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United States Department of the Interior
Bureau of Land Management

Environmental Assessment
for the
May 2012 Oil and Gas Lease Sale

White River Field Office
220 E Market St
Meeker, CO 81641

DOI-BLM-CO-110-2011-0178-EA

December, 2011

ENVIRONMENTAL ASSESSMENT

NUMBER: DOI-BLM-CO-110-2011-0178-EA

PROJECT NAME: May 2012 Oil and Gas Lease Sale, White River Field Office

LEGAL DESCRIPTION: Please see Attachments A, B, and C

APPLICANT: Bureau of Land Management (BLM) Colorado State Office

BACKGROUND/INTRODUCTION:

It is the policy of the Bureau of Land Management (BLM) as derived from various laws, including the Mineral Leasing Act of 1920 and the Federal Land Policy and Management Act of 1976, to make mineral resources available for disposal and to encourage development of mineral resources to meet national, regional, and local needs.

The BLM Colorado State Office conducts a quarterly competitive lease sale to sell available oil and gas lease parcels. A Notice of Competitive Lease Sale (NCLS), which lists lease parcels to be offered at the auction, is published by the BLM State Office at least 90 days before the auction is held. It gives the particulars regarding the conduct of the sale. Lease stipulations applicable to each parcel are specified in the Sale Notice.

In the process of preparing a lease sale, the BLM State Office sends a draft parcel list to each field office where the parcels are located. Field Office staff then review the legal descriptions of the parcels to determine if they are in areas open to leasing, if appropriate stipulations have been included, if new information has become available which might change any analysis conducted during the planning process, if appropriate consultations have been conducted, and if there are any special resource conditions of which potential bidders should be made aware. Once the draft parcel review is completed and returned to the State Office, a list of available parcels and stipulations is made available to the public through a NCLS.

Lease stipulations are posted on the Colorado BLM website
http://www.blm.gov/co/st/en/BLM_Programs/oilandgas/leasing.html

On rare occasions, additional information obtained after the publication of the NCLS may result in withdrawal of certain parcels prior to the day of the sale.

The WRFO encompasses 2.675 million acres of land located in northwestern Colorado, primarily in Rio Blanco County, but also includes a small portion of Garfield and Moffat counties. Approximately 2.2 million acres (83 percent) overlie federal mineral estate. Approximately 1.7 million acres of BLM administered oil and gas mineral estate are available for oil and gas leasing, of which 73 percent are currently under federal oil and gas leases. Nearly 294,899 acres of federal lands, including lands in the National Park System, lands designated as wilderness areas, and BLM wilderness study areas are not available for oil and gas leasing.

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The WRFO has a long history of oil and gas drilling and production activity, with over 5,800 wells having been drilled since the early 1920s. Many of those wells are located on the western portion of the WRFO in the Rangely oil field. Extensive natural gas resources exist in the geologic Piceance Basin covering much of the WRFO. The Mesaverde Gas Play area for natural gas is located in the northern Piceance Basin and is characterized by Upper Cretaceous tight gas sand reservoirs occurring in a concentrated area involving 712,190 acres in the central portion of the field office (BLM 2007).

The following Environmental Assessment (EA) documents the review of the parcels offered in the May 2012 Competitive Oil and Gas Lease Sale that are under the administration of the White River Field Office (WRFO). It serves to verify conformance with the approved land use plan and provides the rationale for deferring or dropping parcels from a lease sale as well as providing rationale for attaching additional lease stipulations to specific parcels.

The decision as to which parcels are available for leasing and which stipulations may be applicable is made during the land use planning process. Surface management of split-estate lands overlying federally owned minerals is determined by BLM in consultation with the appropriate surface management agency or the private surface owner.

A total of 33 parcels are being considered for the May 2012 Colorado Competitive Oil and Gas Lease Sale. Fourteen of these parcels were previously considered for either the May 2011 or August 2011 lease sale and have already been analyzed in an environmental assessment. Parcels that were deferred from the May or August 2011 lease sales (to allow time for the BLM to meet with proponents of Master Leasing Plans) and carried over to the May 2012 lease sale were given new parcel numbers. Table 1 identifies how parcels were labeled previously and the documents in which they were analyzed. No further discussion or analysis of these parcels is contained in this EA. The remaining 19 parcels are considered in this EA.

Table 1. Parcel Numbers as Originally Labeled for the May/August 2011 Lease Sale and as Currently Labeled for the May 2012 Lease Sale

May 2012 Parcel Number	Previous Lease Sale	Previous Parcel Number	Environmental Assessment
6152	May 2011	5859	DOI-BLM-CO-110-2010-267-EA
6154	May 2011	5855	DOI-BLM-CO-110-2010-267-EA
6155	May 2011	5858	DOI-BLM-CO-110-2010-267-EA
6156	May 2011	5839	DOI-BLM-CO-110-2010-267-EA
6157	May 2011	5851	DOI-BLM-CO-110-2010-267-EA
6158	May 2011	5854	DOI-BLM-CO-110-2010-267-EA
6159	May 2011	5862	DOI-BLM-CO-110-2010-267-EA
6160	May 2011	5863	DOI-BLM-CO-110-2010-267-EA
6186	August 2011	6003	DOI-BLM-CO-110-2011-056-EA
6161	May 2011	5834	DOI-BLM-CO-110-2010-267-EA
6185	August 2011	6007	DOI-BLM-CO-110-2011-056-EA
6162	May 2011	5845	DOI-BLM-CO-110-2010-267-EA
6184	August 2011	6004	DOI-BLM-CO-110-2011-056-EA
6181	August 2011	6006	DOI-BLM-CO-110-2011-056-EA

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PURPOSE & NEED FOR THE ACTION: The purpose of offering parcels for competitive oil and gas leasing is to allow private individuals or companies to explore and develop oil and gas resources for sale on public markets. The sale of oil and gas leases is needed to meet the "present and future [energy] needs of the American people" 43 U.S.C. § 1702 (c). Production of oil and gas resources on public lands contributes to decreasing the dependence of the United States on foreign energy sources, which is a BLM policy that complies with the Mining and Minerals Policy Act of 1970. Continued leasing is necessary to maintain options for production as oil and gas companies seek new areas for production or attempt to develop previously inaccessible or uneconomical reserves.

Decision to be Made: The BLM will determine whether or not to offer parcels for competitive oil and gas leasing, and if so, under what terms and conditions.

SCOPING, PUBLIC INVOLVEMENT, AND ISSUES:

Scoping: Scoping was the primary mechanism used by the BLM to initially identify issues. Internal scoping was initiated when the project was presented to the White River Field Office (WRFO) interdisciplinary team on 10/18/2011. External scoping was conducted by posting this project on the WRFO's on-line National Environmental Policy Act (NEPA) register on 11/15/2011. Additionally a public comment period was held from 12/05/2011 to 01/04/2012.

Issues Identified: Internal scoping initially identified potential concerns regarding oil and gas leasing within the Thornburgh Battlefield viewshed, the Jensen State Wildlife Area, lands potentially containing wilderness characteristics, and sage-grouse nesting and winter habitat.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:

Proposed Action: Nineteen new parcels comprising approximately 29,161 acres in the WRFO are proposed for leasing in the May 2012 Colorado Competitive Oil and Gas Lease Sale (see Attachment A for complete legal descriptions). These parcels would be offered at public auction. Following the auction, any unsold parcels could be sold non-competitively.

Two of these parcels straddle the administrative boundary between the WRFO and the Little Snake Field Office (LSFO). Approximately 13 acres of parcel 6176 and 1,046 acres of parcel 6173 occur within the LSFO. In general, each lease would be issued subject to stipulations identified in the 1997 White River Record of Decision and Approved Resource Management Plan (ROD/RMP). However, aliquot portions (i.e., down to a quarter/quarter) of parcels 6176 and 6173 that occur wholly within the boundary of the LSFO will be subject to stipulations identified in the 2011 Little Snake Record of Decision and Approved Resource Management Plan. These stipulations are specified in the attached parcel listing (Attachments C, F). Additional site specific analyses would take place upon submission of individual Applications for Permits to Drill (APD).

Once sold, the lease purchaser would have the right to use as much of the leased lands as is reasonably necessary to explore and drill for all of the oil and gas resources within the lease boundaries, subject to the stipulations attached to the lease (43 CFR 3101). Oil and gas leases are issued for a 10-year period and continue for as long thereafter as oil or gas is produced in paying quantities. If a lease holder fails to produce oil and gas, does not make annual rental payments, does not comply with the terms and conditions of the lease, or relinquishes the lease, ownership of the minerals leased reverts back to the federal government and the lease can be resold. Drilling of wells on a lease would not be permitted until the lease owner or operator meets the site specific requirements specified in 43 CFR 3162.

No Action Alternative: The BLM NEPA Handbook (H-1790-1) states that for Environmental Assessments (EAs) on externally initiated Proposed Actions, the No Action Alternative generally means that the Proposed Action would not take place. In the case of a lease sale, this would mean that an expression of interest to lease (parcel nomination) would be denied or rejected.

The No Action Alternative would withdraw these nineteen new lease parcels from the May 2012 lease sale. The parcels would remain available for inclusion in future lease sales. Surface management would remain the same and ongoing oil and gas development would continue on surrounding private, State, and Federal leases.

No mitigation measures would be required as no new oil and gas development would occur on the unleased lands. No rental or royalty payments would be made to the Federal government. It is not expected that demand would decrease. It is likely that continuing demand would be addressed through production elsewhere.

It is an assumption that the No Action Alternative (no lease option) may result in a slight reduction in domestic production of oil and gas. This would likely result in reduced Federal and State royalty income. Oil and gas consumption is driven by a variety of complex interacting factors including energy costs, energy efficiency, availability of other energy sources, economics, demographics, and weather or climate. If the BLM were to forego its leasing decisions and potential development of those minerals, the assumption would be that the public's demand for the resource would not be expected to change. Instead, the resource foregone would be replaced by other sources that may include a combination of imports, fuel switching, alternative fuels, and other domestic production.

PLAN CONFORMANCE REVIEW: The Proposed Action is subject to and has been reviewed for conformance with the following plans (43 CFR 1610.5, BLM 1617.3):

All Parcels:

Name of Plan: White River Record of Decision and Approved Resource Management Plan (White River ROD/RMP).

Date Approved: July 1, 1997

Decision Number/Page: 2-5

Decision Language: "Make federal oil and gas resources available for leasing and development in a manner that provides reasonable protection for other resource values."

Portions of Parcel 6176 and 6173 that are within the Little Snake Field Office:

Name of Plan: Little Snake Record of Decision and Resource Management Plan (RMP)

Date Approved: October 2011

Decision Number/Page: Section 2.13 Energy and Minerals/page RMP-36

Decision Language: "Allow for the availability of the federal oil and gas estate (including coalbed natural gas) for exploration and development. Objectives for achieving these goals include:

- Identify and make available the federal oil and gas estate (including coalbed natural gas) for exploration and development.
- Facilitate reasonable, economical, and environmentally sound exploration and development of oil and gas resources (including coalbed natural gas)."

AFFECTED ENVIRONMENT & ENVIRONMENTAL CONSEQUENCES

Standards for Public Land Health: In January 1997, the Colorado BLM approved the Standards for Public Land Health. These standards cover upland soils, riparian systems, plant and animal communities, special status species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands.
Since the lease sale itself causes no surface disturbance, these standards will be addressed in subsequent environmental analyses required for specific lease development.

Cumulative Effects Analysis Assumptions: Cumulative effects are defined in the Council on Environmental Quality (CEQ) regulations (40 CFR 1508.7) as "...the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions." Table 2 lists the past, present, and reasonably foreseeable future actions within the area that might be affected by the Proposed Action; for this project the area considered was the White River Field Office. However, the geographic scope used for analysis may vary for each cumulative effects issue and is described in the Affected Environment section for each resource.

Table 2. Past, Present, and Reasonably Foreseeable Actions

Action Description	STATUS		
	Past	Present	Future
Livestock Grazing	X	X	X
Wild Horse Gathers	X	X	X
Recreation	X	X	X
Invasive Weed Inventory	X	X	X

Action Description	STATUS		
	Past	Present	Future
and Treatments			
Range Improvement Projects : Water Developments Fences & Cattleguards	X	X	X
Wildfire and Emergency Stabilization and Rehabilitation	X	X	X
Wind Energy Met Towers			X
Oil and Gas Development: Well Pads Access Roads Pipelines Gas Plants Facilities	X	X	X
Power Lines	X	X	X
Seismic	X	X	X
Vegetation Treatments	X	X	X

Affected Resources:
The CEQ Regulations state that NEPA documents "must concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail" (40 CFR 1500.1(b)). While many issues may arise during scoping, not all of the issues raised warrant analysis in an environmental assessment. Issues will be analyzed if: 1) an analysis of the issue is necessary to make a reasoned choice between alternatives, or 2) if the issue is associated with a significant direct, indirect, or cumulative impact, or where analysis is necessary to determine the significance of the impacts. Table 3 lists the resources considered and the determination as to whether they require additional analysis.

Table 3. Resources and Determination of Need for Further Analysis

Determination[1]	Resource	Rationale for Determination
Physical Resources		
PI	Air Quality	See discussion below
PI	Geology and Minerals	See discussion below
PI	Soil Resources*	See discussion below
PI	Surface and Ground Water Quality*	See discussion below
Biological Resources		
PI	Wetlands and Riparian Zones*	See discussion below.
PI	Vegetation*	See discussion below.
PI	Invasive, Non-native Species	See discussion below.

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Determination[1]	Resource	Rationale for Determination
PI	Special Status Animal Species*	See discussion below.
PI	Special Status Plant Species*	See discussion below.
PI	Migratory Birds	See discussion below.
PI	Aquatic Wildlife*	See discussion below.
PI	Terrestrial Wildlife*	See discussion below.
PI	Wild Horses	See discussion below.
Heritage Resources and the Human Environment		
PI	Cultural Resources	See discussion below.
PI	Paleontological Resources	See discussion below.
PI	Native American Religious Concerns	See discussion below.
PI	Visual Resources	See discussion below.
PI	Hazardous or Solid Wastes	See discussion below.
NI	Fire Management	The Proposed Action does not affect fire response.
NI	Social and Economic Conditions	There would not be any substantial changes to local social or economic conditions.
NP	Environmental Justice	According to the most recent Census Bureau statistics (2000), there are no minority or low income populations within the WRFO.
Resource Uses		
NI	Forest Management	Impacts will be addressed in individual NEPA documents as APDs are processed.
PI	Rangeland Management	See discussion below.
PI	Floodplains, Hydrology, and Water Rights	See discussion below
PI	Realty Authorizations	See discussion below.
PI	Recreation	See discussion below.
NI	Access and Transportation	The dispersed nature of the parcels would likely not result in effects to transportation. Impacts from site specific developments will be analyzed as they are proposed.
NP	Prime and Unique Farmlands	There are no Prime and Unique Farmlands within the project area.
Special Designations		
PI	Areas of Critical Environmental Concern	See discussion below

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Determination[1]	Resource	Rationale for Determination
NP	Wilderness	There are no designated Wilderness Areas in WRFO.
NP	Wild and Scenic Rivers	There are no Wild and Scenic Rivers in the WRFO.
NP	Scenic Byways	There are no Scenic Byways within the project area.

[1] NP = Not present in the area impacted by the Proposed Action or Alternatives. NI = Present, but not affected to a degree that detailed analysis is required. PI = Present with potential for impact analyzed in detail in the EA.
* Public Land Health Standard

AIR QUALITY AND CLIMATE

Since the White River ROD/RMP was signed in 1997, new information about GHGs and their effects on national and global climate conditions has emerged. On-going scientific research has identified the potential impacts of greenhouse gas (GHG) emissions such as carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), water vapor; and several trace gases on global climate. Through complex interactions on a global scale, GHG emissions cause a net warming effect of the atmosphere, primarily by decreasing the amount of heat energy radiated by the earth back into space. Although GHG levels have varied for millennia (along with corresponding variations in climatic conditions), industrialization and burning of fossil carbon resources have caused GHG concentrations to increase measurably and may contribute to overall climatic changes.

This EA incorporates an analysis of the contributions of the Proposed Action to GHG emissions and a general discussion of potential impacts to climate. Air quality and climate are the components of air resources, which include applications, activities, and management of the air resource. Therefore, the BLM must consider and analyze the potential effects of BLM and BLM-authorized activities on air resources as part of the planning and decision making process.

Air Quality

The U.S. Environmental Protection Agency (EPA) established national air quality standards (NAAQS) for criteria pollutants. Criteria pollutants include carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), particulate matter (PM_{10} and $PM_{2.5}$), sulfur dioxide (SO_2), and lead (Pb). Air pollutant concentrations greater than the NAAQS represent a risk to human health. The EPA has delegated regulation of air quality to the State of Colorado where air quality is administered by the Colorado Department of Public Health and Environment (CDPHE). Colorado Ambient Air Quality Standards (CAAQS) and NAAQS identify maximum limits for concentrations of criteria air pollutants at all locations to which the public has access. The CAAQS and NAAQS are legally enforceable standards. Concentrations above the CAAQS and NAAQS represent a risk to human health that, by law, require public safeguards be implemented. State standards must be at least as protective of human health as Federal standards, and may be more restrictive than Federal standards, as allowed by the Clean Air Act.

Visibility can be expressed in terms of deciviews (dv), a measure for describing perceived changes in visibility. One dv is defined as a change in visibility that is just perceptible to an

average person which is approximately a 10 percent change in light extinction. To estimate potential visibility impairment, monitored aerosol concentrations are used to reconstruct visibility conditions for each day monitored. These daily values are then ranked from clearest to haziest and divided into three categories to indicate the mean visibility for all days (average), the 20 percent of days with the clearest visibility (20 percent clearest), and the 20 percent of days with the worst visibility (20 percent haziest). Visibility can also be defined by standard visual range (SVR), measured in miles, and is the farthest distance at which an observer can see a black object viewed against the sky above the horizon; the larger the SVR, the cleaner the air.
Since 1980 the Interagency Monitoring of Protected Visual Environments (IMPROVE) network has measured visibility in national parks and wilderness areas. These are managed as high visual quality Class I and II areas by the Federal visual resource management (VRM) program. There are IMPROVE stations in Colorado, including two located within the Mount Zirkel and Flat Tops National Wilderness areas.

Atmospheric Deposition
Atmospheric deposition refers to processes in which air pollutants are removed from the atmosphere and deposited into terrestrial and aquatic ecosystems. Air pollutants can be deposited by either wet (precipitation via rain or snow) or dry (gravitational) settling of particles and adherence of gaseous pollutants to soil, water, and vegetation. Much of the concern about deposition is due to secondary formation of acids and other compounds from emitted nitrogen and sulfur species such as nitrogen oxides (NOx) and sulfur dioxide (SO_2), which may contribute to acidification of lakes, streams, and soils and affect other ecosystem characteristics, including nutrient cycling and biological diversity.
Substances deposited include:

- Acids, such as sulfuric (H_2SO_4) and nitric (HNO_3), sometimes referred to as acid rain
- Air toxics, such as pesticides, herbicides, and volatile organic compounds (VOCs)
- Heavy metals, such as mercury
- Nutrients, such as nitrates (NO_{3-}) and ammonium (NH_{4+})

The accurate measurement of atmospheric deposition is complicated by contributions to deposition by several components: rain, snow, cloud water, particle settling, and gaseous pollutants. Deposition varies with precipitation and other meteorological variables (e.g., temperature, humidity, winds, atmospheric stability, etc.), which in turn, vary with elevation and time.

In the Rocky Mountain Region, BLM uses level of concern (LOC) considered to be unlikely to harm terrestrial or aquatic ecosystems for total nitrogen deposition of 3.0 kilograms per hectare per year or less. For total sulfur deposition, the LOC is 5.0 kilograms per hectare per year.

Affected Environment: The proposed lease parcels are located in rural northwest Colorado in the White River Basin, more than ten miles from designated air quality management areas (including Prevention of Significant Deterioration (PSD) Class I or non-attainment areas). Such designated areas may require special consideration from the air quality regulatory agencies of CDPHE and EPA. Industrial facilities in White River Basin include coal mines, soda ash mines, natural gas processing plants, and power plants. Due to these industrial uses, increased local population, and oil and gas development, emissions of air pollutants in the White River

Basin (primarily due to engine exhaust and dust from roads and exposed areas) are likely to increase into the future. Despite increases in emissions, overall air quality conditions in the White River Basin are likely to continue to be good due to effective emission controls and strong atmospheric dispersion conditions.

The BLM recently established two air quality monitoring sites, one in Rangely and one in Meeker, which measure ozone, fine particulate matter, and nitrogen oxides. Also, the cities of Grand Junction, Steamboat Springs, Rifle, and Parachute all host air quality monitoring stations. Available monitoring data at these stations indicate that the ambient concentrations of criteria pollutants are less (better) than the applicable air quality standards (NAAQS and CAAQS). However it should be noted, there is not continuous monitoring of all criteria pollutants at any of the stations. Also, differences in the atmospheric conditions, proximity to emissions, and climate at any of these monitoring sites may not represent specific conditions at individual parcel locations.

The White River Basin and the nearby portions of the Colorado River Basin have been classified as either attainment or unclassified for all air pollutants (NAAQS and CAAQS standards), and most of the area has been designated as Clean Air Act Prevention of Significant Deterioration (PSD) Class II. There are several Class I areas in proximity of the Field Office boundary, including both the Mount Zirkel and Flat Tops Wilderness Areas. Because the historic air quality in the White River Basin has been good, small changes in air quality may have noticeable localized effects, especially on visibility.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: The decision to sell the leases would not result in any direct criteria pollutants, hazardous pollutants, and greenhouse gas emissions. However, the future development of these leases will emit these pollutants. The assessment of GHG emissions and climate change are in a formative phase. While it is not possible to accurately quantify potential GHG emissions in the affected areas as a result of making the proposed tracts available for leasing, some general assumptions however can be made (e.g., the selling the proposed tracts may contribute to drilling new wells). Subsequent development of any leases sold would contribute an incremental increase in overall hydrocarbon emissions, including GHGs. In 2010 the BLM completed an emissions inventory as part of an on-going Oil and Gas Amendment for the White River RMP. The no-action alternative (Alternative A) represents emissions as a result of the current on-going management scenario analyzed in the White River RMP/ROD (see Table 4).

Table 4: Total Project (BLM WRFO) and Non-Project Emissions

		Emissions (tons/yr)						
		NOx	CO	SO_2	PM_{10}	$PM_{2.5}$	VOCs	Benzene
Alternative A	BLM	2,181	4,016	8	4,174	512	17,052	248
	Non-BLM	287	529	1	550	67	2,244	33
	Total	2,468	4,646	9	4,724	580	19,296	281

Table 4 Continued

		Emissions (tons/yr)							
		Toluene	Ethyl-benzene	Xylene	Hexane	For m.	CO_2	CH_4	N_2O
Alternative A	BLM	201	2	97	430	186	1,613,422	42,880	11
	Non-BLM	26	0	13	57	24	212,402	5,645	1
	Total	227	3	110	487	210	1,825,824	48,525	12

While the act of leasing the parcels would produce no significant air quality impacts, potential future development of the lease could lead to surface disturbance from the construction of well pads, access roads, pipelines, and power lines, as well as associated air pollutant emissions from vehicle use, windblown dust, and engine exhausts. Since it is unknown if the parcels would be developed, or the extent of the development, it is not possible to reasonably quantify potential air quality impacts through dispersion modeling at this time. Current emission data (see Table 4) within the project area demonstrates the low potential for air quality impacts. At the APD stage additional air analysis will be completed to evaluate the site specific issues of development proposed in the APD. The site-specific proposal would identify reasonably foreseeable activities, equipment, and locations. All proposed activities including, but not limited to, exploratory drilling activities would be subject to applicable local, State, and Federal air quality laws and regulations. Before the leases can be developed or explored, the impacts from the Proposed Actions would be evaluated as required by Council on Environmental Quality (CEQ) regulations.

Lease development at the APD stage may result in emissions of particulate matter, mainly dust, becoming airborne when drill rigs and other vehicles travel on existing dirt roads to drilling locations. Air quality would also be affected by engine exhaust emissions.

Wells may be drilled during exploration. If the area is for natural gas development, gas may be flared and/or vented to evaluate the characteristics and potential of the resource available. The development stage is likely to include the installation of pipelines for transportation of raw product, as well as possible new gas processing facilities. During this period volatile organic compounds (VOCs) would be released from the reserve pit or tanks and during completion activities.

The parcels are outside the Mesaverde Gas Play area, where it is likely there would be more exploration and the type of development would probably be single well pads with four to eight pads per section. Development of all areas would require road, pipeline and gas processing networks. These networks would result in traffic and air pollutant emissions throughout the development period.

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Soil disturbance resulting from construction of pads and roads, pipeline construction, and drilling is expected to cause increases in fugitive dust and inhalable particulate matter (specifically PM_{10} and $PM_{2.5}$) in the project area and immediate vicinity. In addition, increases in the following criteria pollutants: carbon monoxide, ozone (a secondary pollutant, formed photochemically by combining VOC and NOx emissions), nitrogen dioxide, and sulfur dioxide would also occur due to combustion of fossil fuels during exploration and development activities. Non-criteria pollutants such as carbon dioxide, methane and nitrous oxide (GHGs), air toxics (e.g., benzene), total suspended particulates (TSP), increased impacts to visibility, and atmospheric deposition may also increase as a result of exploration and development (no national ambient air quality standards have been set for non-criteria pollutants). Additional low, short-term impacts to air quality may occur due to venting of gas from the wells during exploration. Even with these increased pollutants, development of only the offered lease parcels is unlikely to exceed NAAQ and CAAQ standards, and is likely to comply with applicable PSD increments and other significant impact thresholds. As described above, exploration and development would release VOCs from pits and tanks and from venting and flaring. Engines used for drilling, transportation, gas processing, compressing gas for pipelines, and other uses would contribute to associated air pollutant emissions.

Cumulative Effects: EPA Region 8 has reported that "In the coming decades, scientists project that climate change will lead to significant changes in the Mountain West and Great Plains" including several specific impacts. The BLM will continue to evaluate the impacts of oil and gas exploration and development in terms on the global climate, and apply appropriate management techniques and BMPs to address changing conditions. Research has identified the general potential impacts of anthropogenic greenhouse gas emissions and their effects on global climatic conditions. These anthropogenic GHGs include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and several trace gases which differentially absorb and emit thermal radiation in the atmosphere and therefore may contribute to climate change. However, current research on climate change impacts is an emerging and rapidly evolving area of science, and given the lack of adequate analysis methods, it is not possible to identify reasonably foreseeable local, regional, or global climate change impacts based on assumed potential GHG emissions. Changes in global temperatures and climate vary significantly with time, and are subject to a wide range of driving factors and complex interrelationships, the level of GHG emissions can generally be quantified and compared to overall estimates to provide some measures of the level and significance of any potential impacts.

Oil and or gas may be developed and produced as part of the proposed lease sale and subsequently utilized to produce energy. The potential GHG impacts associated with the development of the oil and gas resources would be addressed in a subsequent environmental analysis.

Substantial air pollutant (including GHG) emission generating activities cannot occur without further BLM analysis and approval. Based on proposals for exploration and development operations, approval of these activities would be made subject to conditions of approval addressing air pollutant emissions as appropriate.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Impacts: Since there would be no parcels leased for oil and gas development, there would be no additional impacts to air quality under the No Action Alternative based on oil and gas development in these specific lease parcels.

Cumulative Effects: There would be no change to cumulative effects on air resources.

Mitigation: No additional mitigation measures beyond those required by applicable local, State and Federal air quality laws and regulations would be required for leasing. However, additional requirements could be imposed based on site-specific proposals during later approval of exploration and development activities.

GEOLOGY AND MINERALS

Affected Environment: The parcels are located in the Uinta - Piceance Province. Surficial geology of the parcels range from the Tertiary Lower Green River Formation on the western most parcel (6165) to the Jurassic Entrada Glen Canyon Formation on the eastern most parcel (6169). Site specific geology would be analyzed during the Application for Permit to Drill (APD) NEPA process. All parcels, with the exception of approximately 1,800 acres of the eastern portions of parcels 6153 and 6169, are located in an area identified as having high potential for oil and gas development. These portions of parcels 6153 and 6169 are located in area identified as having moderate potential. Approximately 93 percent of the proposed parcels have been previously leased for federal oil and gas minerals. Colorado Oil and Gas Conservation Commission (COGCC) oil and gas well database indicated past well activity has occurred on parcels 6053, 6057, 6058, 6063, 6153, 6165, 6170, 6173, and 6177. Currently authorized federal oil and gas leases exist adjacent to or surrounds the proposed parcels. All of the proposed parcels are located outside the area identified as the Mesaverde Play Area (MPA) in WRFO's 2007 Reasonable Foreseeable Development (RFD) (BLM 2007). The MPA is characterized by Upper Cretaceous tight gas sand reservoirs occurring in a concentrated area involving 712,190 acres in the central portion of the field office in the northern Piceance Basin. It is anticipated 95 percent of WRFO's future oil and gas activity would occur in the MPA.

The eastern portion of the proposed lease parcels 6053, 6057, 6058, 6153, 6166, 6167, 6168, 6169, 6170, and 6210 are located in an area identified in the White River ROD/RMP as available for coal leasing. There are currently no authorized federal coal leases located on the proposed parcels. Colowyo surface coal mine is located less than two miles from the northwest portion of these parcels.

Parcel 6172 is encumbered by unpatented mining claims and in 2010 exploration drilling occurred in the northeast quarter of Section 27 Township 3 North, Range 97 West 6th P.M. of parcel 6172.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: Sale of the parcels would allow development and recovery of oil and natural gas resources in the underlying oil and gas bearing formations. During drilling operations on the parcels, loss of circulation or problems cementing the surface casing may affect freshwater aquifer zones encountered. The WRFO ensures the submitted APD would

contain a casing and cementing program adequate to protect all of the resources, minerals, and fresh water zones, 43 CFR §3162.5-2(d).

Parcels located in the area available for coal leasing (see Affected Environment above) could have potential for future conflict with coal leasing however it is unlikely coal leasing in this area would occur in the foreseeable future. This is based on Colowyo's future mining and development progressing north and west away from this area. It is also unlikely that a conflict would occur between oil and gas development and the unpatented mining claim mineral interest on Parcel 6172.

Cumulative Effects: Approximately 73 percent of BLM-administered federal oil and gas mineral estate within the WRFO is currently leased for oil and gas, a decrease from 80 percent leased in 2007 (BLM 2007). This decrease is attributed to expiration of the ten year lease terms and termination of nonproducing leases. Sale of the proposed parcels would increase the current leased area to 74 percent. Of this leased acreage, approximately 16 percent is split estate. Direct, indirect, and cumulative effects of reasonably foreseeable oil and gas development are analyzed in the White River Resource Area Proposed Resource Management Plan (RMP) and associated final environmental impact statement (EIS), which addresses reasonably foreseeable oil and gas development, including roads and pipelines, over a 20 year period. Approximately 93 percent of the proposed sale parcel area has been previously encumbered with federal oil and gas leases within the last ten years. The impacts of the proposed oil and gas leasing in this EA, as well as cumulative impacts to the Resource Area, are within the scope of and analysis in the existing White River RMP/EIS.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: The recoverable natural gas and oil resources in the oil and gas bearing formations underlying the proposed parcels would not be developed at this time.

Cumulative Effects: There would be no change to cumulative effects on mineral resources.

Mitigation: None.

SOIL RESOURCES

Affected Environment: The magnitude and location of direct and indirect effects on soil resources cannot be predicted until the site-specific proposal are received for exploration and development. Soil classifications for the proposed lease parcels are shown in Table 5.

Table 5: Soil Classifications for Lease Areas Greater than 1 Acre in Size

Soil Classification	Range Site	Acreage
Owen Creek-Jerry-Burnette loams, 5-35% slopes	Brushy Loam	8,041
Rentsac-Moyerson-Rock Outcrop complex, 5-65% slopes	PJ Woodlands/Clayey Slopes	6,108
Rhone-Northwater-Lamphier loams, 3-50% slopes	BrushyLoam/AspenWoodland	2,257
Rentsac-Moyerson complex, 25-65% slopes	Foothill Juniper	2,050

Soil Classification	Range Site	Acreage
Torriorthents-Rock Outcrop complex, 15-90% slopes	Stoney Foothills	1,622
Waybe-Vandamore Variant-RO complex, 5-30% slopes	Dry Exposure	1,241
Torriorthents-Rock Outcrop, Sandstone complex, 30-75% slopes	---	830
Jerry-Thornburgh-Rhone complex, 8-65% slopes	Brushy Loam/Brushy Loam	748
Skyway fine sandy loam,dry, 15-75% slopes	Brushy Loam	601
Jerry loam, 12-45% slopes	Brushy Loam	593
Moyerson-Rentsac Complex, 15-45% slopes	Clayey Slopes	548
Patent loam, 3-8% slopes	Rolling Loam	369
Lamphier-Jerry Complex, 25-65% slopes	Brushy Loam	363
Rentsac channery loam, 5-50% slopes	Pinyon Juniper woodlands	326
Lamphier-Jerry Complex, 3-25% slopes	Brushy Loam	228
Moyerson stony clay loam, 15-65% slopes	Clayey Slopes	222
Glendive fine sandy loam	Foothills Swale	211
Blazon, moist-Rentsac Complex, 6-65% slopes	Pinyon-Juniper woodland	184
Ustorthents, frigid-Borolls complex, 25-75% slopes	---	169
Danavore-Waybe complex, 5-30% slopes	Dry Exposure	148
Rock Outcrop	None	143
Badland	None	138
Yamo loam, 3-15% slopes	Clayey Foothills	129
Mergel-Redthayne-Dollard complex, 8-65% slopes	Loamy Slope/ ClayeyFoothills	129
Rabbitex flaggy loam, 10-65% slopes	Pinyon-Juniper woodland	115
Abor Clay Loam, 5-30% slopes	Clayey Foothills	114
Rock outcrop-Torriorthents complex, 50-75% slopes	---	95
Torrifluvents, gullied	None	76
Kobar silty clay loam, 0-3% slopes	Deep Clay Loam	72
Patent loam, 0-3% slopes	Rolling Loam	69
Piceance fine sandy loam, 5-15% slopes	Rolling Loam	57
Redcreek-Rentsac complex, 5-30% slopes	PJ woodlands/PJ woodlands	47
Billings silty clay loam, 0-5% slopes	Alkaline Slopes	39
Cochetopa loam, 9-50% slopes	Brushy Loam	23
Work Loam, 15-25% slopes	Deep Loam	22
Havre loam, 0-4% slopes	Foothill Swale	20
Cowdrey-Tampico loams, 15-50% slopes	Lodgepole Pine Woodland/ Brushy Loam	19
Jerry-Cochetopa complex, 5-35% slopes	Brushy Loam	18
Lamphier fine sandy loam, 25-65% slopes	Brushy Loam	16
Uffens loam, 0-5% slopes	Alkaline Slopes	16
Work Loam, 8-15% slopes	Deep Loam	14
Bulkley-Abor clay loams, 5-30% slopes	Clayey Foothills	13

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Soil Classification	Range Site	Acreage
Pricecreek clay loam, 0-4% slopes	Clayey Foothills	12
Pinelli loam, 3-12% slopes	Clayey Foothills	12
Hesperus fine sandy loam, dry, 2-15% slopes	Mountain Loam	10
Forelle loam, 3-8% slopes	Rolling Loam	10
Turley fine sandy loam, 3-8% slopes	Alkaline Slopes	8
Silas loam, 0-8% slopes	Mountain Swale	8
Tisworth fine sandy loam, 0-5% slopes	Alkaline Slopes	5
Pinridge loam, 1-12% slopes	Foothill Swale	5
Rhone loam, 30-75% slopes	Brushy Loam	5
Shawa loam, 1-3% slopes	Deep Loam	5
Pinelli clay laom, 3-12% slopes	Clayey Foothills	4
Rentsac-Piceance complex, 2-30% slopes	PJ woodland/Rolling Loam	4
Lamphier-Tampico-Kamack loams, 5-60% slopes	Aspen woodlands/Brushy Loam	4
Colorow sandy loam	Sandy Saltdesert	3
Silas Variant loam	Mountain Swale	3
Water	None	2
Schooner-Rock outcrop complex, 5-45% slopes	Sandy Juniper	2
Dollard silty clay loam, 15-40% slopes	Clayey Foothills	2
Yamac Loam, 2-15% slopes	Rolling Loam	1
Turley fine sandy loam, 0-3% slopes	Alkaline Slopes	1

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: The Proposed Action would allow the subsequent exploration and development of lease parcels. Exploration and development would include building well pads, access roads, installation of pipelines, etc., which would physically disturb soils. Estimates for well pad density would be one to two pads during exploration and four to eight single well pads during development. Since all of the parcels occur outside of the Mesaverde Play Area, single well pads are assumed for this analysis, but multi-well pads are possible, and the size of well pads would depend on the number of wells and the type of drilling that is being done.

Direct impacts resulting from the construction of well pads, access roads, pipelines, and reserve pits would include removal of vegetation, exposure of the soil, mixing of horizons, compaction, loss of topsoil productivity, susceptibility to wind and water erosion, loss of topsoil productivity, and the potential for contamination of soils with petroleum constituents. These impacts would likely result in increased indirect impacts such as runoff, erosion, and off-site sedimentation. This increased surface run-off could be expected in areas downstream of surface disturbance, potentially causing increased sheet, rill, and gully erosion in some areas.

Decreased soil productivity as a result of the loss or reduction in productivity of topsoil has the potential to hinder revegetation efforts and leave soils further exposed to erosion. Grading, trenching, and backfilling activities may cause mixing of the soil horizons, which could diminish soil fertility and reduce the potential for successful revegetation. Segregation of soils would result in the mixing of soil horizons, resulting in a blending of soil characteristics and types. This

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blending would modify physical characteristics of the soils, including structure, texture, and rock content, which could lead to reduced permeability and increased runoff from these areas.

The erosion potential for the soil types to be disturbed in the parcels ranges from slight to very high. Impacts are directly related to the erosion potential of soils and the steepness of the slopes in the proposed lease areas.

Contamination of surface and subsurface soils can occur from leaks or spills of oil, produced water, and condensate liquids from wellheads, produced water sumps, and condensate storage tanks. Leaks or spills of drilling and hydraulic fracturing chemicals, fuels, and lubricants could also result in soil contamination. Such leaks or spills could compromise the productivity of the affected soils. Depending on the size and type of spill, the impact to soils would primarily consist of the loss of soil productivity. Typically, once detected, the contaminated soils would be removed and disposed of in a permitted facility, or would be bioremediated in place using techniques such as excavating and mulching to increase biotic activities that would break down petrochemicals into inert and/or common organic compounds.

The 1997 White River ROD/RMP has lease stipulations for the protection of soils with landslide potential (NSO-1), and requires a construction/reclamation plan for fragile soils on slopes greater than 35 percent (CSU-1). These lease stipulations were reviewed and applied based on data from 10 meter digital elevation model (DEM) data and the USDA Soil Survey for Rio Blanco County. Of the total proposed lease acres about 28 percent of the area (8,068 acres) is in fragile soils, another 748 acres is identified as having soils with landslide potential, 4,336 acres have slopes greater than 50 percent and about 21 acres have saline soils. All of the lease parcels have portions (aliquots) with fragile soils and will be subject to WRFO's CSU-1 or the LSFO's fragile soil CSU, as appropriate based on administrative boundaries.

Table 6: Summary of Lease Parcel Attributes

Parcel #	Township	Range	Acres	NSO-1 (%)	CSU-1 (%)
5967	2N	96W	364	34%	54%
6053	2N	92W	1,123	30%	54%
6057	2N	93W	1,358	23%	53%
6058	2N	93W	1,109	12%	37%
6063	1S	103W	2,560	4%	4%
6153	2N	92W	1,839	40%	22%
6165	1S	103W	2,400	6%	9%
6166	3N	92W	2,383	20%	38%
6167	3N	92W	224	69%	81%
6168	3N	93W	2,322	6%	14%
6169	2N	92W	767	70%	48%
6170	3N	93W	2,559	17%	40%
6172	3N	97W	760	0%	1%
6173	4N	95W	2,547	29%	50%
6176	3N	95W	1,020	16%	36%

6177	3N	98W	2,534	18%	32%
6187	3N	97W	670	24%	38%
6188	3N	98W	2,403	5%	7%
6210	3N	93W	225	25%	50%

Landslides are the rapid downhill movement of a mass of soil and loose rock, generally when wet and saturated. The White River ROD/RMP applies an NSO in areas that are considered unstable and subject to slumping and mass movement. Short sections of roads and linear features such as pipelines could still be constructed in areas with steep slopes depending on construction techniques and will be allowed based on a site specific analysis. Based on 10 meter DEM data, lease parcel 6167 has more than 50 percent of its area on slopes greater than 50 percent. All but 4 of the parcels (6165, 6188, 6063 and 6172) have over 10 percent of their areas with slopes that are greater than 50 percent. Leases with less than 10 percent of their land area as NSO could be developed from surfaces without steep slopes.

Soils on slopes greater than 50 percent are unstable and unusable from the standpoint of building roads (8,068 acres), infrastructure and drill pad locations and construction in these areas could increase the risk of landslides. Construction and use of roads, structures, and drill pad locations in these areas would likely destabilize soils, would result in severe cut and fill slopes, and would be extremely difficult to reclaim. These direct impacts would result in increased potential to destabilize slopes in these areas and it is likely they would be subject to slumping and mass movement even after reclamation. Parcel 6169 has the greatest percentage of slopes (70 percent) greater than 50 percent (see Table 6). Applying an NSO-1 in these areas would only leave 30 percent of the lease areas available for locating infrastructure and drilling pads. Therefore this NSO application may impede the development of the mineral resources in this lease parcel to slopes that may have landslide potential.

Cumulative Effects: The cumulative effects analysis area is the boundary of the lease parcels. Impacts to soil in these areas from activities other oil and gas development includes dispersed recreation (mostly hunting) and livestock grazing. Dispersed recreation may result in erosion in some localized areas from vehicle use. Livestock grazing would reduce canopy cover and lead to localized erosion in some areas. In general, soil disturbance within the boundaries of the lease parcels are likely to reduce soil productivity and may lead to increased erosion and instability of soils in local areas.

Environmental Consequences of the No Action Alternative: There would be no direct, indirect, or cumulative impacts to the soils from oil and gas development under the No Action Alternative.

Mitigation: For the purpose of protecting areas from slumping and mass movement of soils or landslides, WR-NSO-01 lease stipulation should be applied on aliquot parts with greater than 10 percent of the aliquot part having slopes steeper than 50 percent as identified by the 10-meter DEM slope data of the lands within the proposed parcels (see Attachment C). These lands can still be leased and the mineral resources explored and developed from surrounding areas within aliquot parts with more moderate slopes. Specific locations within aliquot parts that have slopes

steeper than 50 percent would be identified during site specific proposals for exploration and development.

All of the lease parcels with fragile soils on slopes greater than 35 percent are subject to Exhibit WR-CSU-01 or Exhibit LSFO RMP (October 2011) –CSU to protect fragile soils and slopes greater than 35 percent, as appropriate based upon administrative boundaries (see Attachment C).

WATER QUALITY, SURFACE AND GROUND

Affected Environment: Surface Water: Parcel 6187 has a portion located in the active channel of the White River and includes portions in the flood plain of the White River. These aliquots in lease parcel 6187 also have saline soils (3N 98W Section 30 Lot 12, E2SE). Lot 12 will have an NSO-1 for Landslide potential and the E2SE will have a CSU-1 stipulation for fragile soils. Lease parcels 6063 and 6165 are in Cottonwood Creek, which is a large ephemeral system that is tributary to the White River. Lease parcel 5967 is located in Tschuddi Gulch that drains into Blacks Gulch and the White River, the terrain is particularly steep. Parcels 5967, 6053 and 6057 all have over 50 percent of their land areas identified as having landslide potential. Parcels 6173 and 6176 are in particularly steep terrain that drains into Deep Channel, a large ephemeral system, and also into Strawberry Creek, both tributary to the White River. Lease parcels 6053, 6057, 6058, 6153, 6166, 6167, 6168, 6169, 6170, and 6210 contain portions that drain to the Yampa River and are also in particularly steep country.

Most of the lease parcels do not have adequate local roads and would need a road network established to do exploration and development of the fluid minerals. In general, road construction would be difficult due to the pervasive steep slopes in many of the lease parcels. Exploration and development activities in these parcels would be assessed for environmental impacts based on the water quality classification for the locations before they would be approved.

Groundwater: Precipitation moves from areas of recharge to surface waters via alluvial aquifers and on the surface during spring melt and rain storms. A portion of annual precipitation infiltrates to deeper bedrock aquifers that may contribute to springs. Springs and groundwater inputs generally occur in both bedrock and alluvial aquifers along valley bottoms. Many of the drainages have interrupted flow characteristics (i.e., some reaches are ephemeral with water moving in the alluvium and other reaches there is surface expression) as a result of groundwater recharge characteristics.

Environmental Consequences of the Proposed Action: This lease sale would lease parcels with stipulations to protect soil resources. There are no specific lease stipulations for water resources for the WRFO, however NSO-1 and CSU-1 are protective of fragile soils and steep slopes and would help protect areas from excessive erosion that could impact water quality. For example there are no direct impacts expected from lease parcels adjacent to the White River due to the NSO-1 stipulation for lot 12 of 3N 98W Section 30 and a CSU-1 stipulation on the E2SE of 3N 98W Section 30. Also, portions of 6173 in LSFO are subject to CO-28 and LSFO RMP's NSO to protect perennial water sources.

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Direct and Indirect Effects, Surface Water: Clearing, grading, and soil stockpiling activities associated with exploration and development actions would alter overland flow and natural groundwater recharge patterns. Potential impacts include surface soil compaction caused by construction equipment and vehicles, which would likely reduce the soil's ability to absorb water, increasing the volume and rate of surface runoff. New oil and gas roads and pads could intersect shallow groundwater along cut slopes and alter channel and floodplain characteristics at drainage crossings. The combination of increased surface runoff, decreased infiltration and changes in drainage features would likely result in increased peak flows and an increase in the frequency and extent of flooding downstream in proportion to the amount of area in a watershed that is impacted by oil and gas development activities.

The success or failure of Best Management Practices (BMPs) designed to manage stormwater and reduce erosion during construction and operation of oil and gas facilities will determine much of the impact with regard to surface waters. However, since many of the areas considered in the sale are dominated by steep slopes and do not have local road networks, BMPs are likely to be inadequate to mitigate impacts from road construction.

Runoff associated with storm events would likely increase sediment/salt loads in surface waters down gradient of the disturbed areas. Sediment may be deposited and stored in minor drainages where it would be readily moved downstream during heavy convection storms. Sediment from future development activity may be carried into Yampa River and the White River where water quality classifications could be exceeded. The distance of most lease parcels to potentially impacted surface waters would have an attenuating effect on the amount of sediment and salt contributed by lease exploration and development activities. Surface erosion would be greatest during the construction and would be controlled using BMPs designed to minimize stormwater impacts.

The magnitude of the impacts to surface water resources from future development activities depends on the proximity of disturbances to drainage channels; slope, aspect, and gradient; degree and area of soil disturbance; soil character; duration of construction activities; and the timely implementation and success/failure of mitigation measures. Natural factors which attenuate the transport of sediment and salts into creeks include water available for overland flow; the texture of the eroded material; the amount and kind of ground cover; the slope shape, gradient, and length; and surface roughness. Impacts would likely be greatest shortly after the start of construction activities and would likely decrease in time due to stabilization, reclamation, and revegetation efforts.

Direct and Indirect Effects, Groundwater: Impacts to groundwater resources could occur due to failure of well integrity, failed cement, surface spills, and/or the loss of drilling, completion, and hydraulic fracturing fluids into groundwater. Types of chemical additives used in drilling activities may include acids, hydrocarbons, thickening agents, lubricants, and other additives that are operator and location specific. Concentrations of these additives also vary considerably and are not always known since different mixtures can be used for different purposes in gas development and even in the same well bore. Loss of drilling fluids may occur at any time in the drilling process due to changes in porosity or other properties of the rock being drilled through for both the surface casing and the production hole. When this occurs, drilling

fluids may be introduced into the surrounding formations which could include freshwater aquifers, if it occurs when drilling the surface casing.

Hydraulic fracturing is designed to change the producing formations' physical properties by increasing the flow of water and gas around the well bore. Hydraulic fracturing may also introduce chemical additives into the producing formations. Chemical additives used in completion activities for the well will be introduced into the producing formations, but should mostly be pumped back out before production. Production zones generally do not contain freshwater. Hydraulic fracturing is designed to change the producing formations' physical properties by increasing the flow of water, gas and/or oil around the well bore. This change in physical properties may open up new fractures or enhance existing fractures that could result in freshwater aquifers being contaminated with natural gas, condensate, and/or chemicals used in drilling, completion, and hydraulic fracturing. Some or all of the produced water from these leases is likely to be injected in wells for disposal; although these injection wells are regulated to avoid impacts to freshwater aquifers it may occur due to unknown fractures and changes in pressure. If contamination of freshwater aquifers from oil and gas development occurs, changes in groundwater quality could impact springs and residential wells if these springs and residential wells are sourced from the same aquifers that have been affected.

Known water bearing zones in the project area are generally protected by drilling requirements and reviewed as part of the drilling plan that is contained in the Application for Permit to Drill (APD). Groundwater resources include the contact springs, perched aquifers, and groundwater zones described in the Affected Environment. With proper drilling and completion practices contamination of groundwater resources is unlikely.

Cumulative Effects: The cumulative effects analysis area is the boundary of the lease parcels and portions of the White and Yampa River below the parcels. Impacts in these areas to water resources from activities other than oil and gas development includes dispersed recreation (mostly hunting) and livestock grazing. Both the White and Yampa River receive surface discharges from coal mines. The Yampa River is in proximity to Steamboat Springs, Hayden and Craig north of the lease parcels and there is a power plant near Craig. Dispersed recreation in the lease parcels may result in erosion in some localized areas from vehicle use. Livestock grazing would reduce canopy cover and lead to localized erosion in some areas. In general, surface disturbance within the boundaries of the lease parcels are likely to lead to increased erosion and instability of soils in local areas which would increase sediment and salt loading in surface waters. There will be some loss of water quality characteristics in groundwaters that may or may not be used as water sources in the future. Additional loads of salts and sediment would likely occur in the White River and the Yampa River that would add to the surface discharges from coal mines, the power plant near Craig and municipal discharges of treated sewage. Oil and gas exploration and development would likely add to sediment and salt loads, but may not be measurable.

Environmental Consequences of the No Action Alternative: There would be no direct, indirect of cumulative impacts to the soils from oil and gas development under the No Action Alternative.

Mitigation: See mitigation in the Soil Resources section. Additional site-specific mitigation measures will be implemented at the APD stage based on the submitted Surface Use and Drilling Plans.

WETLANDS AND RIPARIAN ZONES

Affected Environment: Several of the proposed lease parcels encompass perennial or intermittent systems that support riparian species including sedge, rush, willow and box elder . These systems are listed in Table 7 below.

Table 7: Parcels Supporting Riparian Communities

Parcel Number	Approx. length of channel involved (miles)	Channel Name
6187	0.80	Crooked Wash
6187	0.15	White River
6177	1.15	Crooked Wash
6173	0.50	Price Creek
6173	0.25	Temple Gulch
6176	0.16	Price Creek
6153	1.0	Beaver Creek
6058	1.16	James Creek
6057	1.11	James Creek
6170	0.15	James Creek
6170	0.60	Little Creek
6168	1.10	Elkhorn Creek
6166	1.60	Little Creek

Those systems which occur on BLM-administered lands (Crooked Wash - parcels 6187 and 6177, Price Creek – parcels 6173 and 6176, and Beaver Creek – parcel 6153) are considered to be in proper functioning condition.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: Although specific influences associated with lease development cannot be predicted at the leasing stage, management direction in the White River ROD/RMP requires that land use activity that degrades riparian habitat be avoided where possible. BLM policy and current White River ROD/RMP decisions allow for the site-specific development of COAs at the APD stage that are effective in substantially reducing direct involvement and indirect influences on riparian vegetation and channel function, including facility relocations of up to 200 meters and providing for rapid stabilization and restoration in the event of unavoidable involvement (e.g., typically linear alignments).

Although there is potential for oil and gas development to contribute sediment loads to aquatic systems, there is no reasonable likelihood that siting adjustments, State and federally-imposed sedimentation and storm-control measures, and WRFO reclamation strategies would fail to provide adequate means to effectively prevent substantive off-site transport and delivery of sediments or fluids that may impair downstream riparian or aquatic conditions. Associated

infrastructure that may extend off-lease (e.g., pipelines) is likely to follow more gentle ridgeline grades, but in any case, linear facilities would be subject to WRFO RMP-prescribed resource avoidance criteria. With the opportunity to avoid more erosion prone situations and apply modern technologies and standards as necessary to stabilize soils and achieve effective reclamation, there is little likelihood that lease development within these parcels would negatively influence riparian characteristics of those systems involved.

Nearly 400 meters of Temple Gulch intersect portions of parcel 6173 occurring in the Little Snake Resource Area. With the application of CO-28 and LSFO's NSO for perennial water sources, impacts to riparian communities would be effectively avoided and/or minimized.

Cumulative Effects: The actual leasing of the parcels would not contribute to existing disturbances, nor is future development expected to have any measurable contribution cumulatively to riparian character. Avoidance of riparian habitats, reclamation strategies and State and federally-imposed sediment and storm-control measures provide effective means of controlling excess sediment transport to those systems that support riparian communities.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: There would be no action authorized that would have potential to influence riparian zones and wetlands.

Cumulative Effects: There would be no additional contribution to previous, existing, or future disturbances under this alternative.

Mitigation: Mitigation measures, including but not limited to pad, road and pipeline relocation, bank stabilization and/or restoration would be developed through an environmental analysis of a site specific application for permit to drill.

Portions of parcel 6173 that are within the LSFO, will be subject to CO-28, which is a CSU designed to protect perennial water impoundments and streams, and/or riparian/wetland vegetation by moving oil and gas exploration and development beyond the riparian vegetation zone. Perennial water sources within portions of parcel 6173 within the LSFO will be protected by an NSO stipulation.

VEGETATION

Affected Environment: The range sites and acres potentially affected by the Proposed Action are shown in Table 8 below, which includes BLM, State and private lands. The exact impacts to vegetation cannot be determined until site specific proposals have been submitted to WRFO for analysis.

Table 8: Range Sites within the Proposed Lease Parcels

Range Site	BLM	State	Pvt	Total
Alkaline Slopes	30	6	30	70
Brushy Loam	2600	1360	2560	6520

BrushyLoam/AspenWoodland	190	380	670	1240
Clayey Foothills	430	0	0	430
Clayey Slopes	1280	0	0	1280
Deep Clay Loam	70	0	0	70
Deep Loam	20	0	0	20
Dry Exposure	350	80	400	830
Foothill Juniper	2800	0	2	2800
Foothill Swale	340	0	20	360
LoamySlopes/ClayeyFoothills	20	0	95	115
Mountain Loam	10	0	0	10
Mountain Swale	0	2	6	10
None (Badlands/Gullied)	290	0	0	290
Pinyon-Juniper woodland	1670	0	0	1670
PJ woodland/Rolling Loam	4	0	0	4
PJ Woodlands/Clayey Slopes	6300	0	0	6300
Rolling Loam	970	0	0	970
Sandy Juniper	2	0	0	2
Sandy Saltdesert	3	0	0	3
Stoney Foothills	770	0	320	1090
Total:	18149	1828	4103	24084

Note: Acreages in the above table do not sum exactly to the total acreage being proposed for leasing since the above acreage analysis was done in GIS and is not based on direct calculations from the legal descriptions.

The White River ROD/RMP objectives for vegetation management are to "… sustain a landscape composed of plant community mosaics that represent successional stages and distribution patterns that are consistent with natural disturbance and regeneration regimes, and compatible with the goals identified in Standard Three of the Standards for Public Land Health."[1] In general desired plant communities are managed in an ecological status of high-seral or healthy mid-seral for all rangeland plant communities within the WRFO.

In general most parcels in the lease area are currently meeting land health standards and would be classified at mid to late-seral. There are some areas within parcels 6063 6165, 6172, 6177, and 6187 that may be classified as early seral and are not currently meeting land health standards. This is generally as a result of a lack of desirable vegetation, ground cover, and diversity. Cheatgrass (*Bromus tectorum*) along with other undesirable invasive annuals, generally make up the majority of the ground cover and do not have root structures capable of anchoring and protecting soils in the area. Vegetation conditions would be further evaluated during the onsite inspections for individual oil and gas activities if they are proposed.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: Specific impacts associated with vegetation cannot be predicted at the leasing stage, however, management direction in the White River ROD/RMP

[1] http://www.blm.gov/co/st/en/BLM_Programs/grazing/rm_stds_guidelines.html

allows for the site-specific development of COAs at the APD stage, including facility relocations of up to 200 meters and providing for rapid stabilization and restoration. Generally oil and gas development involves complete removal of vegetation and at times re-contouring of the landscape to allow resources to be retrieved. Vegetation is removed in an amount commensurate with the level of oil and gas development. COAs, including reclamation/restoration procedures, are developed at the approval stage and are followed throughout the life of the development. These COAs generally include plans for interim reclamation, re-seeding, re-contouring, and soil stabilization on the site. With appropriate COAs all developed land ultimately will be reclaimed and restored, albeit in some instances up to 30 years after initial disturbance. The type of ground-disturbing activity associated with oil and gas development does result in increased susceptibility to adverse impacts such as weed infestations and erosion (See Soil Resources and Invasive, Non-Native Species sections).

Cumulative Effects: Future oil and gas development throughout the proposed lease sale parcels would disturb soils and vegetation beyond the past and present disturbances. Most vegetation loss would be for a relatively short timeframe because successful reclamation would return desirable vegetation and ecological function to disturbed sites. Where plant communities are dominated by invasive annuals or noxious weeds, successful reclamation of those disturbances would likely improve the condition of the plant community.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: Under the No Action Alternative there would be no impacts to vegetation beyond those associated with existing oil and gas leases.

Cumulative Effects: Cumulative effects would be similar to those analyzed in the Proposed Action. There would be no additional contribution to previous, existing, or future disturbances under this alternative.

Mitigation: Proposed mitigation measures, including reclamation practices, are developed upon environmental analysis of a site specific APD.

INVASIVE, NON-NATIVE SPECIES

Affected Environment: The state of Colorado has three designations for noxious weeds that occur in the state. List A species are designated for eradication, List B noxious weeds have, or will have, a state noxious weed management plan developed to stop their spread, and List C species are species which parties will develop and implement state noxious weed management plans designed to support the efforts of local governing bodies to facilitate more effective integrated weed management on private and public lands. The goal of such plans is not necessarily to stop the continued spread of these species but instead to provide additional education, research, and biological control resources to jurisdictions that choose to require management of List C species (Colorado Department of Agriculture 2011). Several Colorado listed noxious weed species occur within or near the proposed parcels and are listed below.

List B species that occur within or near the proposed lease sale parcels are hoary cress (*Cardaria draba*), perennial pepperweed (*Lepidium latifolium*), Russian-olive (*Elaeagnus angustifolia*), salt

cedar (*Tamarix ramosissima*), Canada thistle (*Cirsium arvense*), bull thistle (*Cirsium vulgare*), spotted knapweed (*Centaurea maculosa*), and Russian knapweed (*Acroptilon repens*). List C species that occur within or near the proposed lease sale parcels are cheatgrass (*Bromus tectorum*), and Halogeton (*Halogeton glomeratus*). Cheatgrass, an undesirable, non-native, invasive, is present in many plant communities throughout the proposed lease sale areas, and in some degraded areas is the dominant vegetation in the understory. Generally highly degraded areas dominated by cheatgrass are the result of historical livestock grazing practices and past oil and gas development that lacked reclamation.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: Implementation of the Proposed Action would result in additional disturbance throughout the future project areas creating opportunity for noxious weeds to spread. Cheatgrass and other weedy annuals are common along roadsides and other disturbed areas. These and the other species of noxious weeds are spread by vehicle traffic, livestock, and wind, water, recreational vehicles, and wildlife. There would also be potential for new weeds to be transported onto the site on equipment used for construction activities. Any disturbance of soil or removal of vegetation would create opportunity for weeds to establish or spread into the surrounding plant community. In disturbed areas, bare soils and the lack of competition from an established perennial plant community would allow weed species opportunity to grow and produce seed. However, successful reclamation using a seed mix adapted to the site in conjunction with integrated weed management would create an opportunity to improve vegetative communities and reduce the amount of weedy species in the project area.

The perennial and biennial noxious weeds in the area are less common in the project areas, but potential exists for their establishment and spread onto adjacent rangelands. At the APD stage, the operator would be required to control any invasive and/or noxious weeds that become established within the disturbed areas and surrounding area of influence and continue weed control actions throughout the life of the project.

Cumulative Effects: Future development within the proposed lease sale parcels would result in additional vegetation loss and surface disturbance. Past and present oil and gas activities in the area have already created disturbance, and oil and gas development is anticipated to continue throughout the area. Successful reclamation would reduce the risk to healthy plant communities and provide an opportunity to improve degraded vegetative communities within the project area.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: The No Action Alternative would result in no additional surface disturbance beyond what could occur in association with current oil and gas leases on federal land, resulting in no change from the current management situation.

Cumulative Effects: There would be no additional contribution to previous, existing, or future disturbances under this alternative.

Mitigation: Principles of integrated pest management, including herbicide application, shall be employed to control and minimize noxious and invasive weeds. Proposed mitigation

measures, including noxious and invasive weed control, would be developed upon environmental analysis of each site specific APD.

SPECIAL STATUS ANIMAL SPECIES

Affected Environment: The only listed species that has potential to be directly influenced by development of the proposed leases is the Colorado pikeminnow. While the species occurs in the White River below Taylor Draw Dam and Kenney Reservoir, the White River and its 100-year floodplain from Rio Blanco Lake to the Utah state line are designated critical habitat for the pikeminnow. The White River in Colorado does not appear to support spawning activity, young-of-year nurseries, or juvenile concentrations areas for the Colorado pikeminnow. Additionally, while the listed bonytail, humpback chub, and razorback sucker do not occur in the White River, water depletions in the White River adversely affect these species' downstream habitats in the Green River. Lease parcels 6177 and 6187 drain directly into the White River below Rio Blanco Lake via Crooked Wash and/or unnamed ephemeral channels. These parcels are separated from occupied habitat by a minimum of approximately 22 river miles.

Several BLM-sensitive animal species are known to inhabit or may be indirectly influenced from development of the proposed lease parcels, including the greater sage-grouse, northern goshawk, Brewer's sparrow, white-tailed prairie dog, Townsend's big-eared bat, big free-tailed bat, fringed myotis, Great Basin spadefoot, northern leopard frog, flannelmouth sucker, mountain sucker, roundtail chub, and bluehead sucker.

The roundtail chub and bluehead sucker are confined to the White River. Additionally, flannelmouth and mountain sucker inhabit the White River but also occur in small numbers at the confluence (and up to one mile upstream) of the White River and Crooked Wash (parcels 6177 and 6187). Similarly, the northern leopard frog is patchily distributed along the Crooked Wash channel for at least one mile upstream from the confluence and are likely associated with the White River's aquatic and riparian community. None of the proposed lease parcels are known to support populations of Colorado River cutthroat nor hold considerable potential (with regards to habitat conditions) for permanent occupation by this species.

Although the distribution of bats in the WRFO is incompletely understood, recent acoustic surveys in the Piceance Basin and along the lower White River have documented the localized presence of Townsend's big-eared and big free-tailed bats along larger perennial waterways. These bats typically use caves, mines, bridges, and unoccupied buildings for night, nursery, and hibernation roosts, but in western Colorado, single or small groups of bats use rock crevices and tree cavities. Although rock outcrops and mature conifers suitable as temporary daytime roosts for small numbers of bats are widely available in the project area, and relatively extensive riparian communities are available along the White River, Crooked Wash, and James Creek, there are no underground mines or known caves, and unoccupied buildings are extremely limited in the proposed areas of oil and gas development. Birthing and rearing of young for these bats occurs in May and June, and young are volant by the end of July. The big free-tailed bat is not known to breed in Colorado.

The WRFO has about six recent records of goshawk nesting in the Piceance Basin, the nearest being approximately 14 miles from the closest proposed lease parcel. Based on BLM's experience, goshawks nest at low densities throughout the Basin in mature pinyon-juniper woodlands above 6,500 ft and Douglas-fir and aspen stands. Goshawks establish breeding territories as early as March and begin nesting by the end of April. Nestlings are normally fledged and independent of the nest stand by mid-August. An influx of migrant goshawks appear to elevate densities in this Resource Area during the winter months.

Brewer's sparrows are common and widely distributed in virtually all big sagebrush, greasewood, saltbush, and mixed brush communities throughout the planning area. These birds are typically one of the most common members of these avian communities and breeding densities generally range between 10-40 pairs per 100 acres. Although most abundant in extensive stands of sagebrush, the birds appear regularly in small (one to two acre) sagebrush parks scattered among area woodlands and there is a strong possibility that they may be found nesting on every lease parcel. Typical of most migratory passerines in this area, nesting activities normally take place between mid-May and mid-July.

Northwest Colorado lies on the eastern margin of Great Basin spadefoot toad distribution. Spadefoots are known recently from western Rio Blanco County (west of Douglas Creek) and neighboring Uintah County, Utah and appear to be associated with ephemeral stock ponds in valley and basin terrain. There are scattered historical records of spadefoot from Powell Park (White River valley near Meeker, 1997) and a single record from Piceance Creek near Black Sulphur Creek (1973). Although seemingly rare and sporadically distributed in the WRFO, it remains possible that toads occupy shrublands and woodlands in close association with stockponds distributed throughout the project area that retain water over the minimum five week reproductive and larval development period.

The White River corridor is the hub for seasonal bald eagle use of the White River valley. Particularly during the late fall and winter months, several dozen bald eagles make regular foraging use of open upland communities along the river and its larger tributaries. These foraging forays from nocturnal roosts along the White River are dispersed and opportunistic. Concentrated diurnal use and nocturnal roosting functions during the winter, and summer use attributable to a number of nest sites situated in river corridor's cottonwood stands, occur in close proximity to lease parcels 6177 and 6187.

White-tailed prairie dogs and their burrow systems provide habitat for several species including burrowing owl, ferruginous hawk and the endangered black-footed ferret. Reproduction occurs in late February with young born in late April to early May with the juveniles emerging above ground around the beginning of June.

Ferruginous hawks are relatively rare in the WRFO Resource Area. Typically returning in late-February these birds begin nesting in earnest by mid-April with young generally fledged by late-July. Although historic nest sites are located adjacent to lease parcel 6177, aerial surveys conducted in 2009 and 2011 showed no evidence of recent nesting attempts in or around the project area.

Greater sage-grouse were once distributed widely throughout the WRFO, but have since contracted in range such that birds are strongly confined to higher elevations along the Roan Plateau and Cathedral Bluffs (comprising the bulk of the Parachute-Piceance-Roan (PPR) population area) and Blue Mountain (a subgroup of the Northwest Colorado (NWCO) population area). Remnant populations along the lower White River, including Dripping Rock, Boise Creek, Red Wash, Hall Draw, and Smizer Gulch may be locally extirpated.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: Cumulative water depletions from the Colorado River Basin are considered likely to jeopardize the continued existence of the Colorado pikeminnow, humpback chub, bonytail, and razorback sucker and result in the destruction or adverse modification of their critical habitat. In 2008, BLM prepared a Programmatic Biological Assessment (PBA) that addressed water depleting activities associated with BLM's fluid minerals program in the Colorado River Basin in Colorado, including water used for well drilling, hydrostatic testing of pipelines, and dust abatement on roads. In response, the U.S. Fish and Wildlife Service (FWS) prepared a Programmatic Biological Opinion (PBO) that addressed water depletions associated with fluid minerals development on BLM lands. The PBO included reasonable and prudent alternatives which allowed BLM to authorize oil and gas wells that result in water depletion while avoiding the likelihood of jeopardy to the endangered fishes and avoiding destruction or adverse modification of their critical habitat. The reasonable and prudent alternative authorized BLM to solicit a one-time contribution to the Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River Basin (Recovery Program) in an amount based on the average annual acre-feet depleted by fluid minerals activities on BLM lands. This contribution was ultimately provided to the Recovery Program through an oil and natural gas development trade association. Development associated with this lease sale would be covered by this agreement and water-use values associated with this project would be entered into the WRFO fluid minerals water depletion log that is submitted to the Colorado State Office at the end of each Fiscal Year.

Implementation of State and federally-imposed design measures to control erosion and spills would limit the risk of contaminants migrating off-site and degrading water quality in the White River.

Greater sage-grouse: A spate of recent research offers strong indications that traditional forms and application of sage-grouse protection measures, formerly endorsed by State and federal wildlife managers, are ineffective in maintaining local sage-grouse populations in the face of even modest levels of fluid mineral development (e.g., Holloran 2005, Doherty et al. 2008, Walker et al. 2007). These data suggest that reduced lek attendance, avoidance and displacement from areas of energy development, lower survival of nesting hens, and reduced nest success are attributable to oil and gas development at well densities that exceed one well per section. The proposed lease parcels encompass sage-grouse habitats of varying suitability and level of current occupation and each will be discussed separately based on its individual character.
The extreme northern and southern portions of lease parcel 6063 contain nearly 150 acres (115 acres in northern, 33 acres in southern) of mapped overall sage-grouse range. The southern 33 acres are bisected by a well-traveled road and are heavily encroached with pinyon and juniper. Of the northern 115 acres, only 55 acres appear to be minimally suitable for sage-grouse

occupation. The nearest lek, inactive since the late 1980's, is separated from this lease parcel by over 14 miles and there has been no evidence of consistence use by birds in the area.

Similarly, lease parcel 6167 and portions of parcels 6168, 6166, and 6153 are located in mapped overall sage-grouse range. However, these parcels are located in relatively rugged aspen and mountain shrub dominated communities which do not provide suitable nesting, brood-rearing, or winter habitat for sage-grouse.

Lease parcels 6172 and 6187 may support a small population of greater sage-grouse during the breeding season but more likely during the winter months. Due to the prospects of this area serving as emergency winter range during winters with extreme snow accumulations, it is recommended that these parcels be deferred from leasing. If deferred there would be no impacts associated with the Proposed Action.

Northern goshawk: Although there are no known goshawk nests within the proposed lease parcels, aspen communities in parcels 6168, 6186, 6053, 6057, 6058, and 6170 may provide suitable nesting habitat. The combination of expanded NSO and TL lease stipulations and complementary siting criteria that minimize or avoid adverse modification of nest habitat character have been effective in preventing reproductive failures and maintaining the integrity of the nest substrate or woodland stand for subsequent nest functions. Raptor nest surveys are required prior to project implementation in those areas potentially influenced by proposed development activities. Information on functional nest sites found in the course of surveys are used as the basis for developing siting alternatives or applying timing limitations that reduce the risk of nest activity disruptions that could result in reproductive failure or compromising the long-term utility of nest habitat.

Bald eagle: Parcel 6187 is the only lease parcel that has potential to influence bald eagle nesting activities. Bald eagle foraging use is dispersed and opportunistic across the entire WRFO area, but surface disturbing activities that have potential to disrupt important bald eagle seasonal use activities are subject to NSO and TL provisions established in the White River ROD/RMP. These stipulations have been successful in protecting ongoing nest efforts and maintaining the long term utility of roost and nest sites along the White River. Controlled Surface Use stipulations (WR-CSU-02 and 05) are applied to all Federal estate within the White River's 100-year floodplain and provide the means to develop site-specific measures that ensure that lease development remains compatible with the continued development and availability of riverine gallery forests for bald eagle roost, perch, and nest functions.

Brewer's sparrow: Inglefinger and Anderson (2004) documented 40-60 percent declines in Brewer's sparrow abundance within 100 meters of well access roads in Wyoming, and it is likely that this effect operates similarly in the WRFO. Indirect habitat loss attributable to this behavioral response adds substantially to the effects of habitat lost to long term facility occupation and shrubland modification that attends shrubland clearing (temporary workspace, reclaimed areas, pipeline installation). Considering that full field development may assume 5-10 percent of the land base, the collective impact of these avoidance responses on breeding populations would be dependent on facility siting criteria and the distribution of development activity through time. Efforts are made at the APD stage to locate facilities on habitat patch

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interfaces and avoid bisects of cohesive stands of sagebrush. Assuming these birds are capable of reoccupying these corridors to some degree once activity subsides to production and maintenance levels, prompt and effective reclamation, encouraging the use of BMPs that reduce vehicle traffic, restricting public use of well access roads, and promoting clustered development would help reduce the duration and extent of nest habitat disuse. Many leaseholders, in cooperation with the BLM and Colorado Parks and Wildlife (CPW), are actively pursuing and implementing these technologies. Although lease parcel development would contribute incrementally to reduced abundance of Brewer's sparrow in the WRFO, it is expected that losses at any given time during the life of a field would not compromise the viability of Brewer's sparrow populations nor alter the distribution of the species at any landscape level.

Bats: It is unlikely that the proposed lease parcels offer habitat suitable for hibernation or rearing of young for the three species of bat (big free-tailed bat not known to reproduce in Colorado). Perhaps widely distributed singly or in small groups during the summer months, roosting bats may be subject to localized disturbance from development activity and, considering siting criteria that avoids mature woodland involvement where possible, relatively minor but long term reductions in the areal extent of mature woodland stands as sources of roost substrate.

White-tailed prairie dog and associates: White-tailed prairie dog involvement with the proposed lease parcels is minor and is confined to parcels 6172 and approximately four acres in 6188. Site specific mitigation measures developed at the APD stage including daily and seasonal activity restrictions and facility siting criteria would minimize or avoid adverse impacts to prairie dogs, particularly during the reproductive period. The northeastern portion of parcel 6177 (Section 18) and approximately 12 acres in parcel 6188 (Sec. 8 NWNW) lie within the Wolf Creek Black-footed ferret Management Area. These small portions, located at a minimum 500 feet above the valley floor in wooded, rugged landscapes make up the extreme eastern edge of the Management Area. The nearest prairie dog colony is approximately over 900 ft (300 meters) away from the parcel boundary. These rugged woodland types do not provide suitable habitat for either species, and impacts to either species are not expected.

Great Basin spadefoot: BLM surveys documented this species approximately four miles from parcel 6063 and it is possible that they may occur within lease parcels 6063 and 6165 if appropriate habitat is present. The BLM will continue to survey for seasonal reproductive activity in suitable habitat throughout the WRFO. Due to this species more sedentary patterns of movement (average 500 meters), providing separation (generally up to 200 meters) between reproductive sites (waters or hibernaculum) and surface disturbance associated with development, reducing involvement of other forms of suitable habitat, and restricting vehicular access as COAs at the APD stage would help reduce the probability of adverse breeding and summer foraging habitat modification as well as toad mortality. There are no impacts associated with the Proposed Action. Impacts associated with the development of the lease parcels would be determined at the APD stage. With the application of COAs listed here, it is unlikely there would be any measurable impacts to this species.

BLM sensitive fish and northern leopard frog: Considering WRFO RMP-derived management emphasis on riparian and channel avoidance, sedimentation control, and channel reclamation (see Riparian section), it is unlikely that lease development would have any substantive

consequence on the condition or function of channel features associated with aquatic habitats occupied by special status fish and amphibians. Implementation of State and federally imposed design measures to control erosion and spills would limit the risk of contaminants migrating off-site and degrading water quality in the White River and its contributing tributaries. However, it is likely that populations of fish and amphibians in this system would also be subject to depletion-related effects, to which the development of proposed lease parcels would incrementally contribute.

Cumulative Effects: See discussion above regarding cumulative impacts to endangered Colorado River fish regarding cumulative water depletions.

Although the lease sale itself would not contribute cumulatively, the potential for future disturbance may influence special status animal species, depending on location and intensity of disturbance/development. Impacts to special status species would be more accurately analyzed on site-specific basis (APD-level environmental analysis) where appropriate mitigation and possible consultation with FWS would be addressed or required.

In general, development of these lease parcels would involve, to varying degrees, habitat loss, avoidance of habitat, and species-specific behavioral influences. Currently, there is very little energy-related development in the northernmost lease parcels (6120, 6168, 6170, 6057, 6058, 6167, 6166, 6053, 6153, 6169, 6173 and 6176). Development within these parcels, should it occur, it is not expected to contribute substantially to existing disturbances in the area, nor is it expected to have any measureable influence on specials status species or important habitats. Energy-related development is common but dispersed in and around parcels 6172, 6177 and 6187, with more intensive, concentrated development occurring south of these parcels (approximately four miles). The most intensive development historically has occurred in and around parcels 6063 and 6165 (western edge of the Resource Area), however recently the focus of active development has shifted roughly 30 miles east of here (Piceance Basin). It is suspected that cumulative effects would be more evident or pronounced in the those parcels where past or current development levels are greater, however they would not be expected to elevate to levels that would compromise the viability of any special status species or the utility of broader landscapes as habitat for those species.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: There would be no impacts to special status animal species or their habitats from the No Action Alternative.

Cumulative Effects: There would be no additional contribution to previous, existing, or future disturbances to special status animal species under the No Action alternative.

Mitigation: Mitigation that is used to reduce the duration or severity of impacts to special status species is presented integral with the discussions above. Potential mitigation applied to subsequent lease development includes WRFO RMP-derived No Surface Occupancy (WR-NSO-02 and 05), Controlled Surface Use (WR-CSU-02 and 05) Lease Notice (WR-LN-01) and Timing Limitation (WR-TL-01, 02, 03, 05, 06 and10) stipulations (see Attachment C). All parcels are also subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened,

endangered, candidate, or other special status plant or animal. Due to the prospects of areas within parcels 6172 and 6187 serving as emergency greater sage-grouse winter range during winters with extreme snow accumulations, it is recommended that these parcels be deferred from leasing.

SPECIAL STATUS PLANT SPECIES

Affected Environment: The majority of the parcels do not contain any currently known special status plant species populations. All parcels may potentially contain special status plant species in the future since many of the parcels have not been previously surveyed for special status plant species or their associated habitat. However, the following four parcels have a higher possibility of containing special status plants or habitat due to proximity to known populations. Parcel 6187 falls within an area for the BLM sensitive species narrowstem gilia (*Aliciella stenothyrsa*). Although the closest known population is over 3.5 miles away the parcel may contain potential habitat for this species. Parcel 6187 also contains a small portion of the White River Riparian ACEC which could potentially contain the threatened riparian species Ute Ladies'-tresses (*Spiranthes diluvialis*). Parcel 6177 is of approximate equal distance to the narrowstem gilia and development in this parcel will also require special status plant species surveys. Parcel 6165 and 6063 are in the western portion of the resource area that has been largely unsurveyed to date but the area has the potential for containing special status plant species (Table 9) and their habitat.

Table 9 WRFO Special Status Plant Species

Common Name	Scientific Name	Status
Dudley Bluffs bladderpod	*Physaria congesta*	Threatened
Dudley Bluffs twinpod	*Physaria obcordata*	Threatened
Ute Ladies'-tresses	*Spiranthes diluvialis*	Threatened
White River beardtongue	*Penstemon scariosus var. albifluvis*	Candidate
Narrow-stem gilia	*Aliciella stenothrysa*	BLM Sensitive
Duchesne milkvetch	*Astragalus duchesnensis*	BLM Sensitive
Debris milkvetch	*Astragalus detritalis*	BLM Sensitive
Tufted cryptanth	*Cryptantha caespitosa*	BLM Sensitive
Rollins' cryptanth	*Cryptantha rollinsii*	BLM Sensitive
Ephedra buckwheat	*Eriogonum ephedroides*	BLM Sensitive
Cathedral Bluffs dwarf gentian	*Gentianella tortuosa*	BLM Sensitive
Piceance bladderpod	*Lesquerella parviflora*	BLM Sensitive
Flaming Gorge evening primrose	*Oenothera acutissima*	BLM Sensitive
Colorado feverfew	*Parthenium ligulatum*	BLM Sensitive
Graham's beardtongue	*Penstemon grahamii*	BLM Sensitive
Cathedral Bluff meadow rue	*Thalictrum heliophilum*	BLM Sensitive

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: Surface disturbance operations in leased areas can negatively impact special status plant habitat by generating fugitive dust, removing and/or disturbing pollinator habitat, and contributing to the spread of noxious weeds. However, it is not the BLM's intention to permit surface disturbance in any areas of potential or occupied habitat for either federally listed plants (WR-NSO-8) or BLM special status plants (WR-NSO-9). If development is proposed in areas where surveys locate new populations of special status plant species, a

thorough environmental analysis will be completed prior to any surface disturbing activities to determine potential impacts associated with the project. If threatened plant species are found within the species' life history buffer of the project area a biological assessment will be submitted to the U.S. Fish and Wildlife Service. If BLM sensitive species are found near the project area impacts will be mitigated by either relocating the action or by applying conditions of approval.

Cumulative Effects: While nearby development can be avoided through NSO stipulations and reduce direct or indirect effects, the increase in disturbance could increase the spread and abundance of noxious weeds which is a cumulative impact on special status plant species. Additionally, landscape fragmentation could cumulatively impact pollinator habitat and the persistence of special status plant species if the fragmentation affects their ability to expand their range.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: The No Action Alternative would have no conceivable influence on special status plant species or their associated habitats.

Cumulative Effects: The No Action Alternative would have no conceivable cumulative effect on special status plant species or their associated habitats.

Mitigation: All parcels are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal. Additional site-specific mitigation measures will be implemented at the APD stage and may include measures such as: 1) lease development in the vicinity of special status plant habitat will require a botanical inventory that meets the standards of the WRFO plant survey protocol; 2) the timing required for conducting surveys may require deferring activities for longer than 60 days; 3) surface disturbance will not be allowed within mapped locations of special status plant species plants.

MIGRATORY BIRDS

Affected Environment: BLM Instruction Memorandum No. 2008-050 provides guidance towards meeting BLM's responsibilities under the Migratory Bird Treaty Act (MBTA) and Executive Order (EO) 13186. The guidance emphasizes management of habitat for species of conservation concern by avoiding or minimizing negative impacts and restoring and enhancing habitat quality.

The proposed lease parcels encompass a wide variety of habitats, including lower to mid elevation pinyon-juniper woodland and shrublands composed variously of big sagebrush and deciduous shrubs such as Utah serviceberry (parcels 6156, 6063, 6177, 6187, 6188, 6172 and 5967); upper elevation mountain shrub (Utah serviceberry, mountain mahogany etc.) and Gambel oak (parcels 6173 and 6176); and upper elevation mountain shrub with scattered inclusions of aspen (parcels 6168, 6210, 6168, 6057, 6058, 6053, 6169, 6153, 6170). Riparian communities are present in several of the parcels (see Wetland and Riparian Zones section). These habitats support a large array of migratory birds during the breeding season (generally May through July).

The BLM lends increased management attention to migratory birds listed by the U.S. Fish and Wildlife Service (FWS) as Birds of Conservation Concern (BCC). These are bird populations that monitoring suggests are undergoing range-wide declining trends and are considered at risk for becoming candidates for listing under the Endangered Species Act if not given due consideration in land use decisions. Those species associated with the Southern Rockies/Colorado Plateau region (FWS 2008a) and the proposed lease parcels are presented by habitat affiliation below.

Pinyon-juniper woodland associates within the WRFO include four species that are considered BCC: the gray vireo, juniper titmouse, Cassin's finch, and pinyon jay. The titmouse and finch occur widely in virtually all available woodlands, but occur at relatively low densities. Pinyon jays are loosely colonial nesters and are patchily distributed throughout the WRFO's woodlands. This species is reportedly an aggressive and persistent re-nester. Gray vireos are associated with juniper-dominated habitats below 6,000 ft. The current lease offerings are generally outside the normal distribution of this species, however it is extremely likely that they may occur in and around parcel 6063.

BCC associated with sagebrush shrubland habitats is limited to the BLM-sensitive Brewer's sparrow, which is addressed in the Special Status Animal Species section. Conifer and aspen inclusions support nesting Cassin's finch in greater abundance than in lower elevation woodlands and, particularly in higher elevation aspen, likely support localized breeding pairs of flammulated owl.

More generally, birds associated with these lease parcels are well distributed in extensive suitable habitats throughout the WRFO and northwest Colorado and habitat-specific bird assemblages appear to be composed and distributed appropriately to the normal range of habitat variability.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: The actual lease sale would not impact any migratory bird species or their habitat, however, potential future development of the proposed leased parcels would influence both localized populations and their associated habitats. The potential effects of lease development on migratory birds are adequately represented by the discussion for Brewer's sparrow in the Special Status Animal Species section.

Cumulative Effects: Cumulative effects would be similar to those discussed in Special Status Animal Species section.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: There would be no impacts to migratory bird species or their habitat(s) from the No Action Alternative.

Cumulative Effects: There would be no additional contribution to previous, existing, or future disturbances to migratory birds or their habitat(s) under the No Action alternative.

Mitigation: In general, mitigation measures would be developed through an environmental analysis of a site specific application for permit to drill. Mitigation that is effective in reducing the duration or severity of impacts to migratory birds is presented integral with the discussion for Brewer's Sparrow in the Special Status Animal Species section. Further, it is standard procedure to include a COA on all APDs that alerts the operator to their responsibility under the Migratory Bird Treaty Act to effectively preclude migratory bird access to, or contact with, reserve pit contents that possess toxic properties (i.e., through ingestion or exposure) or have potential to compromise the water-repellent properties of birds' plumage.

AQUATIC WILDLIFE

Affected Environment: Two of the proposed lease parcels (6177 and 6187) encompass Crooked Wash, whose lower reaches (~one mile above White River confluence) support small populations of nonnative fathead minnow and native species such as speckled dace and flannelmouth sucker (BLM-sensitive). Northern leopard frogs, also a BLM-sensitive species, have been documented in parcel 6187 and likely occur in 6177. Parcel 6187 also encompasses approximately 0.15 mi of the White River. This system supports several native and nonnative fish species including roundtail chub, flannelmouth sucker, and bluehead sucker (all BLM-sensitive species). These species are discussed in the Special Status Animal Species section above. The remaining systems (Table 7), although perennial and/or intermittent, are relatively small and likely do not support fish populations.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: See discussions in the Special Status Animal Species and Wetland and Riparian Zones sections. RMP-derived management emphasis on riparian and channel avoidance, sedimentation control, and channel reclamation provide a sufficient range of measures and objectives that, applied to lease development, effectively avoids substantive consequence on the condition or function of channel features associated with aquatic habitats. Implementation of State and federally-imposed design measures to control erosion and spills also work to limit the risk of contaminants migrating off-site and degrading water quality in these systems. There are no impacts associated with the leasing these parcels. Impacts associated with the development of the lease parcels would be determined and analyzed through an environmental assessment at the APD stage. With the application of COAs and BMPs, impacts to aquatic habitats can be reduced or avoided.

Cumulative Effects: Cumulative effects would be similar to those discussed in the Special Status Animal (specific to endangered river fish) and Wetland and Riparian Zones sections.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: There would be no actions authorized that would directly or indirectly influence aquatic habitats.

Cumulative Effects: There would be no additional contribution to previous, existing, or future disturbances to aquatic resources under this alternative.

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Mitigation: Mitigation intended to protect aquatic habitat is discussed integral with the Environmental Consequences of the Proposed Action. See also discussions in the Special Status Animal and Wetland and Riparian Zones sections.

TERRESTRIAL WILDLIFE

Affected Environment: The area encompassing the proposed lease parcels includes nearly all of the big game (deer, elk) seasonal ranges. Lease parcel 6165, 6063, 6177, and 6187 are situated in lower elevation sagebrush shrublands and pinyon-juniper woodlands which encompass big game severe winter ranges (mule deer). Parcels 6188, 6172, and 5967 are located in big game general winter range (both deer and elk). These ranges fulfill their most important function during the later winter and early spring months prior to widespread plant emergence. By definition, these ranges harbor the majority of the area's big game populations under the most severe winter weather conditions when big game energetic demands are highest and access to nutritional forage lowest. The higher elevation mountain shrub and aspen communities, which encompass the remaining parcels along the northern border of the Resource Area, represent important big game summer ranges and elk production areas.

With the exception of parcels 6165, 6176, 6172, and 6153, all lease parcels either contain or lie adjacent to a known/documented raptor nest site. Lease stipulations, including 200-meter radius NSO stipulations (WR-NSO-03) that help maintain suitable nest site character and 400-meter radius timing limitations (WR-TL-04) that reduce inappropriate disruption of adult attendance during the nesting sequence are imposed on functional nest sites.

Small mammals that are likely to inhabit the lease parcels display broad ecological tolerance and are widely distributed throughout the region in suitable habitats. No narrowly-distributed or highly-specialized species or sub-specific populations are known to inhabit the WRFO.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: Traditional timing limitations continue to be applied to these important summer and winter (i.e., severe winter and critical winter) ranges by the State and BLM, although these measures were not designed or intended to deal effectively with new drilling and completion technologies (e.g., deep directional, multi-well pads) and the disposal of large quantities of produced fluids. Sawyer (2006) demonstrated strong avoidance response of natural gas development activity in Wyoming deer and the pronounced influence of residual activity associated with maintenance/production phases and subsequent recreational use of well access roads. Later, Sawyer (2009) acknowledged that avoidance response in deer could be substantially reduced (40-60 percent) in these fields by employing technologies that reduce the truck transport of produced fluids (i.e., fluid transport via pipeline). These studies provide compelling evidence that behavioral impacts (habitat disuse from avoidance, elevated energetic demands) associated with human and vehicular activity attributable to oil and gas development are the primary impact imposed on big game and are, in these circumstances, more expansive and deleterious than direct habitat loss associated with longer term infrastructure occupation and shorter term vegetation modifications. Industry is actively planning or implementing fluids gathering systems that would drastically reduce the frequency of vehicle activity on affected big game ranges. Complementary actions that are being employed to further reduce direct or indirect

impacts include pooled employee transport, on-site employee housing, adjusting lease requirements or offering year-round development incentives to promote clustered development, increasing the number of wells sequentially drilled at each location, and phased reclamation instituted soon after the pad is constructed. Site-specific conditions and opportunities are also reflected in COAs developed at the APD stage, including restricting public access on well access roads and pipeline rights-of-way and siting facilities and infrastructure in a manner that balances the interspersion of cover and forage compatible with the behavioral traits of deer and elk. Although all proposed lease parcels may not be developed in this manner, more advanced objectives and principles are likely to be universally promoted and applied where practical. With continued cooperation from industry and the State, and assuming the BLM will adapt lease and unit obligations to encourage clustered development patterns (reduced exposure to disturbance, increased efficiency of wildlife-oriented reclamation), the BLM believes serious impacts to big game abundance and distribution can be largely averted.

Oil and gas development's interference with and/or interruption of big game seasonal range movements has surfaced as a serious issue in some Wyoming natural gas fields. Because drilling operations at present tend to be clustered, increasingly sedentary (i.e., a rig may be at one location for up to two years while drilling multiple wells on pad versus a few months or less for a single well) and quiet, with a declining trend in well visitation and landscape footprint, BLM and CPW biologists do not feel at this time that big game migration movements have potential to be impaired sufficiently to adopt timing limitations as a remedy.

Portions of lease parcels 6053, 6166, 6058, 6057, and 6170 are located within the Jensen State Wildlife Area (SWA). Higher elevation aspen communities in close proximity to perennial streams (namely James Creek) provide import fawning and calving habitat for elk. Additionally the isolated (largely surrounded by privately-owned land) scrub oak and mountain mahogany communities provide important winter habitat for big game. This SWA is closed to the public from December 1 – July 14. Due to these important wildlife values, those parcels or portions of parcels which lie in the Jensen SWA have been recommended for deferral from leasing (see Attachment B). Deferring parcels would eliminate any impacts to wildlife species or important habitats.

The combination of NSO and TL lease stipulations and complementing siting criteria that attempts to minimize or avoid adverse modification of raptor nest habitat character have been effective in preventing reproductive failures and maintaining the integrity of the nest substrate or woodland stand for subsequent nest attempts. Raptor nest surveys are required prior to project implementation in those areas potentially influenced by proposed development activities. Information on functional nest sites found in the course of survey are used as the basis for developing siting alternatives or applying timing limitations that reduce the risk of nest activity disruptions that could result in reproductive failure or compromising the long-term utility of nest habitat. The most prevalent habitat-related risk attending fluid minerals development in the WRFO is the clearing of pinyon-juniper woodlands which alters stand conformation for centuries. Recent BLM monitoring efforts indicate that woodland nesting species, primarily Cooper's hawk and long-eared owl, continue to nest in more heavily developed fields at densities generally comparable to those found in sparsely developed areas. A limited amount of data suggest that brood size may be reduced under circumstances of concentrated development

activity, but it would seem unlikely that these effects would persist at levels that would impair the long term viability of local populations.

Lease development's influence on small mammal populations, at least in the short term, is likely primarily confined to on-site mortality and direct habitat loss attributable to facility occupation and vegetation clearing. Due to the relatively small areal extent of actual surface occupation and the large intervening matrix of undisturbed lands, it is unlikely that present infrastructure extent or patterns are eliciting widespread species-area effects or (for most species) imposing barriers (e.g., roads) that preclude occasional genetic interchange. WRFO's practice of redistributing large woody debris on reclaimed pipeline corridors is, among other purposes, intended to provide cover for more secure small mammal movements and moderate the width and contrast in foreign substrate that must be crossed. These assumptions are tempered by the possibility that certain species may rarely, if ever, cross barren roadbeds. The expanse of continuous habitat usually available on either side of a ridge (typical pattern of development) and its present ability to support robust populations of small mammals would likely mask declining population fitness for long periods of time.

Cumulative Effects: Cumulative effects would be similar to those discussed in Special Status Animal Species section.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: There would be no impacts to wildlife species or their habitats from the No Action Alternative.

Cumulative Effects: There would be no additional contribution to previous, existing, or future disturbances to terrestrial wildlife or important habitats under the No Action Alternative.

Mitigation: Mitigation that is used to reduce the duration or severity of impacts to big game and raptors are presented integral with the discussions above. Potential mitigation applied to subsequent lease development includes WRFO RMP-derived No Surface Occupancy (WR-NSO-03), and Timing Limitation (WR-TL-04, 07, 08 and 09) stipulations (see Attachment C). Also, included on parcel 6173 is the LSFO RMP's wintering big game timing limitation. Portions of lease parcels 6053, 6166, 6058, 6057, and 6170 that lie in the Jensen SWA have been recommended for deferral from leasing (see Attachment B) due to important wildlife values.

WILD HORSES

Affected Environment: Two of the nominated parcels occur within the West Douglas Herd Area (WDHA); most of parcel 6063 at approximately 2,562 acres and all of parcel 6165 at 2,404 acres. These two parcels lay north and west of Rio Blanco County Road #23 also known as the Dragon Trail Road within the WDHA in an area known as Cottonwood Creek. This area is home to a few wild horses during the winter months and is not usually an area where wild horses are found regularly. Generally, the wild horses are found near Texas Mountain to the south and east.

Under the 1997 White River ROD/RMP, this area would be managed in the short term (0-10 years) to provide forage for a herd of 0 to 50 horses. The long term objective (+10 years) will be

to remove all wild horses from this area. The proposal to remove all wild horses from this area is currently in litigation.

Environmental Consequences of the Proposed Action

Direct and Indirect Effects: The actual amount of direct and indirect effects to wild horses in either of the proposed leases cannot be predicted until the site-specific APD stage of development. General direct effects on wild horses would be forage loss associated with vegetation removal and short term avoidance by wild horses in those areas where construction, equipment use, and human presence would disturb wild horses in those site-specific areas. The amount of forage loss would vary based on the productivity of the affected range site prior to disturbance, the distance of that site from water sources, and the topography of the site. Generally, wild horses prefer areas within a couple of miles from water sources and cover such as small pockets of pinyon/juniper trees, and also areas with gentle topography so if development were to occur in these types of areas the forage or cover loss may result in an increased impact to the wild horses. As reclamation of disturbed sites begins to establish, the BLM would expect the replacement of any lost forage and that wild horses would use those sites again.

The BLM expects some wild horses to avoid specific areas during construction due to vehicle traffic, dust, noise, and human presence until the horses acclimate to development activities.

Cumulative Effects*:* Overall, leasing the parcels may result in continued energy development activities similar to what has occurred throughout the area over the last 30 plus years. Where development occurs there would be temporary, short-term forage losses. There would likely be no significant direct or indirect cumulative impact on wild horse use of these areas. However, cumulative impacts from past, present, and possible future energy development activities could have a long-term effect on the native range's carrying capacity if wild horses remain in the WDHA.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: There would be no additional energy leases in the WDHA and there would be no additional potential for loss of forage associated with energy development.

Cumulative Effects: Cumulative effects are the same as those analyzed in the Proposed Action.

Mitigation: In general, it may be necessary to develop site specific mitigation measures through an environmental analysis of the APD.

CULTURAL RESOURCES

Affected Environment: Nineteen parcels have been proposed for the May 2012 Oil and Gas Lease Sale, which for analysis purposes can be clumped into three groups; the north group, the Thornburgh group, and the south group. The north group, parcels 5967, 6172, 6173, 6176, 6177, 6187, and 6188 occur along the northern boundary of the WRFO resource area, in a region generally thought to have a low to moderate potential for important cultural resources. The

Thornburgh group, parcels 6053, 6057, 6058, 6153, 6166, 6167, 6168, 6169, 6170, and 6210, are also along the northern boundary of the field office, however they are clustered around the Thornburgh Battlefield/ Battle of Milk Creek site area. The south group, parcels 6063 and 6165, occurs near the Dragon Trail in the southwest portion of the field office area in a region thought to have moderate to high potential for important cultural resources. During Section 106 review, a Class I literature search and assessment were completed for each parcel group by White River Field Office (WRFO) Archaeologist Kristin Bowen in October 2011. The search was done with, at that time, current information on file with the Colorado State Historic Preservation Office (SHPO), and the results of the assessment are summarized below.

The north group of parcels (including 5967, 6172, 6173, 6176, 6177, 6187, and 6188) occurs in 6th P.M. T 2N R 96W, T 3N R 95W, T 3N R 97W, T 3N R 98W, and T 4N R 95W. In total, the parcels encompass about 10,293 acres of BLM lands and no private or state lands. According to available data, the sections containing these parcels contain about 570 acres of previously inventoried lands, all of which may not have been done to current standards. Three prehistoric open lithic sites, five prehistoric open camps, one prehistoric rock art site, and one historic brush fence site have been previously recorded in the sections as well as five prehistoric isolated finds. One site is recorded as Not Eligible, four are Eligible, one is Needs Data, and four have no assessment given on the form and therefore would have to be treated as potentially Eligible for National Register of Historic Places (NRHP) listing. Based on these figures, the estimated density of potentially Eligible sites (No assessment given, Needs Data, and Eligible) for this group of parcels is approximately 1 in 63 acres.

The Thornburgh group (including parcels 6053, 6057, 6058, 6153, 6166, 6167, 6168, 6169, 6170, and 6210) occurs in 6th P.M. T 2N R 92W, T 2N R 93W, T 3N R 92W, and T 3N R 93W. In total, the parcels encompass approximately 3,000 acres of BLM lands, 9,350 acres private, and 2,550 acres of state lands. According to available data, the sections containing these parcels contain about 1,119 acres of inventoried lands (not all done to current standards). One Fremont rock art/sheltered architectural site, one unspecified rock art site, one prehistoric open camp site, one historic battlefield, four historic mine sites, one historic telegraph/telephone line, four historic architecture sites, two historic roads, in addition to four prehistoric isolated finds, four historic isolated finds, and one late prehistoric Ute isolated find. The historic battlefield in the lease sections, but is actually just outside of any of the proposed lease parcels, is the Thornburgh Battlefield/ Battle of Milk Creek site of 1879, which is discussed more in the Native American Religious Concerns section below. Overall, one site is Listed on the National Register (Thornburgh Battlefield), six are recorded as Not Eligible, one is Eligible, one is Needs Data, and six have no assessment given on the form and therefore would have to be treated as potentially Eligible for NRHP listing. Based on these figures, the estimated density of potentially Eligible sites (No assessment given, Needs Data, Eligible, and Listed) for this group of parcels is approximately 1 in 124 acres.

The south group of parcels (parcels 6063 and 6165) occurs in 6th P.M. T 1 S, R 103 W. In total, the parcels encompass about 4,960 acres of BLM lands and no private or state lands. According to available data, the sections containing these parcels contain about 862 acres of inventoried lands (not all done to current standards). Five prehistoric open lithic sites, two prehistoric sheltered camps, two prehistoric rock art sites, one drill hole/open architectural/multiple burials

site (Sky Aerie), one Ute wickiup site, six historic shepherds camps, and one historic rock art site have been previously recorded in the sections as well as seven prehistoric isolated finds. Nine of the sites are Not Eligible, five are Eligible, two are Needs Data, and three have no assessment given on the form and therefore would have to be treated as potentially Eligible for NRHP listing. Based on these figures, the estimated density of potentially Eligible sites (No assessment given, Needs Data, and Eligible) for this group of parcels is approximately 1 in 86 acres.

Cultural resources in the WRFO range from the Paleoindian Era (from circa 13,000 BC) to the historic period (to AD 1960). These include several types of prehistoric and protohistoric Native American site types as well as historic Euroamerican habitations and roads. Of particular note in this area is Native American rock art, Fremont masonry architectural and drill hole sites, and Ute wickiup sites, as they are significant sites that can be particularly vulnerable to destruction related to development.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: The BLM is required by law and regulation to ensure that Bureau-initiated or Bureau-authorized actions do not inadvertently harm or destroy cultural resource values. Because most cultural resources are unidentified, irreplaceable, and highly sensitive to ground disturbance, it is necessary that the resources are properly identified, evaluated, and reported prior to any future activity that may affect their integrity or condition. Before any APDs are approved for exploration or drilling, a Class III cultural resource survey would be undertaken to comply with Section 106 of the National Historic Preservation Act. The WRFO requires a minimum 40-acre inventory block around all proposed well pad locations, per its current standards and practices. This buffer typically allows for the relocation of proposed well pads more than 100m away from newly discovered sites potentially Eligible for NRHP listing. With an estimated potentially Eligible site density of about 1 in 63 acres for the northern group of lease parcels, about 1 in 124 acres for the Thornburgh group, and about 1 in 86 acres for the southern group, proposed construction or operation activities associated with development of these lease parcels should be able to be relocated to avoid potentially Eligible sites by at least 100 meters, and any related undertaking's Area of Potential Effect (APE) could be situated to avoid such sites. However this distance does not fully cover the APE of visual and auditory affects which may come into play and cause additional mitigations or avoidance areas around sites such as Sky Aerie and Thornburgh Battlefield, which may be determined in consultation with Native American tribes.

Cumulative Effects: As leasing itself does not involve ground disturbance cumulative effects of this action cannot be identified at this time, impacts will have to be analyzed for any future project proposals on these leases.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: There would be no impacts from the No Action Alternative.

Cumulative Effects: There would be no cumulative effect caused by the No Action Alternative.

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Mitigation: If cultural resources are discovered during required Class III cultural resource inventories or during later construction or other operations, WRFO archaeologists will consider the proposed undertaking's potential to affect the site type(s) present and the NRHP eligibility determinations of each site potentially affected to formulate mitigations. Where resource conflicts are discovered, mitigation will likely include the relocation of the proposed well pad(s) or infrastructure to avoid potentially Eligible sites by more than 100 meters, or relocation such that the undertaking's APE does not affect potentially Eligible sites. Mitigation will be developed during the NEPA review of individual ground disturbing activities and with consultation with the SHPO and with Native American tribes.

All lands are subject to Exhibit CO-39 to protect cultural resources.

PALEONTOLOGY

Affected Environment: The BLM has implemented a Potential Fossil Yield Classification (PFYC) system for classifying paleontological resources on public lands. Under the PFYC system, geologic units are classified from Class 1 to Class 5 based on the relative abundance of vertebrate fossils or uncommon invertebrate or plant fossils and their sensitivity to adverse impacts. A higher classification number indicates a higher fossil yield potential and greater sensitivity to adverse impacts. The project area contains portions of geological formations known to produce few to several scientifically valuable fossils, resulting in PFYCs between 2 and 5. The formations affected, their PFYC values, and their known fossil types within the WRFO, are as follows (Tweto 1979, Armstrong and Wolny 1989, BLM Colorado State Office PFYC chart):

Williams Fork Formation—PFYC 5- Known to contain mammals (multituberculates, eutherians, and marsupials), dinosaurs, reptiles (turtles, crocodilians- including champosaurs), and possibly marine reptiles, fish (sharks, Amiidae, and Lepisosteidae), invertebrates (mollusks, gastropoda, and pelecypoda) and plants (including Auracaria and other conifers, Debya and Ficus leaf impressions, palms, wood, and possible flower or fruit capsules).

Iles Formation—PFYC 5- Contains poorly preserved osteological remains, gar scales, invertebrates (pelecypods, baculites, and clams (Inoceramus), ammonites, oysters (Ostrea), and freshwater gastropods), wood and plant impressions, and bryozoans.

Mancos Shale—PFYC 3- In and near the Piceance Basin, this formation produces fish (fish scales, bones, and sharks' teeth), invertebrates (ammonites, baculites, scaphites, bryozoans, brachiopoda, clams, oysters, belemnites), ichnological traces (crayfish burrows), pollen, and plant fragments. Elsewhere, Mancos shale is known to produce marine reptiles (mosasaurs and plesiosaurs) and duckbill dinosaurs (hadrosaurids).

Mesaverde Group or Formation, Upper part—PFYC 5- This formation may contain dinosaurs, reptiles (turtles & crocodilians), mammals, fish, ichnological traces, snails, plants, and coal beds.

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Frontier Sandstone and Mowry Shale—PFYC 4- These strata have the potential to produce larger vertebrates, though typically contain fish, marine invertebrates (including Inoceramus clams, baculites, scaphites, forams, and radiolaria), freshwater invertebrates, various florae, and microfossils. Portions are likely to produce dinosaur bones, eggs, and ichnofossils, as well as Cretaceous mammals.

Sego Sandstone, Buck Tongue of Mancos Shale, and Castlegate Sandstone—PFYC 3- These strata typically contain marine ichnological traces (other than Ophiomorpha) and possibly other marine fossils.

Green River Formation, Lower part—PFYC 4- This formation contains fish and ostracoda.

Wasatch Formation—PFYC 5- Contains Paleocene and Eocene mammals (including perissodactyls, tapiroids, condylarths, primates, insectivores, marsupials, creodonts, carnivores, and multituberculates), reptiles (including crocodilians, turtles, and lizards), birds (including eggs), amphibians, fish, invertebrates (non-marine mollusks and ostracoda), and various florae.

Undifferentiated Green River Formation, Lower Part and Wasatch Formation—PFYC 5- These strata typically contain Paleocene and Eocene mammals (including perissodactyls, tapiroids, condylarths, primates, insectivores, marsupials, creodonts, carnivores, and multituberculates), reptiles (including crocodilians, turtles, and lizards), birds (including eggs), amphibians, fish, invertebrates (non-marine mollusks and ostracoda), and various florae.

Fort Union Sandstone—PFYC 3- Typically contains Paleocene mammals, reptiles, amphibians, fish, invertebrates (including pelecypoda and gastropoda), and florae (including pollen). Also contains dinosaur bones presumably redeposited from the erosion of earlier sediments or formations.

Modern Alluvium—PFYC 2- May contain Holocene animals, including bison and horses.

Quaternary Landslide Deposits—PFYC 3a- Contains Pleistocene to Holocene bison, cattle, cervids, and rodents.

Chinle and State Bridge Formations—PFYC 5- These formations have produced fossil brachiopoda and vertebrate or invertebrate ichnofossils.

Morrison, Curtis, Entrada, and Glen Canyon Formations—PFYC 4/5- Navajo Sandstone within portions of the Glen Canyon Group has produced Jurassic vertebrate and invertebrate ichnofossils in dune deposits, the Curtis Formation has produced belemnites and microfossils, and the Morrison Formation is renowned for its Jurassic mammals, birds, dinosaurs, reptiles, amphibians, fish, invertebrates (including snails and freshwater clams), and plants (including pines, low ferns, cycads, and gingkos).

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: Each May 2012 lease sale parcel predominately contains areas mapped as PFYC 4 to PFYC 5 formations and has a moderate to high potential to impact scientifically valuable fossil resources. Locations for proposed oil or gas well pads, pipelines, and associated infrastructure will be subject to further analysis for the protection of paleontological resources. Areas of new surface disturbance occurring on or adjacent to bedrock (native sedimentary stone) exposures must be inventoried by a permitted paleontologist and approved by the appropriate WRFO specialist during each project's NEPA review. Surface disturbing activities in many areas will require monitoring by a permitted paleontologist.

Cumulative Effects: This lease sale, when combined with the past, present and reasonably foreseeable actions has the potential to identify previously unrecorded paleontological resources by increasing the surface and subsurface area documented by pre-construction paleontological surveys and construction monitoring. Sites that could not be avoided may require excavation and collection, which would add to existing regional paleontological knowledge.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: There would be no impacts from the No Action Alternative.

Cumulative Effects: There would be no cumulative effect caused by the No Action Alternative.

Mitigation: Mitigation will be developed during the NEPA review of individual ground disturbing activities. Typically, mitigation includes provisions for the monitoring of ground disturbance by a permitted paleontologist, a requirement for the operator to inform all persons associated with the project of relevant Federal laws protecting fossil resources, and requirements regarding the disclosure of inadvertent fossil discoveries during construction or operation to the WRFO while operating on federally-managed surface. Other notification and reporting requirements may exist for split-estate parcels with privately-owned surface.

As all parcels analyzed predominately contain PFYC 4 to PFYC 5 lands, all lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values. Portions of parcel 6173 wholly within the LSFO will be subject to CO-29.

NATIVE AMERICAN RELIGIOUS CONCERNS

Affected Environment: No Native American Religious Concerns or Traditional Cultural Properties (TCPs) are known, by the WRFO, in the area of the north group of parcels.

The Thornburgh group of parcels are located surrounding the Thornburgh Battlefield/ Battle of Milk Creek site. None of the parcels themselves overlap the boundary of the site as it is listed on the National Register, but several are next to this area. Certain parcels cover land that can directly be seen from the site, and specifically from County Road 15 as it passes through the site, and from the monument at the site. Additionally, several are close enough to the monument that noise from development could potentially be heard even if said development was located to not

be visible. The monument is where the general public has access to the site, as the site is on private land, and it is where Native Americans, namely members of the Ute Indian Tribe of the Uintah and Ouray Reservation (Ute Indian Tribe), visit the site. The WRFO is currently in the process of trying to map what will be used as the site viewshed (visual and auditory) for future analysis purposes. Tribal consultation is currently being done which may potentially affect this determination.

In the south group of parcels, there is one known site of religious concern, being the Sky Aerie site, which when excavated contained the remains of multiple individuals.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: Normally, leasing in itself does not directly threaten potential Native American religious sites and values found within an area, but previous cases suggest that consultation with the involved tribes should be accomplished before the lease sale in order to determine Native American concerns. Analysis was done based off of visual resource standards, identifying the places where the most people visit an area, and analyzing what would be visible in the foreground (0 to 5) and background (5 to 15 miles), and it was determined that parcels 6153, 6166, 6167, and portions of 6053, 6169, and 6170, are in the viewshed of the monument and the other pullout/parking areas within the site itself. No analysis has currently been done on the auditory viewshed of the area, and should be done prior to the approval of any APD.

Letters requesting consultation were mailed to officials of the Ute Indian Tribe, the Southern Ute Indian Tribe, the Ute Mountain Ute Tribe, and the Eastern Shoshone Tribe on November 14, 2011. Through follow-up phone calls thirty days after receipt, WRFO personnel will discuss the proposed lease sale with the NAGPRA (Native American Graves Protection and Repatriation Act) representatives of the Tribes as well as the Chairmen/Chairwomen. Any problems identified during this process will be resolved prior to the proposed lease sale.

Cumulative Effects: As leasing itself does not involve ground disturbance specific cumulative effects of this action cannot be identified at this time. However leasing of parcels 6153, 6166, 6167, and portions of 6053, 6169, and 6170, on the land surrounding Thornburgh Battlefield, and subsequently allowing development on them, could cause cumulatively negative effects both auditorally and visually to the experience one has when visiting the monument at the site, which is known to be done by members of the Ute Indian Tribe.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: There would be no impacts from the No Action Alternative.

Cumulative Effects: There would be no cumulative effect caused by the No Action Alternative.

Mitigation: In addition to the stipulations for the protection of Cultural Resources if new information is brought forward during the current or any future consultation with Native American tribes, additional terms and conditions for mitigation may have to be negotiated or enforced to protect resource values.

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VISUAL RESOURCES

Affected Environment: Visual resource management (VRM) is broken into four classes. The areas where the proposed parcels for this lease sale lie within VRM Classes II, III and IV. The objective of the VRM Class II is to retain the existing character of the landscape. Management activities may be visible but should not attract attention. The objective of the VRM Class III is to partially retain the existing character of the landscape. The level of change to the characteristic landscape could be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape. Every attempt, however, should be made to reduce or eliminate activity impacts through careful location, minimal disturbance, and repeating the basic landscape elements. The objective of VRM Class IV is to provide for facilities that require major modification of the landscape. The level of change to the landscape can be high and management activities may dominate the view and be the major focus of attention, however impacts should be minimized through location and design by repeating line, form, color, and texture. The majority of the parcels proposed for lease lie within VRM Class III areas, while scattered parcels lie within VRM Class II and Class IV areas.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: Any surface disturbing activities would create an impact on the visual resource, especially those that create a sharp contrast in form, line, color and texture. Above ground facilities such as condensate and produced water or oil storage tanks that rise above eight feet would provide a geometrically strong vertical and horizontal visual contrast in form and line to characteristic landscape and vegetation. The construction of access roads, well pads, and other ancillary facilities would modify the existing visual resources with the greatest impact occurring in VRM Class II areas. High use areas, such as major travel ways and recreation or cultural sites, would also be more sensitive to visual impact on the surrounding landscape.

Cumulative Effects: Continued oil and gas develop activities, combined with other surface disturbing activities, will cumulatively impact the visual resource in WRFO. VRM Class II areas are particularly vulnerable to cumulative visual changes on the landscape.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: There would be no impacts to visual resources from the No Action Alternative.

Cumulative Effects: No additional known cumulative effects to visual resources from oil and gas activities would be expected from the No Action Alternative.

Mitigation: For VRM Class II, III and IV areas, all facilities, including meter buildings, would be painted a color determined by the Authorized Officer at the time of development to blend with the vegetative and/or landform setting and minimize contrast as much as possible. Additional COAs, such as landform contouring, vegetation screening, and ridgeline avoidance, may be added on a case by case basis for each APD. Each COA will be developed based on site specific analysis of the APD to reduce contrasts with the form, line, color, and texture of the

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surrounding landscape to ensure that the objectives of the respective VRM Class may be retained.

HAZARDOUS OR SOLID WASTES

Affected Environment: There are no known hazardous or other solid wastes on the proposed lease sale parcels.

Environmental Consequences of the Proposed Action: A determination will be made as to whether solid or hazardous wastes have been previously used, stored, or disposed of at proposed oil and gas construction sites at the time individual APDs are submitted. Substances emitted during and used in the exploration, development, and production of oil and gas reserves may pose a risk of harm to human health and the environment. Potential impacts will be analyzed in subsequent environmental analysis.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: There would be no impacts from the No Action Alternative, as there would be no action authorizing the generation, use, or storage of hazardous materials.

Cumulative Effects: No cumulative effects associated with the No Action Alternative have been identified.

Mitigation: Oil and gas operations will, at a minimum, comply with the Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development "The Gold Book" (BLM 2007). In addition, management of waste in oil and gas operations will be managed in accordance with all Federal, State, and local regulations.

At the time of APD approval, Conditions of Approval (COAs) will be attached to ensure compliance with environmental obligations, 43 CFR §3162.5.

RANGELAND MANAGEMENT

Affected Environment: The nominated parcels occur within 22 different livestock grazing allotments administered by the BLM WRFO. The grazing allotments involved include Banta Flats (#06343), Blacks Gulch (#06612), Chokecherry (#06609), Gower Gulch (#06610), Greasewood (#06036), Keystone (#06605), Kourlis H (#06800), McAndrews Gulch (#06600), North Fork Price Creek (#06607), Pinyon Ridge (#06333), Rattlesnake Mesa (#06808), River (#06602), Rosenlund (#06806), South Fork Price Creek (#06608), South Gower Gulch (#06611), Jensen SWA (#06801), Theos M (#06805), Theos T (#06812), Thornburgh (#06802), Twin Buttes (#06346), Yellow Jacket (#06858), and Yellow Jacket South (#06826). Most of the permitted livestock grazing use occurs during the spring, summer, and fall but some of the permitted livestock use in these allotments also includes winter grazing. Throughout these allotments there are long term trend monitoring sites and various range improvement projects including fences, corrals, and water developments; all of which could potentially be impacted by oil and gas development activities.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: The actual amount of direct and indirect effects to livestock grazing in any given allotment cannot be predicted until the site-specific APD stage of development. General direct effects on livestock grazing would be forage loss associated with vegetation removal. The amount of forage loss would vary based on the productivity of the affected range site prior to disturbance, the distance of that site from livestock water sources and the topography of the site. Livestock make the most use of areas less than one mile from water sources and areas with gentle topography, in areas where development occurs more than a mile from water sources or on steeper slopes, forage losses resulting from development would have less impact on livestock grazing. Interim reclamation of portions of each area disturbed for oil and gas development would reduce forage losses as vegetation re-establishes. After successful final reclamation, herbaceous forage production would likely be slightly higher than pre-disturbance levels until woody vegetation reestablishes.

Indirectly there would be additional forage losses associated with dust deposition on vegetation adjacent to roads or the pad/facility during its development. Dust coated vegetation tends to be less palatable to grazing animals including livestock. Additionally, during periods of intensive development livestock may tend to avoid the area due to the increased activity and noise levels.

Rangeland improvements such as fences, corrals, and watering facilities could be impacted by road and pad construction though most such situations would be mitigated by moving the road or pad or reconstructing the range improvement as part of the development action. Placement of facilities near rangeland improvement projects could compromise their usefulness, particularly during the development stage. Where pads are placed near water sources, there is an increased potential for stock to use the pad areas for resting, and rubbing on facilities. This increases the potential for livestock to be exposed to various drilling related hazards.

Cumulative Effects: Overall, the Proposed Action would result in continued oil and gas development activities similar to what has occurred throughout the area over the last 30-plus years. Where development occurs there would be temporary, short-term forage losses potentially resulting in adjustments to permitted grazing use. A slight positive benefit would be likely where successful reclamation increases the production of forage, especially on sites where forage production had previously been below site potential. There would likely be no significant direct or indirect cumulative impact on livestock grazing operations in these allotments. However, cumulative impacts from past, present, and possible future oil and gas activities could have a long-term effect on the native range's carrying capacity, thus influencing the authorized animal unit month, or AUMs. This possible affect would be determined during the grazing permit renewal process which includes an evaluation of forage capacity available for livestock. It is foreseeable that the grazing permit holder could lose a portion of permitted active AUMs due to a loss of forage associated with oil and gas development within the authorized BLM grazing allotment(s).

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: The No Action Alternative would result in no change from the current situation of on-going oil and gas development activities and livestock grazing. There would be no additional oil and gas leases in the 22 allotments listed above, and there would be no additional potential for loss of AUMs or impacts to range improvements in association with oil and gas development.

Cumulative Effects: Cumulative effects are the same as those analyzed in the Proposed Action.

Mitigation: Site specific analysis may lead to application of COAs at the APD stage that may include avoiding long-term trend monitoring sites by at least 300 feet and, repairing, or replacing any rangeland improvements impacted by oil and gas development activities.

FLOODPLAINS, HYDROLOGY, AND WATER RIGHTS

Affected Environment: Water would be used for construction, drilling, completion and hydraulic fracturing operations as part the site-specific development phase. Sources of water would be identified during project proposals and evaluated for impact to hydrology and water rights.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: The development of fluid minerals on the proposed lease parcels would deplete water sources from both surface and ground water supplies and has the potential to impact water rights if sources are not properly permitted for this use. Only one lease parcel, 6187, has a portion of the area within the floodplain of a perennial waterway. The majority of the other areas are in the headwaters of large ephemeral systems such as Cottonwood Creek, Crooked Wash, Deep Channel, or in small watersheds tributary to the White or Yampa Rivers. Although lease development activities are expected to increase peak flows, it is unlikely that impacts would be measurable in the White or Yampa River.

Cumulative Effects: The cumulative effects analysis area is the lease parcels and portions of the White and Yampa Rivers below these areas. The lease parcels have dispersed recreation and livestock grazing that is likely to contribute to increase in peak flows due to compaction and vegetation removal. These changes in storm-water runoff are unlikely to be measurable in the White or Yampa River, but could lead to in-channel erosion during flood-events that are greater than what would occur without leasing. Floodplains may be impacted in areas that experience higher peak flows due to more channel scour, localized erosion and aggradation of sediments in the floodplain.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: No water would be used to develop fluid minerals on the leases under the No Action Alternative and no changes to peak flows and floodplains would occur. No direct, indirect, or cumulative impacts are expected from oil and gas development in the lease parcels.

Mitigation: An estimate of the volumes of water used for construction, drilling, completion, fracing and dust abatement will be provided as per Onshore Order #1 requirements during site-specific review of an APD. The source of this water will be evaluated for potential impacts to hydrology and water rights when the use is proposed.

REALTY AUTHORIZATIONS

Affected Environment: The BLM issues right-of-way (ROW) grants to authorize uses across BLM-administered public lands, in accordance with regulations, to help ensure that public lands are managed to benefit the public and to avoid undue or unnecessary degradation. A ROW is required for all uses outside the boundaries of the oil and gas lease (off-lease) for the purpose of on-lease development, regardless of who owns or controls the development.

Environmental Consequences of the Proposed Action: The level and location of direct, indirect, or cumulative effects cannot be predicted until the site-specific APD stage of development. Existing ROWs can be impacted by development, including roads, pipelines, well pads, and utilities. To avoid impacts to existing uses, the applicant would coordinate with the existing ROW holders at the site-specific APD stage of development. As a result of the environmental analysis of the proposed site-specific APDs, locations, methods, and materials used for development of facilities may be adjusted to mitigate effects.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: Right-of-way activities within the project areas will continue to occur much as they do currently.

Cumulative Effects: No cumulative effects associated with the No Action Alternative have been identified.

Mitigation: None.

RECREATION

Affected Environment: The Proposed Action is located within the White River Extensive Recreation Management Area (ERMA). The ERMA is managed by the BLM to provide the general public with a highly diverse range of outdoor recreational activities. Portions of the project area provide opportunities for solitude and primitive, dispersed types of recreation such as primitive camping, hiking, antler shed collecting, hunting, and wildlife watching. Other portions of the project area provide opportunities for a more active type of recreation and are popular for off-highway vehicle (OHV) use. Hunting is the predominant recreational activity within the ERMA, with the highest rate of use occurring during the upland big game hunting season (mid-August through December). There are no developed recreation sites or facilities in the project area.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: A portion of Parcel 6172, located in T 3 N, R 97 W, Section 25, lies within an area potentially containing lands with wilderness characteristics (Polygon 19). It is recommended that this parcel be deferred from leasing until which time a complete inventory can be conducted to determine the area's naturalness, and opportunities for solitude and primitive types of recreation. Oil and gas field development in areas deemed suitable for solitude and primitive types of recreation may be detrimental to these values and ultimately remove opportunities for this type of recreation.

Recreational hunting patterns depend largely on big game migration within the WRFO. As such, during oil and gas field development when there is typically a higher presence of vehicular traffic and other activity, the public would likely be displaced from the actual sites of oil and gas infrastructure development if big game is displaced. However, as with already developed fields in other portions of the WRFO, hunters generally continue to hunt in close proximity of the actual sites of development, so long as big game is present. The presence of oil and gas infrastructure, in and of itself, does not necessarily deter recreational hunting if the quality and abundance of game is sufficient. The amount and severity of recreational displacement is often highly site specific, based on the development action proposed and is addressed in subsequent site specific analyses. The Terrestrial Wildlife section provides a detailed discussion of big game wildlife activity.

Portions of lease parcels 6053, 6166, 6058, 6057 and 6170 are located within the Jensen State Wildlife Area (SWA). As described in the terrestrial wildlife section, higher elevation aspen communities in close proximity to perennial streams (namely James Creek) provide import fawning and calving habitat for elk. Additionally the isolated (largely surrounding by privately-owned land) scrub oak and mountain mahogany communities provide important winter habitat for big game. As such, this area provides high quality, primitive hunting opportunities unique to the area. Jensen SWA is closed to the public from December 1 – July 14. Due to these important wildlife values, and the outstanding recreational opportunities, those parcels or portions of parcels which lie in the Jensen SWA are recommended for deferral from leasing (see Attachment B).

Cumulative Effects: Continued oil and gas field development, in conjunction with other forms of energy development and other surface disturbing activities, could cumulatively have a negative impact on the recreation experience through the removal of areas suitable for primitive types of recreation and solitude; the continued displacement of big game species; and increased potential for conflict with other uses and users.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: Recreational activities within the project areas would continue to occur much as they do currently.

Cumulative Effects: No cumulative effects associated with the No Action Alternative have been identified.

Mitigation: The mitigation measures specific to big game that are discussed in the Terrestrial Wildlife section are applicable to recreation. The portion of Parcel 6172 located in T 3 N, R 97 W, Section 25 should be deferred from leasing until a lands with wilderness characteristics inventory is conducted to allow for further analysis of its suitability as a high value recreation area.

AREAS OF CRITICAL ENVIRONMENTAL CONCERN

Affected Environment: The White River Riparian ACEC is designated for important biologically diverse plant communities, bald eagle roosts, and the federally listed Colorado

pikeminnow below the Taylor Draw Dam. Part of parcel 6187 contains part of the White River Riparian ACEC (Section 30, Township 3 North, Range 98). Currently, there are no special status plant species know to occur in parcel 6187; however, Ute Ladies'-tresses (*Spiranthes diluvialis*) is a threatened riparian plant species that could potentially occur along the White River. See the Special Status Plant Species section for further analysis.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: Addressed in Special Status Animal Species, Special Status Plant Species, and Wetlands and Riparian Zones sections.

Cumulative Effects: Addressed in Special Status Animal Species, Special Status Plant Species, and Wetlands and Riparian Zones sections.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: Addressed in Special Status Animal Species, Special Status Plant Species, and Wetlands and Riparian Zones sections.

Cumulative Effects: Addressed in Special Status Animal Species, Special Status Plant Species, and Wetlands and Riparian Zones sections.

Mitigation: Additional site-specific mitigation measures will be implemented at the APD stage based on the submitted Surface Use and Drilling Plans. Examples of potential conditions of approval include: 1) plant surveys must be conducted prior to any surface disturbing activities within the ACEC boundaries; 2) the timing required for conducting surveys may require deferring activities for longer than 60 days; 3) surface disturbance will not be allowed within mapped location of these plants; 4) if special status plant species are found within the White River Riparian ACEC surface disturbance or facilities would be required to be relocated more than 200 meters of the mapped plant population. For further mitigation see the Special Status Animal Species, Special Status Plant Species, and Wetlands and Riparian Zones sections.

REFERENCES CITED:

Armstrong, Harley J. and David G. Wolny
1989 *Paleontological Resources of Northwest Colorado: A Regional Analysis*. Museum of Western Colorado, Grand Junction, Colorado.

BLM 2007 Reasonable Foreseeable Development Scenario For Oil And Gas Activities In The BLM White River Field Office: Rio Blanco, Moffat And Garfield Counties, Colorado

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Doherty, K.E.
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Holloran, M.J.
2005 Greater sage-grouse (*Centrocercus urophasianus*) population response to natural gas field development in western Wyoming. PhD Dissertation, University of Wyoming, Laramie.

Ingelfinger, H. and S. Anderson.
2004 Passerine response to roads associated with natural gas extraction in a sagebrush steppe habitat. Western North American Naturalist 64(3): 385-395.

Sawyer, H., M.J. Dauffman, and R.M. Nielson.
2009 Influence of well pad activity on winter habitat selection patterns of mule deer. Journal of Wildlife Management 73: 1052-1061.

Sawyer, H., R.M. Nielson, F.G. Lindzey, and L.L. McDonald.
2006 Winter habitat selection of mule deer before and during development of a natural gas field. Journal of Wildlife Management 70: 396-403.

Tweto, Ogden
1979 Geologic Map of Colorado. United States Geologic Survey, Department of the Interior, Reston, Virginia.

Walker, B.L., D.E. Naugle, and K.E. Doherty.
2007 Greater sage-grouse population response to energy development and habitat loss. Journal of Wildlife Management 71: 2644-2654.

TRIBES, INDIVIDUALS, ORGANIZATIONS, OR AGENCIES CONSULTED:
Letters requesting consultation were mailed to officials of the Ute Indian Tribe of the Uintah and Ouray Reservation, the Southern Ute Indian Tribe, the Ute Mountain Ute Tribe, and the Eastern Shoshone Tribe on November 14, 2011.

INTERDISCIPLINARY REVIEW:

Name	Title	Area of Responsibility	Date Signed
Bob Lange	Hydrologist	Air Quality; Surface and Ground Water Quality; Floodplains, Hydrology, and Water Rights; Soils	11/7/2011
Zoe Miller	Ecologist	Areas of Critical Environmental Concern; Special Status Plant Species	10/27/2011
Kristin Bowen	Archaeologist	Cultural Resources; Native American Religious Concerns; Paleontological Resources	11/9/2011
Mary Taylor	Rangeland Management Specialist	Invasive, Non-Native Species; Vegetation; Rangeland Management	11/3/2011
Lisa Belmonte	Wildlife Biologist	Migratory Birds; Special Status Animal Species; Terrestrial and Aquatic Wildlife; Wetlands and Riparian Zones	11/10/2011

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Name	Title	Area of Responsibility	Date Signed
Paul Kelley	Supervisory Natural Resource Specialist	Hazardous or Solid Wastes	11/14/2011
Chad Schneckenburger	Outdoor Recreation Planner	Wilderness; Visual Resources; Access and Transportation; Recreation,	10/26/2011
Zoe Miller	Ecologist	Forest Management	10/27/2011
Will Hutto	Fuels Specialist	Fire Management	10/25/2011
Paul Daggett	Mining Engineer	Geology and Minerals	11/4/2011
Stacey Burke	Realty Specialist	Realty	10/27/2011
Melissa J. Kindall	Range Technician	Wild Horse Management	11/4/2011
Paul Kelley	Supervisory Natural Resources Specialist	Project Lead – Document Preparer	11/14/2011
Heather Sauls	Planning & Environmental Coordinator	NEPA Compliance	11/17/2011

ATTACHMENTS:

Attachment A – Pre-EA Parcels Proposed for Lease
Attachment B – Parcels Available for Lease with Deferred Portions
Attachment C – Parcels Available for Lease with Applied Stipulations
Attachment D – Location Maps of All Nominated Parcels
Attachment E – Locations Maps of Offered Parcels
Attachment F – Exhibits Description

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Attachment A
Pre-EA Parcels Proposed for Lease
May 2012 – Colorado Competitive Oil and Gas Lease Sale

PARCEL ID: 6063 SERIAL #:

T. 0010S., R 1030W., 6TH PM
Sec. 10: S2NE,SE;
Sec. 14: S2;
Sec. 25: ALL;
Sec. 26: ALL;
Sec. 35: E2,W2NW;
Sec. 36: E2;

Rio Blanco County
Colorado 2560.000 Acres

All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

All lands are subject to Exhibit CO-39 to protect cultural resources.

BLM; CDO: WRRA

PARCEL ID: 6165 SERIAL #:

T. 0010S., R 1030W., 6TH PM
Sec. 28: ALL;
Sec. 29: ALL;
Sec. 32: N2,SE;
Sec. 33: ALL;

Rio Blanco County
Colorado 2400.000 Acres

All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

All lands are subject to Exhibit CO-39 to protect cultural resources.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:

T. 0010S., R 1030W., 6TH PM
Sec. 28: N2;

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Sec. 28: NESW,W2SW,SWSE,E2SE;
Sec. 29: NE,W2,W2SE,SESE;
Sec. 32: NW,E2;
Sec. 33: NWNE,W2NW,SENW,S2;

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:

T. 0010S., R 1030W., 6TH PM
Sec. 28: ALL;
Sec. 29: ALL;
Sec. 32: NW,E2;
Sec. 33: ALL;

BLM; CDO: LSRA

PARCEL ID: 6053 SERIAL #:

T. 0020N., R 0920W., 6TH PM
Sec. 5: Lot 3,4;
Sec. 5: S2NW;
Sec. 6: Lot 1-3;
Sec. 6: S2NE,SENW,E2SW;
Sec. 7: E2NW,NESW,N2SE,SESE;
Sec. 18: Lot 1-4,8,9;
Sec. 18: E2SW,W2SE;

Rio Blanco County
Colorado 1123.430 Acres

PVT/BLM;BLM; CDO: WRRA

PARCEL ID: 6153 SERIAL #:

T. 0020N., R 0920W., 6TH PM
Sec. 4: Lot 10;
Sec. 4: SWSE;
Sec. 5: SW;
Sec. 8: NW,W2SW;
Sec. 9: N2N2,S2S2;
Sec. 16: ALL;
Sec. 17: E2,N2NW;

Rio Blanco County

DRAFT

Colorado 1838.790 Acres

All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

All lands are subject to Exhibit CO-39 to protect cultural resources.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:

T. 0020N., R 0920W., 6TH PM
Sec. 8: SWSW;
Sec. 8: NWSW;
Sec. 17: NWNW;
Sec. 18: Lot 8,9;
Sec. 18: W2SE;

The following lands are subject to Exhibit WR-NSO-01 to protect potential landslide areas:

T. 0020N., R 0920W., 6TH PM
Sec. 4: Lot 10;
Sec. 4: SWSE;
Sec. 9: N2N2,SESE,S2SW;
Sec. 16: W2SE,SW;
Sec. 16: W2NE,SENE,NW;
Sec. 17: SE;
Sec. 18: Lot 2,3,4;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:

T. 0020N., R 0920W., 6TH PM
Sec. 5: S2SW;
Sec. 8: NW;
Sec. 18: Lot 1,2,3;
Sec. 18: Lot 8;
Sec. 18: W2SE;
Sec. 18: E2SW;

The following lands are subject to Exhibit WR-TL-07 to protect elk production areas:

T. 0020N., R 0920W., 6TH PM
Sec. 16: SE;
Sec. 16: SWNE,E2NE;

The following lands are subject to Exhibit WR-TL-08 to protect big game severe winter range:

T. 0020N., R 0920W., 6TH PM

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Sec. 4: Lot 10;
Sec. 4: SWSE;
Sec. 17: W2SE,SESE;
Sec. 18: Lot 3,4;
Sec. 18: Lot 9;
Sec. 18: SESW;
Sec. 18: SWSE;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:

T. 0020N., R 0920W., 6TH PM
Sec. 4: Lot 10;
Sec. 4: SWSE;
Sec. 5: S2NW,SW;
Sec. 8: NWSW;
Sec. 8: NW,SWSW;
Sec. 9: N2N2,S2S2;
Sec. 16: N2;
Sec. 16: S2;
Sec. 17: NE,NENW;

PVT/BLM; CDO: WRRA

PARCEL ID: 6169 SERIAL #:

T. 0020N., R 0920W., 6TH PM
Sec. 21: NE,E2W2,N2SE,SWSE;
Sec. 28: Lot 8,10;
Sec. 28: E2NW;
Sec. 29: Lot 5,6,9,18,19;
Sec. 29: NWSW;
Sec. 30: Lot 2,3,5;

Rio Blanco County
Colorado 766.640 Acres

All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

All lands are subject to Exhibit CO-39 to protect cultural resources.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:

T. 0020N., R 0920W., 6TH PM
Sec. 21: E2SW,NESE,SWSE;

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Sec. 28: Lot 8,10;
Sec. 28: E2NW;
Sec. 29: NWSW;
Sec. 30: Lot 5;

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:

T. 0020N., R 0920W., 6TH PM
Sec. 21: NE,E2W2,NESE,W2SE;
Sec. 28: Lot 8;
Sec. 28: E2NW;

The following lands are subject to Exhibit WR-NSO-01 to protect potential landslide areas:

T. 0020N., R 0920W., 6TH PM
Sec. 21: NENW,SWSE;
Sec. 28: Lot 8,10;
Sec. 28: E2NW;
Sec. 29: Lot 5,6,9,18;
Sec. 29: NWSW;
Sec. 30: Lot 2,3,5;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:

T. 0020N., R 0920W., 6TH PM
Sec. 21: NESE,W2SE;
Sec. 29: Lot 5;
Sec. 30: Lot 5;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:

T. 0020N., R 0920W., 6TH PM
Sec. 21: E2SW,NESE,W2SE;
Sec. 28: Lot 8;
Sec. 28: E2NW;
Sec. 29: Lot 5;
Sec. 30: Lot 2,3,5;

The following lands are subject to Exhibit WR-TL-07 to protect elk production areas:

T. 0020N., R 0920W., 6TH PM
Sec. 21: NENE;

The following lands are subject to Exhibit WR-TL-08 to protect big game severe winter range:

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T. 0020N., R 0920W., 6TH PM
Sec. 28: Lot 10;
Sec. 29: Lot 5,6,9,18;
Sec. 29: NWSW;
Sec. 30: Lot 2,3,5;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:

T. 0020N., R 0920W., 6TH PM
Sec. 21: NE,E2W2,NESE,W2SE;
Sec. 28: Lot 8,10;
Sec. 28: E2NW;
Sec. 29: Lot 5,6,9,18;
Sec. 29: NWSW;
Sec. 30: Lot 2,3,5;

PVT/BLM; CDO: WRRA

PARCEL ID: 6166 SERIAL #:

T. 0030N., R 0920W., 6TH PM
Sec. 19: Lot 1-4;
Sec. 19: E2;
Sec. 20: SWNW,W2SW;
Sec. 29: W2W2,SESW;
Sec. 30: Lot 1-4;
Sec. 30: E2;
Sec. 31: Lot 1-4;
Sec. 31: E2;
Sec. 32: Lot 3,5,6,10,11;
Sec. 32: SWNE,W2SE,W2;

Rio Blanco County
Colorado 2383.240 Acres

The following lands are subject to Exhibit CO-03 to protect raptor nests:

T. 0030N., R 0920W., 6TH PM
Sec. 29: W2SW;
Sec. 30: E2SE;

The following lands are subject to Exhibit CO-18 to protect raptor nesting and fledgling habitat:

T. 0030N., R 0920W., 6TH PM
Sec. 20: SWSW;

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Sec. 29: NWNW,W2SW;
Sec. 30: E2SE;

The following lands are subject to Exhibit CO-25 to protect surface or underground coal mines:

T. 0030N., R 0920W., 6TH PM
Sec. 20: SWNW,W2SW;
Sec. 29: SESW,W2W2;

The following lands are subject to Exhibit CO-26 to protect fragile soils:

T. 0030N., R 0920W., 6TH PM
Sec. 19: Lot 1,2,3,4;
Sec. 19: W2E2;
Sec. 30: Lot 1,2,3,4;
Sec. 30: S2SE;

All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

All lands are subject to Exhibit CO-39 to protect cultural resources.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:

T. 0030N., R 0920W., 6TH PM
Sec. 29: W2SW,SESW;
Sec. 30: SWSE,E2SE;
Sec. 31: NE,S2SE;
Sec. 31: NESE;
Sec. 32: Lot 5,6,10,11;
Sec. 32: SWNE,SESW,W2SE;
Sec. 32: NENW,W2W2;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:

T. 0030N., R 0920W., 6TH PM
Sec. 29: W2SW;
Sec. 30: Lot 3,4;
Sec. 30: SE;
Sec. 31: Lot 4;
Sec. 31: S2NE,NWSE;
Sec. 31: NESE;
Sec. 32: SWNW,NWSW;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:

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T. 0030N., R 0920W., 6TH PM
Sec. 29: W2SW,SESW;
Sec. 30: Lot 3,4;
Sec. 30: SE;
Sec. 31: Lot 1,3,4;
Sec. 31: NE,W2SE,SESE;
Sec. 31: NESE;
Sec. 32: W2W2;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:

T. 0030N., R 0920W., 6TH PM
Sec. 29: W2SW,SESW;
Sec. 30: Lot 3,4;
Sec. 30: SE;
Sec. 31: Lot 1,2,3,4;
Sec. 31: NESE;
Sec. 31: NE,W2SE,SESE;
Sec. 32: Lot 3,5,6,10,11;
Sec. 32: SWNE,SENW,E2SW,W2SE;
Sec. 32: NENW,W2W2;

PVT/BLM;BLM; CDO: WRRA

PARCEL ID: 6167 SERIAL #:

T. 0030N., R 0920W., 6TH PM
Sec. 20: E2SE;
Sec. 28: Lot 26,27;
Sec. 29: E2NE;

Rio Blanco County
Colorado 224.440 Acres

The following lands are subject to Exhibit CO-03 to protect raptor nests:

T. 0030N., R 0920W., 6TH PM
Sec. 28: Lot 26;
Sec. 29: SENE;

The following lands are subject to Exhibit CO-18 to protect raptor nesting and fledgling habitat:

T. 0030N., R 0920W., 6TH PM
Sec. 28: ALL;
Sec. 29: SENE;

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The following lands are subject to Exhibit CO-25 to protect surface or underground coal mines:

T. 0030N., R 0920W., 6TH PM
Sec. 20: ALL;
Sec. 28: Lot ALL;
Sec. 29: E2NE;

The following lands are subject to Exhibit CO-26 to protect fragile soils:

T. 0030N., R 0920W., 6TH PM
Sec. 20: ALL;
Sec. 28: Lot ALL;
Sec. 29: E2NE;

All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

All lands are subject to Exhibit CO-39 to protect cultural resources.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:

T. 0030N., R 0920W., 6TH PM
Sec. 28: Lot 26,27;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:

T. 0030N., R 0920W., 6TH PM
Sec. 28: Lot ALL;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:

T. 0030N., R 0920W., 6TH PM
Sec. 28: Lot ALL;

PVT/BLM;BLM; CDO: WRRA

PARCEL ID: 6057 SERIAL #:

T. 0020N., R 0930W., 6TH PM
Sec. 2: Lot 1-4;
Sec. 2: S2N2,S2;
Sec. 3: Lot 1-4;
Sec. 3: S2N2,S2;
Sec. 4: Lot 24;

DRAFT

Sec. 4: SESE;

Rio Blanco County
Colorado 1357.740 Acres

All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

All lands are subject to Exhibit CO-39 to protect cultural resources.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:

T. 0020N., R 0930W., 6TH PM
Sec. 4: Lot 24;
Sec. 4: SESE;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:

T. 0020N., R 0930W., 6TH PM
Sec. 2: Lot 1,2;
Sec. 2: S2N2,N2SW;
Sec. 3: Lot 3;
Sec. 3: Lot 1,2;
Sec. 3: S2NE,NWSE;
Sec. 3: SENW,NESW,W2SW;
Sec. 4: Lot 24;
Sec. 4: SESE;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:

T. 0020N., R 0930W., 6TH PM
Sec. 2: Lot 1,2,3,4;
Sec. 2: S2N2,N2S2;
Sec. 3: Lot 3,4;
Sec. 3: Lot 1,2;
Sec. 3: S2NE,NESE,W2SE;
Sec. 3: S2NW,SW;
Sec. 4: Lot 24;
Sec. 4: SESE;

The following lands are subject to Exhibit WR-TL-07 to protect elk production areas:

T. 0020N., R 0930W., 6TH PM
Sec. 2: Lot 1,2,3,4;
Sec. 2: S2N2,S2;
Sec. 3: Lot 1,2;

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Sec. 3: Lot 3,4;
Sec. 3: S2NW,SW;
Sec. 3: S2NE,SE;

The following lands are subject to Exhibit WR-TL-08 to protect big game severe winter range:

T. 0020N., R 0930W., 6TH PM
Sec. 2: Lot 2,3,4;
Sec. 2: SW,SWSE,E2SE;
Sec. 2: SWNE,S2NW;
Sec. 3: Lot 3,4;
Sec. 3: Lot 1,2;
Sec. 3: S2NW,SW;
Sec. 3: S2NE,SE;
Sec. 4: Lot 24;
Sec. 4: SESE;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:

T. 0020N., R 0930W., 6TH PM
Sec. 2: Lot 1,2,3,4;
Sec. 2: S2N2,S2;
Sec. 3: Lot 1,2;
Sec. 3: Lot 3,4;
Sec. 3: S2NE,SE;
Sec. 3: S2NW,SW;
Sec. 4: Lot 24;
Sec. 4: SESE;

PVT/BLM; CDO: WRRA

PARCEL ID: 6058 SERIAL #:

T. 0020N., R 0930W., 6TH PM
Sec. 9: Lot 5;
Sec. 9: NW,N2SW,SESW,NWSE;
Sec. 10: Lot 1,4,5,16,27,29;
Sec. 10: NENW;
Sec. 11: E2;
Sec. 12: W2NW,SW;

Rio Blanco County
Colorado 1108.560 Acres

DRAFT

All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

All lands are subject to Exhibit CO-39 to protect cultural resources.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:

T. 0020N., R 0930W., 6TH PM
Sec. 10: Lot 1,4;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:

T. 0020N., R 0930W., 6TH PM
Sec. 9: Lot 5;
Sec. 9: SWNW,E2NW,NWSE;
Sec. 10: Lot 5,16;
Sec. 11: SWNE,NWSE,SESE;
Sec. 12: W2SW;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:

T. 0020N., R 0930W., 6TH PM
Sec. 9: Lot 5;
Sec. 9: NW,NWSE,N2SW;
Sec. 10: Lot 5,16;
Sec. 11: W2NE,SENE,NWSE,E2SE;
Sec. 12: SW;

The following lands are subject to Exhibit WR-TL-07 to protect elk production areas:

T. 0020N., R 0930W., 6TH PM
Sec. 9: W2NW;
Sec. 10: Lot 29;
Sec. 10: Lot 1,5;
Sec. 10: NENW;
Sec. 11: E2;
Sec. 12: W2NW,SW;

The following lands are subject to Exhibit WR-TL-08 to protect big game severe winter range:

T. 0020N., R 0930W., 6TH PM
Sec. 10: Lot 1,4,5,16;
Sec. 10: Lot 27,29;
Sec. 10: NENW;
Sec. 11: E2;
Sec. 12: W2W2;

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The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:

T. 0020N., R 0930W., 6TH PM
Sec. 9: Lot 5;
Sec. 9: NW,NWSE,NWSW,E2SW;
Sec. 10: Lot 27,29;
Sec. 10: Lot 1,4,5,16;
Sec. 10: NENW;
Sec. 11: E2;
Sec. 12: W2NW,SW;

PVT/BLM; CDO: WRRA

PARCEL ID: 6168 SERIAL #:

T. 0030N., R 0930W., 6TH PM
Sec. 23: ALL;
Sec. 24: Lot 1-4;
Sec. 24: W2E2,W2;
Sec. 26: ALL;
Sec. 27: Lot 1;
Sec. 27: E2NW,SWNW,SW,E2SE;

Rio Blanco County
Colorado 2322.340 Acres

The following lands are subject to Exhibit CO-25 to protect surface or underground coal mines:

T. 0030N., R 0930W., 6TH PM
Sec. 24: W2;
Sec. 27: SWNW,E2NW,SW,E2SE;

The following lands are subject to Exhibit CO-26 to protect fragile soils:

T. 0030N., R 0930W., 6TH PM
Sec. 27: E2W2;

All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

All lands are subject to Exhibit CO-39 to protect cultural resources.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:

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T. 0030N., R 0930W., 6TH PM
Sec. 27: SENW,SWSW;
Sec. 27: E2SE;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:

T. 0030N., R 0930W., 6TH PM
Sec. 26: SE;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:

T. 0030N., R 0930W., 6TH PM
Sec. 26: E2SW,SE;

The following lands are subject to Exhibit WR-TL-07 to protect elk production areas:

T. 0030N., R 0930W., 6TH PM
Sec. 27: E2SW,SESE;

The following lands are subject to Exhibit WR-TL-08 to protect big game severe winter range:

T. 0030N., R 0930W., 6TH PM
Sec. 26: SW;
Sec. 27: E2SW,E2SE;
Sec. 27: S2NW,W2SW;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:

T. 0030N., R 0930W., 6TH PM
Sec. 26: S2;
Sec. 27: S2NW,W2SW;
Sec. 27: E2SW,E2SE;

PVT/BLM; CDO: WRRA

PARCEL ID: 6170 SERIAL #:

T. 0030N., R 0930W., 6TH PM
Sec. 25: ALL;
Sec. 34: Lot 1,4;
Sec. 34: E2,E2NW,SW;
Sec. 35: ALL;
Sec. 36: ALL;

Rio Blanco County

DRAFT

Colorado 2559.080 Acres

All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

All lands are subject to Exhibit CO-39 to protect cultural resources.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:

T. 0030N., R 0930W., 6TH PM
Sec. 25: SE;
Sec. 25: SESW;
Sec. 34: Lot 1;
Sec. 34: N2NE,NESE;
Sec. 35: NWSW;
Sec. 36: NWNE;
Sec. 36: E2NW;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:

T. 0030N., R 0930W., 6TH PM
Sec. 25: S2SW;
Sec. 34: NWSW;
Sec. 34: E2SE,SWSW;
Sec. 35: W2NE,E2NW;
Sec. 36: W2,NESE,W2SE;
Sec. 36: SESE;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:

T. 0030N., R 0930W., 6TH PM
Sec. 25: E2SE;
Sec. 25: SW;
Sec. 34: Lot 4;
Sec. 34: NWSW,SESW;
Sec. 34: S2NE,SWSW,SE;
Sec. 35: NENE,W2NE,NW;
Sec. 35: NESW,W2SW,E2SE;
Sec. 36: W2NE,SENE,SESE;
Sec. 36: W2,NESE,W2SE;

The following lands are subject to Exhibit WR-TL-07 to protect elk production areas:

T. 0030N., R 0930W., 6TH PM
Sec. 34: Lot 4;
Sec. 34: E2NW,E2,SWSW;

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Sec. 34: NWSW,E2SW;
Sec. 35: ALL;
Sec. 36: W2NW,SENW,W2SE,SW;
Sec. 36: SWNE,SESE;

The following lands are subject to Exhibit WR-TL-08 to protect big game severe winter range:

T. 0030N., R 0930W., 6TH PM
Sec. 34: Lot 1,4;
Sec. 34: NWSW,E2SW;
Sec. 34: E2NW,E2,SWSW;
Sec. 35: W2,W2SE;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:

T. 0030N., R 0930W., 6TH PM
Sec. 25: SE;
Sec. 25: SW;
Sec. 34: Lot 1,4;
Sec. 34: NWSW,E2SW;
Sec. 34: E2NW,E2,SWSW;
Sec. 35: ALL;
Sec. 36: NE,SESE;
Sec. 36: W2,NESE,W2SE;

PVT/BLM; CDO: WRRA

PARCEL ID: 6210 SERIAL #:

T. 0030N., R 0930W., 6TH PM
Sec. 22: Lot 14,20,22;
Sec. 33: Lot 12,13,16,24,26;

Rio Blanco County
Colorado 224.730 Acres

The following lands are subject to Exhibit CO-25 to protect surface or underground coal mines:

T. 0030N., R 0930W., 6TH PM
Sec. 22: Lot 14,20,22;

The following lands are subject to Exhibit CO-26 to protect fragile soils:

T. 0030N., R 0930W., 6TH PM
Sec. 22: Lot 14,20,22;

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All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

All lands are subject to Exhibit CO-39 to protect cultural resources.

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:

T. 0030N., R 0930W., 6TH PM
Sec. 33: Lot 13,16,24,26;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:

T. 0030N., R 0930W., 6TH PM
Sec. 33: Lot 13,16,24,26;

The following lands are subject to Exhibit WR-TL-08 to protect big game severe winter range:

T. 0030N., R 0930W., 6TH PM
Sec. 33: Lot 12,13,16,24,26;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:

T. 0030N., R 0930W., 6TH PM
Sec. 33: Lot 12,13,16,24,26;

BLM; CDO: WRRA

PARCEL ID: 6176 SERIAL #:

T. 0030N., R 0950W., 6TH PM
Sec. 2: SW;
Sec. 3: SESW;
Sec. 4: Lot 6;
Sec. 10: Lot 8;
Sec. 10: NW,S2SE,SENE;
Sec. 11: NW,S2;

Rio Blanco County
Colorado 1019.790 Acres

All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

All lands are subject to Exhibit CO-39 to protect cultural resources.

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The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:

T. 0030N., R 0950W., 6TH PM
Sec. 3: SESW;
Sec. 4: Lot 6;
Sec. 10: NW;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:

T. 0030N., R 0950W., 6TH PM
Sec. 10: SESE;
Sec. 11: SWSW;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:

T. 0030N., R 0950W., 6TH PM
Sec. 3: SESW;
Sec. 10: S2SE;
Sec. 11: SWSW;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:

T. 0030N., R 0950W., 6TH PM
Sec. 3: SESW;
Sec. 4: Lot 6;
Sec. 10: Lot 8;
Sec. 10: NW,S2SE;
Sec. 11: SWSW;

BLM; CDO: WRRA

PARCEL ID: 6173 SERIAL #:

T. 0040N., R 0950W., 6TH PM
Sec. 8: Lot 5,6,8,10,12,25;
Sec. 17: SW;
Sec. 18: NE,E2W2,NESE;
Sec. 18: W2SE,SESE;
Sec. 19: NE,E2NW,E2SE;
Sec. 20: S2NW,S2;
Sec. 20: NE,N2NW;
Sec. 28: SWNW,NWSW,S2SW;
Sec. 33: W2,SE;
Sec. 33: NE;

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Moffat County
Colorado 2546.510 Acres

The following lands are subject to Exhibit CO-26 to protect fragile soils:

T. 0040N., R 0950W., 6TH PM
Sec. 8: Lot 5,6,8,10,12,25;
Sec. 17: SW;
Sec. 17: NWSW,E2SW;
Sec. 18: E2W2,E2;
Sec. 18: NE,E2W2,N2SE;
Sec. 19: NE,E2NW,E2SE;
Sec. 19: E2NW;
Sec. 20: NE,NENW,NESE;
Sec. 33: N2NE;

The following lands are subject to Exhibit CO-28 to protect riparian/wetland vegetation:

T. 0040N., R 0950W., 6TH PM
Sec. 8: Lot 12;
Sec. 20: NENE;

All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

All lands are subject to Exhibit CO-39 to protect cultural resources.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:

T. 0040N., R 0950W., 6TH PM
Sec. 18: SWNE,W2SE,SESE;
Sec. 19: NE,SENW,E2SE;
Sec. 20: W2NW,SW;
Sec. 28: SWSW;
Sec. 33: W2NW,SENW,SW,W2SE;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:

T. 0040N., R 0950W., 6TH PM
Sec. 20: SESW,SWSE;
Sec. 33: E2SW,W2SE;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:

T. 0040N., R 0950W., 6TH PM

Sec. 20: SWSW,E2SW;
Sec. 33: NWNW,SENW,SW,W2SE;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:

T. 0040N., R 0950W., 6TH PM
Sec. 18: SWNE,E2W2,W2SE,SESE;
Sec. 19: NE,E2NW,E2SE;
Sec. 20: W2NW,SW;
Sec. 28: SWSW;
Sec. 33: W2NW,SENW,SW,W2SE;

PVT/BLM;BLM; CDO: WRRACDO: LSRA

PARCEL ID: 5967 SERIAL #:

T. 0020N., R 0960W., 6TH PM
Sec. 3: Lot 5-8;
Sec. 3: SENE,SWNW,SESW,SE;

Rio Blanco County
Colorado 363.800 Acres

All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

All lands are subject to Exhibit CO-39 to protect cultural resources.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:

T. 0020N., R 0960W., 6TH PM
Sec. 3: Lot 6,7,8;
Sec. 3: SENE,SWNW,SESW,SE;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:

T. 0020N., R 0960W., 6TH PM
Sec. 3: SESW;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:

T. 0020N., R 0960W., 6TH PM
Sec. 3: Lot 5,6,7,8;
Sec. 3: SENE,SWNW,SESW,SE;

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BLM; CDO: WRRA

PARCEL ID: 6172 SERIAL #:

T. 0030N., R 0970W., 6TH PM
Sec. 25: N2NE,SENE,NESE,SWSE;
Sec. 27: N2,SW,W2SE;

Rio Blanco County
Colorado 760.000 Acres

All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

All lands are subject to Exhibit CO-39 to protect cultural resources.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:

T. 0030N., R 0970W., 6TH PM
Sec. 27: ALL;

The following lands are subject to Exhibit WR-LN-01 to alert lessee of potential requirements for protection of prairie dog towns:

T. 0030N., R 0970W., 6TH PM
Sec. 25: ALL;

All lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values.

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:

T. 0030N., R 0970W., 6TH PM
Sec. 25: ALL;

BLM; CDO: WRRA

PARCEL ID: 6177 SERIAL #:

T. 0030N., R 0980W., 6TH PM
Sec. 18: Lot 5-8;
Sec. 18: E2,E2W2;
Sec. 25: ALL;
Sec. 28: ALL;

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Sec. 29: ALL;

Moffat County / Rio Blanco County
Colorado 2533.920 Acres

The following lands are subject to Exhibit CO-26 to protect fragile soils:

T. 0030N., R 0980W., 6TH PM
Sec. 29: NENE,S2SW;

All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

All lands are subject to Exhibit CO-39 to protect cultural resources.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:

T. 0030N., R 0980W., 6TH PM
Sec. 18: Lot ALL;
Sec. 25: W2NE,SENE,NW,SE,S2SW;
Sec. 28: NWNW,E2NW,SW,E2;
Sec. 29: NENW,W2NW,SW,E2;

The following lands are subject to Exhibit WR-CSU-03 to protect the Black-Footed Ferret Reintroduction Area:

T. 0030N., R 0980W., 6TH PM
Sec. 18: Lot 5,6,7,8;
Sec. 18: NWNE,E2NW,NESW;

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:

T. 0030N., R 0980W., 6TH PM
Sec. 18: Lot ALL;
Sec. 25: NE,W2,NESE,W2SE;
Sec. 28: ALL;
Sec. 29: ALL;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:

T. 0030N., R 0980W., 6TH PM
Sec. 18: Lot 6;
Sec. 25: SWNW,SESE,W2SW;

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The following lands are subject to Exhibit WR-TL-01 to protect the nests of threatened, endangered, or candidate raptors:

T. 0030N., R 0980W., 6TH PM
Sec. 29: W2SW;

The following lands are subject to Exhibit WR-TL-03 to protect the nests of ferruginous hawks:

T. 0030N., R 0980W., 6TH PM
Sec. 18: Lot ALL;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:

T. 0030N., R 0980W., 6TH PM
Sec. 18: Lot 5,6,7;
Sec. 25: W2NW,S2SE,SW;

The following lands are subject to Exhibit WR-TL-05 to protect bald eagle winter roosts and concentration areas:

T. 0030N., R 0980W., 6TH PM
Sec. 29: W2SW;

The following lands are subject to Exhibit WR-TL-08 to protect big game severe winter range:

T. 0030N., R 0980W., 6TH PM
Sec. 18: Lot 5,6,7,8;
Sec. 18: E2W2,E2;
Sec. 25: NENW,W2NW,S2SE,SW;
Sec. 28: ALL;
Sec. 29: ALL;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:

T. 0030N., R 0980W., 6TH PM
Sec. 18: Lot ALL;
Sec. 25: NE,W2,NESE,W2SE;
Sec. 28: ALL;
Sec. 29: ALL;

BLM; CDO: WRRA

PARCEL ID: 6187 SERIAL #:

T. 0030N., R 0980W., 6TH PM

Sec. 30: Lot 10,12;
Sec. 30: NE,NENW,E2SE;
Sec. 36: N2;

Rio Blanco County
Colorado 670.100 Acres

All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

All lands are subject to Exhibit CO-39 to protect cultural resources.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:

T. 0030N., R 0980W., 6TH PM
Sec. 30: Lot 10,12;
Sec. 30: NE,NENW,E2SE;
Sec. 36: N2;

The following lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern:

T. 0030N., R 0980W., 6TH PM
Sec. 30: Lot 12;
Sec. 30: SESE;

The following lands are subject to Exhibit WR-CSU-05 to protect bald eagle roosts:

T. 0030N., R 0980W., 6TH PM
Sec. 30: Lot 10,12;
Sec. 30: SWNE,E2SE;

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:

T. 0030N., R 0980W., 6TH PM
Sec. 30: Lot 10,12;
Sec. 30: NE,NENW,E2SE;
Sec. 36: NENW,W2NW;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:

T. 0030N., R 0980W., 6TH PM
Sec. 30: Lot 10,12;
Sec. 30: SWNE;
Sec. 36: NENE;

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The following lands are subject to Exhibit WR-NSO-05 to protect bald eagle roosts:

T. 0030N., R 0980W., 6TH PM
Sec. 30: Lot 12;
Sec. 30: E2SE;

The following lands are subject to Exhibit WR-TL-01 to protect the nests of threatened, endangered, or candidate raptors:

T. 0030N., R 0980W., 6TH PM
Sec. 30: Lot 10,12;
Sec. 30: S2NE,E2SE;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:

T. 0030N., R 0980W., 6TH PM
Sec. 30: Lot 10,12;
Sec. 30: S2NE,NESE;
Sec. 36: NE;

The following lands are subject to Exhibit WR-TL-05 to protect bald eagle winter roosts and concentration areas:

T. 0030N., R 0980W., 6TH PM
Sec. 30: Lot 10,12;
Sec. 30: S2NE,E2SE;

The following lands are subject to Exhibit WR-TL-08 to protect big game severe winter range:

T. 0030N., R 0980W., 6TH PM
Sec. 30: Lot 10,12;
Sec. 30: NE,NENW,E2SE;
Sec. 36: N2;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:

T. 0030N., R 0980W., 6TH PM
Sec. 30: Lot 10,12;
Sec. 30: NE,NENW,E2SE;
Sec. 36: N2NW;

BLM; CDO: WRRA

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PARCEL ID: 6188 SERIAL #:

T. 0030N., R 0980W., 6TH PM
Sec. 8: ALL;
Sec. 9: Lot 1,3;
Sec. 9: N2,N2S2,SWSW;
Sec. 15: Lot 1,6,7,11,13;
Sec. 15: NE;
Sec. 16: Lot 4,5,12,13,16,18;
Sec. 16: W2W2;
Sec. 17: ALL;

Moffat County
Colorado 2398.870 Acres

All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

All lands are subject to Exhibit CO-39 to protect cultural resources.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:

T. 0030N., R 0980W., 6TH PM
Sec. 8: NESW,W2SW;
Sec. 8: NENE,W2NE,NW;
Sec. 9: Lot 1;
Sec. 9: NENE,NENW,NESW,W2SW;
Sec. 16: Lot 13;
Sec. 16: NWNW,SWSW;
Sec. 17: W2NW,SENW,SW,E2;

The following lands are subject to Exhibit WR-CSU-03 to protect the Black-Footed Ferret Reintroduction Area:

T. 0030N., R 0980W., 6TH PM
Sec. 8: NWNW;

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:

T. 0030N., R 0980W., 6TH PM
Sec. 8: ALL;
Sec. 9: Lot 1,3;
Sec. 9: N2,SWSW,N2S2;
Sec. 15: Lot 1,6,7,11,13;
Sec. 15: NE;

DRAFT

Sec. 16: Lot 4,5,12,13,16,18;
Sec. 16: W2W2;
Sec. 17: ALL;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:

T. 0030N., R 0980W., 6TH PM
Sec. 8: NWNW;
Sec. 9: Lot 1;
Sec. 9: NESW,W2SW;

The following lands are subject to Exhibit WR-TL-03 to protect the nests of ferruginous hawks:

T. 0030N., R 0980W., 6TH PM
Sec. 8: W2,W2E2;
Sec. 17: NENW,W2NW;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:

T. 0030N., R 0980W., 6TH PM
Sec. 8: NESW,W2SW;
Sec. 8: NENW,W2NW;
Sec. 9: Lot 1,3;
Sec. 9: SWNE,S2NW,NWSE;

The following lands are subject to Exhibit WR-TL-08 to protect big game severe winter range:

T. 0030N., R 0980W., 6TH PM
Sec. 8: W2,W2E2;
Sec. 17: W2,S2SE;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:

T. 0030N., R 0980W., 6TH PM
Sec. 8: ALL;
Sec. 9: Lot 1,3;
Sec. 9: N2,SWSW,N2S2;
Sec. 15: Lot 1,6,7,11,13;
Sec. 15: NE;
Sec. 16: Lot 4,5,12,13,16,18;
Sec. 16: W2W2;
Sec. 17: ALL;

BLM; CDO: WRRA

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Attachment B
Parcels Available for Lease with Deferred Portions
May 2012 – Colorado Competitive Oil and Gas Lease Sale

PARCEL ID: 6063 SERIAL #:
AVAILABLE PORTION: ALL
T. 0010S., R 1030W., 6TH PM
Sec. 10: S2NE,SE;
Sec. 14: S2;
Sec. 25: ALL;
Sec. 26: ALL;
Sec. 35: E2,W2NW;
Sec. 36: E2;

Rio Blanco County
Colorado 2560.000 Acres
BLM; CDO: WRRA

DEFERRED PORTION: NONE

PARCEL ID: 6165 SERIAL #:
AVAILABLE PORTION: ALL
T. 0010S., R 1030W., 6TH PM
Sec. 28: ALL;
Sec. 29: ALL;
Sec. 32: N2,SE;
Sec. 33: ALL;

Rio Blanco County
Colorado 2400.000 Acres
BLM; CDO: LSRA

DEFERRED PORTION: NONE

PARCEL ID: 6053 SERIAL #:
AVAILABLE PORTION:
T. 0020N., R 0920W., 6TH PM
Sec. 5: Lot 3,4;
Sec. 5: S2NW;
Sec. 6: Lot 1-3;
Sec. 6: S2NE,SENW,E2SW;
Sec. 7: E2NW,NESW,N2SE,SESE;
Sec. 18: Lot 8,9;

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Sec. 18: W2SE;

Rio Blanco County
Colorado 1123.43 Acres

PVT/BLM;BLM; CDO: WRRA

DEFERRED PORTION:
Jensen State Wildlife Area and associated wildlife and recreational values
T. 0020N., R 0920W., 6TH PM
Sec. 18: Lots 1,2,3,4, E2SW;

Rio Blanco County
Colorado 223.32 Acres

PVT; CDO: WRRA

PARCEL ID: 6153 SERIAL #:
AVAILABLE PORTION: ALL
T. 0020N., R 0920W., 6TH PM
Sec. 4: Lot 10;
Sec. 4: SWSE;
Sec. 5: SW;
Sec. 8: NW,W2SW;
Sec. 9: N2N2,S2S2;
Sec. 16: ALL;
Sec. 17: E2,N2NW;

Rio Blanco County
Colorado 1838.79 Acres

DEFERRED PORTION: NONE

PARCEL ID: 6169 SERIAL #:
AVAILABLE PORTION: ALL
T. 0020N., R 0920W., 6TH PM
Sec. 21: NE,E2W2,N2SE,SWSE;
Sec. 28: Lot 8,10;
Sec. 28: E2NW;
Sec. 29: Lot 5,6,9,18, 19;
Sec. 29: NWSW;
Sec. 30: Lot 2,3,5;

Rio Blanco County

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Colorado 766.640 Acres
PVT/BLM; CDO: WRRA

DEFERRED PORTION: NONE

PARCEL ID: 6166 SERIAL #:
AVAILABLE PORTION:
T. 0030N., R 0920W., 6TH PM
Sec. 19: Lot 1-4;
Sec. 19: E2;
Sec. 20: SWNW,W2SW;
Sec. 29: W2W2,SESW;
Sec. 30: Lot 1
Sec. 30: E2;
Sec. 31: E2;
Sec. 32: Lot 3,5,6,10,11;
Sec. 32: SWNE,W2SE,W2;

Rio Blanco County
Colorado 2086.32 Acres
PVT/BLM;BLM; CDO: WRRA

DEFERRED PORTION:
Jensen State Wildlife Area and associated wildlife and recreational values
T. 0030N., R 0920W., 6TH PM
Sec. 30: Lot 2,3,4;
Sec. 31: Lot 1,2,3,4;

Rio Blanco County
Colorado 296.92 Acres
PVT; CDO: WRRA

PARCEL ID: 6167 SERIAL #:
AVAILABLE PORTION: ALL
T. 0030N., R 0920W., 6TH PM
Sec. 20: E2SE;
Sec. 28: Lot 26,27;
Sec. 29: E2NE;

Rio Blanco County
Colorado 224.440 Acres
PVT/BLM;BLM; CDO: WRRA

DEFERRED PORTION: NONE

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PARCEL ID: 6057 SERIAL #:
AVAILABLE PORTION:
T. 0020N., R 0930W., 6TH PM
Sec. 3: Lot 3, 4;
Sec. 3: S2NW,SW;
Sec. 4: Lot 24;
Sec. 4: SESE;

Rio Blanco County
Colorado 399.12 Acres

PVT/BLM; CDO: WRRA

DEFERRED PORTION:
Jensen State Wildlife Area and associated wildlife and recreational values
T. 0020N., R 0930W., 6TH PM
Sec. 2: Lots 1-4;
Sec. 2: S2N2, S2;
Sec. 3: Lot 1, 2;
Sec. 3: S2NE, SE;

Rio Blanco County
Colorado 958.62 Acres

PVT; CDO: WRRA

PARCEL ID: 6058 SERIAL #:
AVAILABLE PORTION:
T. 0020N., R 0930W., 6TH PM
Sec. 9: Lot 5;
Sec. 9: NW,N2SW,SESW,NWSE;
Sec. 10: Lot 1,4,5,16;
Sec. 10: NENW;

Rio Blanco County
Colorado 492.04 Acres
PVT/BLM; CDO: WRRA

DEFERRED PORTION:
Jensen State Wildlife Area and associated wildlife and recreational values
T. 0020N., R 0930W., 6TH PM
Sec. 10: Lot 27,29;
Sec. 11: E2;
Sec. 12: W2NW, SW;

Rio Blanco County

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Colorado 616.52 Acres
PVT; CDO: WRRA

PARCEL ID: 6168 SERIAL #:
AVAILABLE PORTION: ALL
T. 0030N., R 0930W., 6TH PM
Sec. 23: ALL;
Sec. 24: Lot 1-4;
Sec. 24: W2E2,W2;
Sec. 26: ALL;
Sec. 27: Lot 1;
Sec. 27: E2NW,SWNW,SW,E2SE;

Rio Blanco County
Colorado 2322.340 Acres
PVT/BLM; CDO: WRRA

DEFERRED PORTION: NONE

PARCEL ID: 6170 SERIAL #:
AVAILABLE PORTION:
T. 0030N., R 0930W., 6TH PM
Sec. 25: W2, N2NE;;
Sec. 34: Lot 1,4;
Sec. 34: E2,E2NW,SW;
Sec. 35: ALL;
Sec. 36: W2, N2SE, SWSE;

Rio Blanco County
Colorado 2119.08 Acres
PVT/BLM; CDO: WRRA

DEFERRED PORTION:
Jensen State Wildlife Area and associated wildlife and recreational values
T. 0030N., R 0930W., 6TH PM
Sec. 25: SE,SWNE,SENE;
Sec. 36: NE,SESE;

Rio Blanco County
Colorado 440 Acres
PVT; CDO: WRRA

PARCEL ID: 6210 SERIAL #:
AVAILABLE PORTION: ALL

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T.0030N., R. 0930W., 6th PM
Sec. 22: Lot 14,20,22;
Sec. 33: Lot 12,13,16,24,26;

Moffat County
Colorado 224.730 Acres
BLM; CDO: LSRA

DEFERRED PORTION: NONE

PARCEL ID: 6176 SERIAL #:
AVAILABLE PORTION: ALL
T. 0030N., R 0950W., 6TH PM
Sec. 2: SW;
Sec. 3: SESW;
Sec. 4: Lot 6;
Sec. 10: Lot 8;
Sec. 10: NW,S2SE,SENE;
Sec. 11: NW,S2;

Moffatt County
Colorado 1019.790 Acres
BLM; CDO: WRRA

DEFERRED PORTION: NONE

PARCEL ID: 6173 SERIAL #:
AVAILABLE PORTION: ALL
T. 0040N., R 0950W., 6TH PM
Sec. 8: Lot 5,6,8,10,12,25;
Sec. 17: SW;
Sec. 18: NE, E2W2, NESE;
Sec. 18: W2SE, SESE;
Sec. 19: NE,E2NW,E2SE;
Sec. 20: S2NW, S2;
Sec. 20: NE, N2NW;
Sec. 28: SWNW,NWSW,S2SW;
Sec. 33: W2, SE;
Sec. 33: NE;

Moffat County
Colorado 2546.510 Acres
PVT/BLM; CDO: LSRA

DEFERRED PORTION: NONE

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PARCEL ID: 5967 SERIAL #:
AVAILABLE PORTION: ALL
T. 0020N., R 0960W., 6TH PM
Sec. 3: Lot 5-8;
Sec. 3: SENE,SWNW,SESW,SE;

Rio Blanco County
Colorado 363.800 Acres
BLM; CDO: WRRA

DEFERRED PORTION: NONE

PARCEL ID: 6172 SERIAL #:
AVAILABLE PORTION: NONE

DEFERRED PORTION: ALL
Occupied nesting and wintering greater sage-grouse habitat; Potentially containing lands with wilderness characteristics

T. 0030N., R 0970W., 6TH PM
Sec. 25: N2NE,SENE,NESE,SWSE;
Sec. 27: N2,SW,W2SE;

Rio Blanco County
Colorado 760 Acres
BLM; CDO: WRRA

PARCEL ID: 6177 SERIAL #:
AVAILABLE PORTION: ALL
T. 0030N., R 0980W., 6TH PM
Sec. 18: Lot 5-8;
Sec. 18: E2,E2W2;
Sec. 25: ALL;
Sec. 28: ALL;
Sec. 29: ALL;

Moffat County / Rio Blanco County
Colorado 2533.920 Acres
BLM; CDO: WRRA

DEFERRED PORTION: NONE

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PARCEL ID: 6187 SERIAL #:
AVAILABLE PORTION:
T. 0030N., R 0980W., 6TH PM
Sec. 30: NE,NENW;
Sec. 36: N2;

Rio Blanco County
Colorado 520 Acres
BLM; CDO: WRRA

DEFERRED PORTION:
Occupied nesting and wintering greater sage-grouse habitat
T. 0030N., R 0980W., 6TH PM
Sec. 30: Lot 10,12, E2SE;

Rio Blanco County
Colorado 150.10 Acres
BLM; CDO: WRRA

PARCEL ID: 6188 SERIAL #:
AVAILABLE PORTION: ALL
T. 0030N., R 0980W., 6TH PM
Sec. 8: ALL;
Sec. 9: Lot 1,3;
Sec. 9: N2,N2S2,SWSW;
Sec. 15: Lot 1,6,7,11,13;
Sec. 15: NE;
Sec. 16: Lot 4,5,12,13,16,18;
Sec. 16: W2W2;
Sec. 17: ALL;

Moffat County
Colorado 2398.870 Acres
BLM; CDO: WRRA
DEFERRED PORTION: NONE

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Attachment C
Parcels Available for Lease with Applied Stipulations
May 2012 – Colorado Competitive Oil and Gas Lease Sale

PARCEL ID: 6063 SERIAL #:

T. 0010S., R 1030W., 6TH PM
Sec. 10: S2NE,SE;
Sec. 14: S2;
Sec. 25: ALL;
Sec. 26: ALL;
Sec. 35: E2,W2NW;
Sec. 36: E2;

Rio Blanco County
Colorado 2560.000 Acres

All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

All lands are subject to Exhibit CO-39 to protect cultural resources.

All lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:

T. 0010S., R 1030W., 6TH PM
Sec. 10: SENE,SE;
Sec. 14: S2;
Sec. 25: S2NW,NENW,S2NE,S2SW,NWSE;
Sec. 26: NENW,NE,SESE;
Sec. 35: N2SE, SWSE;

The following lands are subject to Exhibit WR-NSO-01 to protect potential landslide areas:

T. 0010S., R 1030W., 6TH PM
Sec. 10: N2SE;
Sec. 14: N2SW,SESW, S2SE,NESE;
Sec. 25: SENE;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:

T. 0010S., R 1030W., 6TH PM

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Sec. 25: SE, W2NE, SENE, E2NW, NESW;
Sec 26: SESW, SWSE;
Sec 35: W2NE,NWNW;

The following lands are subject to Exhibit WR-NSO-03 to protect raptors:

T. 0010S., R 1030W., 6TH PM
Sec. 25: SWNE, SENW, E2SE;
Sec 26: SESW, SWSE;
Sec 35: NWNE;

The following lands are subject to Exhibit WR-TL-08 to protect big game severe winter range:

T. 0010S., R 1030W., 6TH PM
Sec. 10: S2NE,SE;
Sec. 14: S2;
Sec. 25: ALL;
Sec. 26: ALL;
Sec. 35: E2,W2NW;
Sec. 36: E2;

BLM; CDO: WRRA

PARCEL ID: 6165 SERIAL #:

T. 0010S., R 1030W., 6TH PM
Sec. 28: ALL;
Sec. 29: ALL;
Sec. 32: N2,SE;
Sec. 33: ALL;

Rio Blanco County
Colorado 2400.000 Acres

All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

All lands are subject to Exhibit CO-39 to protect cultural resources.

All lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:

T. 0010S., R 1030W., 6TH PM

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Sec. 28: SWNW,SWSE;
Sec. 29: N2NW,SWNW,N2NE,NESW,S2SE,NESE;
Sec. 32: E2NW,NWNE,SE;
Sec. 33: N2NW,SWNW,SENE,NWSW,SESW,N2SE,SESE;

The following lands are subject to Exhibit WR-NSO-01 to protect potential landslide areas:

T. 0010S., R 1030W., 6TH PM
Sec. 29: SENE,W2SW,W2SE;
Sec. 32: W2NW,E2NE,S2SE;
Sec. 33: SWSW,SWSE;

The following lands are subject to Exhibit WR-TL-08 to protect big game severe winter range:

T. 0010S., R 1030W., 6TH PM
Sec. 28: All;
Sec. 29: N2, E2SE;
Sec. 33: All;

BLM; CDO: LSRA

PARCEL ID: 6053 SERIAL #:

T. 0020N., R 0920W., 6TH PM
Sec. 5: Lot 3,4;
Sec. 5: S2NW;
Sec. 6: Lot 1-3;
Sec. 6: S2NE,SENW,E2SW;
Sec. 7: E2NW,NESW,N2SE,SESE;
Sec. 18: Lot 8,9;
Sec. 18: W2SE;

Rio Blanco County
Colorado 900.11 Acres

All lands are subject to Exhibit CO-39 to protect cultural resources.

All lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:

T. 0020N., R 0920W., 6TH PM
Sec. 6: Lot 1;

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The following lands are subject to Exhibit WR-NSO-01 to protect potential landslide areas:

T. 0020N., R 0920W., 6TH PM
Sec. 5: Lot 3,4;
Sec. 5: S2NW;
Sec. 6: Lot 2-3;
Sec. 6: SENW,S2NE,E2SW;
Sec. 7: E2NW,E2SE;
Sec. 18: Lot 8,9;
Sec. 18: W2SE;

The following lands are subject to Exhibit WR-NSO-03 to protect raptors:
T. 0020N., R 0920W., 6TH PM
Sec. 6: Lot1,2;
Sec. 18: Lot 8
Sec. 18: W2SE

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T. 0020N., R 0920W., 6TH PM
Sec. 6: Lot 1,2,3;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:
T. 0020N., R 0920W., 6TH PM
Sec. 5: Lot 3,4;
Sec. 5: S2NW;
Sec. 6: Lot 1-3;
Sec. 6: S2NE,SENW,E2SW;
Sec. 7: E2NW,NESW,N2SE,SESE;
Sec. 18: Lot8,9;
Sec. 18: W2SE;

PVT/BLM;BLM; CDO: WRRA

PARCEL ID: 6153 SERIAL #:

T. 0020N., R 0920W., 6TH PM
Sec. 4: Lot 10;
Sec. 4: SWSE;
Sec. 5: SW;
Sec. 8: NW,W2SW;
Sec. 9: N2N2,S2S2;
Sec. 16: ALL;
Sec. 17: E2,N2NW;

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Rio Blanco County
Colorado 1838.79 Acres

All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

All lands are subject to Exhibit CO-39 to protect cultural resources.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:

T. 0020N., R 0920W., 6TH PM
Sec. 4: Lot 10;
Sec. 8: SENW;
Sec. 9: S2SE,NWNW;
Sec. 16: S2NW, NWNW,N2NE,SWNE,W2SE;
Sec. 17: N2NE,SENE,S2SE;

The following lands are subject to Exhibit WR-NSO-01 to protect potential landslide areas:

T. 0020N., R 0920W., 6TH PM
Sec 5: SW;
Sec 8: N2NW,SWNW,W2SW;
Sec. 9: S2SW,SESE;
Sec. 16: N2NW,SWNW,S2NE,SENE;
Sec. 17: NWNW;

All lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values.

The following lands are subject to Exhibit WR-TL-04 to protect raptors:

T. 0020N., R 0920W., 6TH PM
Sec. 5: S2SW;
Sec. 8: NW;

The following lands are subject to Exhibit WR-TL-07 to protect elk production areas:

T. 0020N., R 0920W., 6TH PM
Sec. 16: SE;
Sec. 16: SWNE,E2NE;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:

T. 0020N., R 0920W., 6TH PM
Sec. 4: Lot 10;

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Sec. 4: SWSE;
Sec. 5: SW;
Sec. 8: NW,W2SW;
Sec. 9: N2N2,S2S2;
Sec. 16: ALL;
Sec. 17: E2,N2NW;

PVT/BLM; CDO: WRRA

PARCEL ID: 6169 SERIAL #:

T. 0020N., R 0920W., 6TH PM
Sec. 21: NE,E2W2,N2SE,SWSE;
Sec. 28: Lot 8,10;
Sec. 28: E2NW;
Sec. 29: Lot 5, 6, 9, 18, 19;
Sec. 29: NWSW;
Sec. 30: Lot 2,3,5;

Rio Blanco County
Colorado 766.640 Acres

All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

All lands are subject to Exhibit CO-39 to protect cultural resources.

All lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:

T. 0020N., R 0920W., 6TH PM
Sec. 28: Lot 8;

The following lands are subject to Exhibit WR-NSO-01 to protect potential landslide areas:

T. 0020N., R 0920W., 6TH PM
Sec. 21: NENW,E2SW,N2SE,SWSE;
Sec. 28: E2NW
Sec. 29: Lot 5,6,18;
Sec. 29: NWSW
Sec. 30: Lot 2,3,5;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:

T. 0020N., R 0920W., 6TH PM
Sec. 21: NESE,W2SE;
Sec. 29: Lot 5;
Sec. 30: Lot 5;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:

T. 0020N., R 0920W., 6TH PM
Sec. 21: E2SW,NESE,W2SE;
Sec. 28: Lot 8;
Sec. 28: E2NW;
Sec. 29: Lot 5;
Sec. 30: Lot 2,3,5;

The following lands are subject to Exhibit WR-TL-07 to protect elk production areas:

T. 0020N., R 0920W., 6TH PM
Sec. 21: NENE;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:

T. 0020N., R 0920W., 6TH PM
Sec. 21: NE,E2W2,N2SE,SWSE;
Sec. 28: Lot 8,10;
Sec. 28: E2NW;
Sec. 29: Lot 5,6,9,18, 19;
Sec. 29: NWSW;
Sec. 30: Lot 2,3,5;

PVT/BLM; CDO: WRRA

PARCEL ID: 6166 SERIAL #:

T. 0030N., R 0920W., 6TH PM
Sec. 19: Lot 1-4;
Sec. 19: E2;
Sec. 20: SWNW,W2SW;
Sec. 29: W2W2,SESW;
Sec. 30: Lot 1;
Sec. 30: E2;
Sec. 31: E2;
Sec. 32: Lot 3,5,6,10,11;
Sec. 32: SWNE,W2SE,W2;

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Rio Blanco County
Colorado 2086.32 Acres

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:

T. 0030N., R 0920W., 6TH PM
Sec. 19: SWSE;
Sec. 20: SWSW;
Sec. 29: SESW;
Sec. 30: N2NE,SWNE,NESE,SWSE;
Sec. 31: SENE;
Sec. 32: SENW,SWSW,SENW;

The following lands are subject to Exhibit WR-NSO-01 to protect potential landslide areas:

T. 0030N., R 0920W., 6TH PM
Sec. 19: Lot 4;
Sec. 19: SWNE,SWSE;
Sec. 20: NWSW;
Sec. 29: NWNW,S2SW,NWSW;
Sec. 30: Lot 1;
Sec. 30: SESE;
Sec. 31: E2;
Sec. 32: Lot 3,5,6,10,11;
Sec. 32: N2NW,S2SW, NWSW,W2SE;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:

T. 0030N., R 0920W., 6TH PM
Sec. 29: W2SW;
Sec. 30: NWSE,SWSE;
Sec. 31: S2NE,NWSE;
Sec. 31: NESE, SESE, SWSE;
Sec. 31: NWNE
Sec. 32: SWNW,NWSW;

The following lands are subject to Exhibit WR-TL-04 to protect raptor nesting and fledgling habitat:

T. 0030N., R 0920W., 6TH PM
Sec. 20: SWSW;
Sec. 29: NWNW,W2SW, SESW;
Sec. 30: SE,SWNE;
Sec. 31: NWNE, W2SE,SESE;
Sec. 31: NESE;

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Sec. 32: W2W2;

All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

All lands are subject to Exhibit CO-39 to protect cultural resources.

All lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:

T. 0030N., R 0920W., 6TH PM
Sec. 19: SWSE;
Sec. 20: SWSW;
Sec. 29: SESW;
Sec. 30: Lot 3,N2NE,SWNE,NESE,SWSE;
Sec. 31: SENE;
Sec. 32: SENW,SWSW,SENW;

The following lands are subject to Exhibit WR-NSO-01 to protect potential landslide areas:

T. 0030N., R 0920W., 6TH PM
Sec. 19: Lot 4;
Sec. 19: SWNE,SWSE;
Sec. 20: NWSW;
Sec. 29: NWNW,S2SW,NWSW;
Sec. 30: Lot 1;
Sec. 30: SESE;
Sec. 31: E2;
Sec. 32: Lot 3,5,6,10,11;
Sec. 32: N2NW,S2SW, W2SE;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:

T. 0030N., R 0920W., 6TH PM
Sec. 19: Lot 1-4;
Sec. 19: E2;
Sec. 20: SWNW,W2SW;
Sec. 29: W2W2,SESW;
Sec. 30: Lot 1;
Sec. 30: E2;
Sec. 31: E2;
Sec. 32: Lot 3,5,6,10,11;
Sec. 32: SWNE,W2SE,W2;

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PVT/BLM;BLM; CDO: WRRA

PARCEL ID: 6167 SERIAL #:

T. 0030N., R 0920W., 6TH PM
Sec. 20: E2SE;
Sec. 28: Lot 26,27;
Sec. 29: E2NE;

Rio Blanco County
Colorado 224.440 Acres

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:

T. 0030N., R 0920W., 6TH PM
Sec. 28: Lot 26;
Sec. 29: SENE;

The following lands are subject to Exhibit WR-TL-04 to protect raptor nesting and fledgling habitat:

T. 0030N., R 0920W., 6TH PM
Sec. 28: Lot 26,27;
Sec. 29: SENE;

All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

All lands are subject to Exhibit CO-39 to protect cultural resources.

All lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:

T. 0030N., R 0920W., 6TH PM
Sec. 28: Lot 26,27;

The following lands are subject to Exhibit WR-NSO-01 to protect potential landslide areas:

T. 0030N., R 0920W., 6TH PM
Sec. 20: E2SE;
Sec. 28: Lot 26,27;
Sec. 29: E2NE;

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The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:

T. 0030N., R 0920W., 6TH PM
Sec. 20: E2SE;
Sec. 28: Lot 26,27;
Sec. 29: E2NE;

PVT/BLM;BLM; CDO: WRRA

PARCEL ID: 6057 SERIAL #:

T. 0020N., R 0930W., 6TH PM
Sec. 3: Lot 3,4;
Sec. 3: S2NW,SW;
Sec. 4: Lot 24;
Sec. 4: SESE;

Rio Blanco County
Colorado 399.12 Acres

All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

All lands are subject to Exhibit CO-39 to protect cultural resources.

All lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values.

The following lands are subject to Exhibit WR-NSO-01 to protect potential landslide areas:

T. 0020N., R 0930W., 6TH PM
Sec. 3: Lot 3;
Sec. 3: S2NW, NESW,SWSW;
Sec. 4: Lot 24;
Sec. 4: SESE;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:

T. 0020N., R 0930W., 6TH PM
Sec. 3: Lot 3;
Sec. 3: SENW,NESW,W2SW, NESE;
Sec. 4: Lot 24;
Sec. 4: SESE;

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The following lands are subject to Exhibit WR-TL-04 to protect raptors:

T. 0020N., R 0930W., 6TH PM
Sec. 3: Lot 3,4;
Sec. 3: S2NW,SW;
Sec. 4: Lot 24;
Sec. 4: SESE;

The following lands are subject to Exhibit WR-TL-07 to protect elk production areas:

T. 0020N., R 0930W., 6TH PM
Sec. 3: Lot 3,4;
Sec. 3: S2NW,SW;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:

T. 0020N., R 0930W., 6TH PM
Sec. 3: Lot 3, 4;
Sec. 3: S2NW, SW;;
Sec. 4: Lot 24;
Sec. 4: SESE;

PVT/BLM; CDO: WRRA

PARCEL ID: 6058 SERIAL #:

T. 0020N., R 0930W., 6TH PM
Sec. 9: Lot 5;
Sec. 9: NW,N2SW,SESW,NWSE;
Sec. 10: Lot 1,4,5,16,
Sec. 10: NENW;
Sec. 12: W2NW,SW;

Rio Blanco County
Colorado 492.04 Acres

All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

All lands are subject to Exhibit CO-39 to protect cultural resources.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:

T. 0020N., R 0930W., 6TH PM
Sec. 9: E2SW

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Sec. 10: Lot 4,16;

The following lands are subject to Exhibit WR-NSO-01 to protect potential landslide areas:

T. 0020N., R 0930W., 6TH PM
Sec. 9: Lot 5;
Sec. 9: NW;
Sec. 10: Lot 1;

All lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values.

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:

T. 0020N., R 0930W., 6TH PM
Sec. 9: Lot 5;
Sec. 9: SWNW,E2NW,NWSE,NWNW,NESW;
Sec. 10: Lot 5,16;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:

T. 0020N., R 0930W., 6TH PM
Sec. 9: Lot 5;
Sec. 9: NW,NWSE,N2SW;
Sec. 10: Lot 5,16,27,29;

The following lands are subject to Exhibit WR-TL-07 to protect elk production areas:

T. 0020N., R 0930W., 6TH PM
Sec. 9: W2NW;
Sec. 10: Lot 29;
Sec. 10: Lot 1,5;
Sec. 10: NENW;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:

T. 0020N., R 0930W., 6TH PM
Sec. 9: Lot 5;
Sec. 9: NW,N2SW,SESW,NWSE;
Sec. 10: Lot 1,4,5,16,27,29;
Sec. 10: NENW;

PVT/BLM; CDO: WRRA

PARCEL ID: 6168 SERIAL #:

T. 0030N., R 0930W., 6TH PM
Sec. 23: ALL;
Sec. 24: Lot 1-4;
Sec. 24: W2E2,W2;
Sec. 26: ALL;
Sec. 27: Lot 1;
Sec. 27: E2NW,SWNW,SW,E2SE;

Rio Blanco County
Colorado 2322.340 Acres

All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

All lands are subject to Exhibit CO-39 to protect cultural resources.

All lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:

T. 0030N., R 0930W., 6TH PM
Sec. 23: NESE,SENE,SWSE,SWSW;
Sec. 24: Lot 3,NWSW,SESW;
Sec. 26: NESW,SENE,SENW,SESE
Sec. 27: Lot 1,SWSW;

The following lands are subject to Exhibit WR-NSO-01 to protect potential landslide areas:

T. 0030N., R 0930W., 6TH PM
Sec. 26: W2NW,SW;
Sec. 27: E2NW, E2SW,NESE;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:

T. 0030N., R 0930W., 6TH PM
Sec. 26: SE, W2SW, W2NW, S2NE, NWNE;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:

T. 0030N., R 0930W., 6TH PM
Sec. 26: SW,SE, N2;
Sec. 27: E2SE

The following lands are subject to Exhibit WR-TL-07 to protect elk production areas:

T. 0030N., R 0930W., 6TH PM
Sec. 27: E2SW,SESE;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:

T. 0030N., R 0930W., 6TH PM
Sec. 23: All;
Sec. 24: All;
Sec. 26: All;
Sec. 27: W2, E2SE;

PVT/BLM; CDO: WRRA

PARCEL ID: 6170 SERIAL #:

T. 0030N., R 0930W., 6TH PM
Sec. 25: ALL;
Sec. 34: Lot 1,4;
Sec. 34: E2,E2NW,SW;
Sec. 35: ALL;
Sec. 36: W2, N2SE, SWSE;

Rio Blanco County
Colorado 2119.08 Acres

All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

All lands are subject to Exhibit CO-39 to protect cultural resources.

All lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:

T. 0030N., R 0930W., 6TH PM
Sec. 25: SWNW,N2NE,N2SW,SWSW;
Sec. 34: Lot 4;
Sec. 35: N2NE,SWNE;

The following lands are subject to Exhibit WR-NSO-01 to protect potential landslide areas:

T. 0030N., R 0930W., 6TH PM
Sec. 25: SENE,SE;

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Sec. 34: Lot 1;
Sec. 34: E2NW,NE,SW,N2SE,SWSE;
Sec. 35: NENW,SW,SWSE;
Sec. 36: NENW,S2NW, SW, SWSE, N2SE;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:

T. 0030N., R 0930W., 6TH PM
Sec. 25: S2SW, NW;
Sec. 34: NWSW, S2SW,E2SE;
Sec. 35: NE,E2SE,W2SW,NWSE, E2NW,NESW;
Sec. 36: W2,NESE,W2SE,SWNE;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:

T. 0030N., R 0930W., 6TH PM
Sec. 25: W2,E2SE,SENE;
Sec. 34: Lot 4;
Sec. 34: S2,S2NE;
Sec. 35: NE,SW, NW,E2SE,NWSE
Sec. 36: W2, N2Se, SWSE;

The following lands are subject to Exhibit WR-TL-07 to protect elk production areas:

T. 0030N., R 0930W., 6TH PM
Sec. 34: Lot 4;
Sec. 34: E2NW,E2,SW;
Sec. 35: ALL;
Sec. 36: SW,S2NW,W2SE;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:

T. 0030N., R 0930W., 6TH PM
Sec. 25: W2, N2NE;
Sec. 34: Lot 1,4;
Sec. 34: E2,E2NW,SW;;
Sec. 35: ALL;
Sec. 36: W2, N2SE, SWSE;

PVT/BLM; CDO: WRRA

PARCEL ID: 6210 SERIAL #:

T.0030N., R. 0930W., 6th PM
Sec. 22: Lot 14,20,22;

Sec. 33: Lot 12,13,16,24,26;

Moffat County
Colorado 224.730 Acres

All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

All lands are subject to Exhibit CO-39 to protect cultural resources.

All lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:

T.0030N., R. 0930W., 6th PM
Sec. 22: 20;

The following lands are subject to Exhibit WR-NSO-01 to protect potential landslide areas:

T.0030N., R. 0930W., 6th PM
Sec. 22: Lot 14, 22;
Sec. 33: Lot 12,13,16,24,26;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:

T. 0030N., R 0930W., 6TH PM
Sec. 33: Lot 13,16,24,26;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:

T. 0030N., R 0930W., 6TH PM
Sec. 33: Lot 13,16,24,26;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:

T. 0030N., R 0930W., 6TH PM
Sec. 33: Lot 12,13,16,24,26;
Sec. 22: Lot 14, 20, 22;

BLM; CDO: LSRA

PARCEL ID: 6176 SERIAL #:

T. 0030N., R 0950W., 6TH PM

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Sec. 2: SW;
Sec. 3: SESW;
Sec. 4: Lot 6;
Sec. 10: Lot 8;
Sec. 10: NW,S2SE,SENE;
Sec. 11: NW,S2;

Moffat County
Colorado 1019.790 Acres

All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

All lands are subject to Exhibit CO-39 to protect cultural resources.

All lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:

T. 0030N., R 0950W., 6TH PM
Sec. 2 NESW;
Sec. 10: Lot 8,N2NW,SENW,S2SE;

The following lands are subject to Exhibit WR-NSO-01 to protect potential landslide areas:

T. 0030N., R 0950W., 6TH PM
Sec. 2: NWSW;
Sec. 3: SESW;
Sec. 10: SENE,SESE;
Sec. 11: NENW,S2NW,SW,NESE,S2SE;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:

T. 0030N., R 0950W., 6TH PM
Sec. 10: SESE;
Sec. 11: SWSW;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:

T. 0030N., R 0950W., 6TH PM
Sec. 3: SESW;
Sec. 10: S2SE;
Sec. 11: SWSW;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:

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T. 0030N., R 0950W., 6TH PM
Sec. 2: SW;
Sec. 3: SESW;
Sec. 4: Lot 6;
Sec. 10: Lot 8;
Sec. 10: NW,S2SE,SENE;
Sec. 11: NW,S2;

BLM; CDO: WRRA

PARCEL ID: 6173 SERIAL #:

T. 0040N., R 0950W., 6TH PM
Sec. 8: Lot 5,6,8,10,12,25;
Sec. 17: SW;
Sec. 18: NE,E2W2,NESE;
Sec. 18: W2SE,SESE;
Sec. 19: NE,E2NW,E2SE;
Sec. 20: S2NW,S2;
Sec. 20: NE,N2NW;
Sec. 28: SWNW,NWSW,S2SW;
Sec. 33: W2,SE;
Sec. 33: NE;

Moffat County
Colorado 2546.510 Acres

The following lands are subject to Exhibit CO-28 to protect riparian/wetland vegetation:

T. 0040N., R 0950W., 6TH PM
Sec. 8: Lot 5,6,8,10,12,25;
Sec. 17: N2SW;
Sec. 18: NE, E2NW, NESE, NESW
Sec. 20: N2NE; SENE;
Sec. 33: NENE

The following lands are subject to Exhibit LS RMP No Surface Occupancy Stipulation to protect perennial water sources:

T. 0040N., R 0950W., 6TH PM
Sec. 8: Lot 5,6,8,10,12,25;
Sec. 17: N2SW;
Sec. 18: NE, E2NW, NESE, NESW
Sec. 20: N2NE; SENE;

DRAFT

Sec. 33: NENE

All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

All lands are subject to Exhibit CO-39 to protect cultural resources.

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:

T. 0040N., R 0950W., 6TH PM

Sec. 17: S2SW;
Sec. 18: S2SE, NWSE, SESW;
Sec. 19: NE,E2NW,E2SE;
Sec. 20: S2NW,S2;
Sec. 20: SWNE,N2NW;
Sec. 28: SWNW,NWSW,S2SW;
Sec. 33: W2,SE;
Sec. 33: S2NE; NWNE

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:

T. 0040N., R 0950W., 6TH PM
Sec. 18: SESW;
Sec. 19: NENW,SENW,E2SE;
Sec. 20: N2SE,SWNE;
Sec. 33: NESE,SENE,SESE;

The following lands are subject to Exhibit LS RMP Controlled Surface Use Stipulation to protect slopes greater than 35 percent.

T. 0040N., R 0950W., 6TH PM
Sec. 8: Lot 5,6,8,10,12,25;
Sec. 17: N2SW;
Sec. 18: NE, E2NW, NESE, NESW
Sec. 20: N2NE, SENE;
Sec. 33: NENE

The following lands are subject to Exhibit LS RMP Controlled Surface Use Stipulation to protect fragile soils.

T. 0040N., R 0950W., 6TH PM
Sec. 8: Lot 5,6,8,10,12,25;
Sec. 17: N2SW;

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Sec. 18: NE, E2NW, NESE, NESW
Sec. 20: N2NE; SENE;
Sec. 33: NENE

The following lands are subject to Exhibit WR-NSO-01 to protect potential landslide areas:

T. 0040N., R 0950W., 6TH PM
Sec. 18: SWSE;
Sec. 19: NE,E2SE;
Sec. 20: W2,S2SE;
Sec. 28: SWNW,S2SW,NWSW;
Sec. 33: NW,SWNE,SW,W2SE;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:

T. 0040N., R 0950W., 6TH PM
Sec. 20: SESW,SWSE, SESE;
Sec. 33: E2SW,W2SE;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:

T. 0040N., R 0950W., 6TH PM
Sec. 20: S2;
Sec. 33: NWNW,SENW,SW,W2SE, SWNW;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:

T. 0040N., R 0950W., 6TH PM
Sec. 18: SESE, SWSE, SESW, NWSE,SWNE;
Sec. 19: NE,E2NW,E2SE;
Sec. 20: W2, SE, SWNE;
Sec. 28: S2SW, NWSW, SWNW;
Sec. 33: W2, SE, S2NE, NWNE;

The following lands are subject to LSFO-RMP (October 2011) – Timing Limitation to protect wintering big game species. Crucial winter habitat will be closed to surface disturbing activities from December 1 to April 30th.

T. 0040N., R 0950W., 6TH PM
Sec. 8: Lot 6

PVT/BLM; CDO: LSRA

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PARCEL ID: 5967 SERIAL #:

T. 0020N., R 0960W., 6TH PM
Sec. 3: Lot 5-8;
Sec. 3: SENE,SWNW,SESW,SE;

Rio Blanco County
Colorado 363.800 Acres

All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

All lands are subject to Exhibit CO-39 to protect cultural resources.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:

T. 0020N., R 0960W., 6TH PM
Sec. 3: Lot 6,SWSE;

The following lands are subject to Exhibit WR-NSO-01 to protect potential landslide areas:

T. 0020N., R 0960W., 6TH PM
Sec. 3: Lot 5-8;
Sec. 3: SWNW,SENE,SESW,SE;

All lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values.

The following lands are subject to Exhibit WR-TL-04 to protect raptors:

T. 0020N., R 0960W., 6TH PM
Sec. 3: SESW;

BLM; CDO: WRRA

PARCEL ID: 6177 SERIAL #:

T. 0030N., R 0980W., 6TH PM
Sec. 18: Lot 5-8;
Sec. 18: E2,E2W2;
Sec. 25: ALL;
Sec. 28: ALL;
Sec. 29: ALL;

Moffat County / Rio Blanco County

DRAFT

Colorado 2533.920 Acres

All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

All lands are subject to Exhibit CO-39 to protect cultural resources.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:

T. 0030N., R 0980W., 6TH PM
Sec. 17: NWSW
Sec. 18: SENW,S2NE,S2SE;
Sec. 25: S2NW,NENE,SWNE,NESW,N2SE,SWSE;
Sec. 28: SWNE;
Sec. 29: SWNW,NENE,NESE;

The following lands are subject to Exhibit WR-NSO-01 to protect potential landslide areas:

T. 0030N., R 0980W., 6TH PM
Sec. 17: NWNW
Sec. 18: Lot 5-8;
Sec. 18: N2NE,E2SW;
Sec. 25: SENE,W2SW,E2SE;
Sec. 28: W2,SENE,SE;
Sec. 29: N2NW,SENW,E2,SW;
Sec. 30: NE,E2SE;

All lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values.

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:

T. 0030N., R 0980W., 6TH PM
Sec. 18: Lot 6,7;
Sec. 25: SWNW,SESE,W2SW;

The following lands are subject to Exhibit WR-TL-01 to protect the nests of threatened, endangered, or candidate raptors:

T. 0030N., R 0980W., 6TH PM
Sec. 29: W2SW;

The following lands are subject to Exhibit WR-TL-03 to protect the nests of ferruginous hawks:

T. 0030N., R 0980W., 6TH PM
Sec. 18: Lot ALL;

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The following lands are subject to Exhibit WR-TL-04 to protect raptors:

T. 0030N., R 0980W., 6TH PM
Sec. 18: Lot 5,6,7;
Sec. 25: W2NW,S2SE,SW;

The following lands are subject to Exhibit WR-TL-05 to protect bald eagle winter roosts and concentration areas:

T. 0030N., R 0980W., 6TH PM
Sec. 29: W2SW;

The following lands are subject to Exhibit WR-TL-02 to protect the nests of bald eagles:
T. 0030N., R 0980W., 6TH PM
Sec. 29: W2SW;

The following lands are subject to Exhibit WR-TL-08 to protect big game severe winter range:

T. 0030N., R 0980W., 6TH PM
Sec. 18: Lot 5,6,7,8;
Sec. 18: E2W2,E2;
Sec. 25: ALL;
Sec. 28: ALL;
Sec. 29: ALL;

BLM; CDO: WRRA

PARCEL ID: 6187 SERIAL #:

T. 0030N., R 0980W., 6TH PM
Sec. 30: NE,NENW;
Sec. 36: N2;

Rio Blanco County
Colorado 520 Acres

All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

All lands are subject to Exhibit CO-39 to protect cultural resources.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:

T. 0030N., R 0980W., 6TH PM

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Sec. 36: SWNE;

The following lands are subject to Exhibit WR-NSO-01 to protect potential landslide areas:

T. 0030N., R 0980W., 6TH PM
Sec. 30: NENW,W2NE;
Sec. 36: NENW,SWNW;

The following lands are subject to Exhibit WR-CSU-05 to protect bald eagle roosts:

T. 0030N., R 0980W., 6TH PM
Sec. 30: SWNE;

All lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values.

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:

T. 0030N., R 0980W., 6TH PM
Sec. 30: SWNE;
Sec. 36: E2NE;

The following lands are subject to Exhibit WR-TL-01 to protect the nests of threatened, endangered, or candidate raptors:

T. 0030N., R 0980W., 6TH PM
Sec. 30: S2NE;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:

T. 0030N., R 0980W., 6TH PM
Sec. 30: S2NE;
Sec. 36: NE,NWNW;

The following lands are subject to Exhibit WR-TL-05 to protect bald eagle winter roosts and concentration areas:

T. 0030N., R 0980W., 6TH PM
Sec. 30: S2NE,

The following lands are subject to Exhibit WR-TL-02 to protect bald eagle nests:

T. 0030N., R 0980W., 6TH PM
Sec. 30: SWNE,SENE;

The following lands are subject to Exhibit WR-TL-08 to protect big game severe winter range:

T. 0030N., R 0980W., 6TH PM
Sec. 30: NE,NENW;
Sec. 36: N2;

BLM; CDO: WRRA

PARCEL ID: 6188 SERIAL #:

T. 0030N., R 0980W., 6TH PM
Sec. 8: ALL;
Sec. 9: Lot 1,3;
Sec. 9: N2,N2S2,SWSW;
Sec. 15: Lot 1,6,7,11,13;
Sec. 15: NE;
Sec. 16: Lot 4,5,12,13,16,18;
Sec. 16: W2W2;
Sec. 17: ALL;

Moffat County
Colorado 2398.870 Acres

All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

All lands are subject to Exhibit CO-39 to protect cultural resources.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:

T. 0030N., R 0980W., 6TH PM
Sec. 8: E2NW,SENE;
Sec. 9: Lot 1,N2SW;
Sec. 15: Lot 13
Sec. 16: Lot 13,SWNW;
Sec. 17: SENE,SESE,NESW,S2SW;

The following lands are subject to Exhibit WR-NSO-01 to protect potential landslide areas:

T. 0030N., R 0980W., 6TH PM
Sec. 8: W2NW,SW;
Sec. 16: SWSW;
Sec. 17: SESW;

All lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values.

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The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:

T. 0030N., R 0980W., 6TH PM
Sec. 8: NWNW;
Sec. 9: Lot 1;
Sec. 9: NESW,W2SW;

The following lands are subject to Exhibit WR-TL-03 to protect the nests of ferruginous hawks:

T. 0030N., R 0980W., 6TH PM
Sec. 8: W2,W2E2;
Sec. 17: NENW,W2NW;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:

T. 0030N., R 0980W., 6TH PM
Sec. 8: NENW,W2NW;
Sec. 9: Lot 1,3;
Sec. 9: W2SW,NESW, NWSE,SWNE,S2NW;

The following lands are subject to Exhibit WR-TL-08 to protect big game severe winter range:

T. 0030N., R 0980W., 6TH PM
Sec. 8: W2,NWNE;
Sec. 17: W2,S2SE;

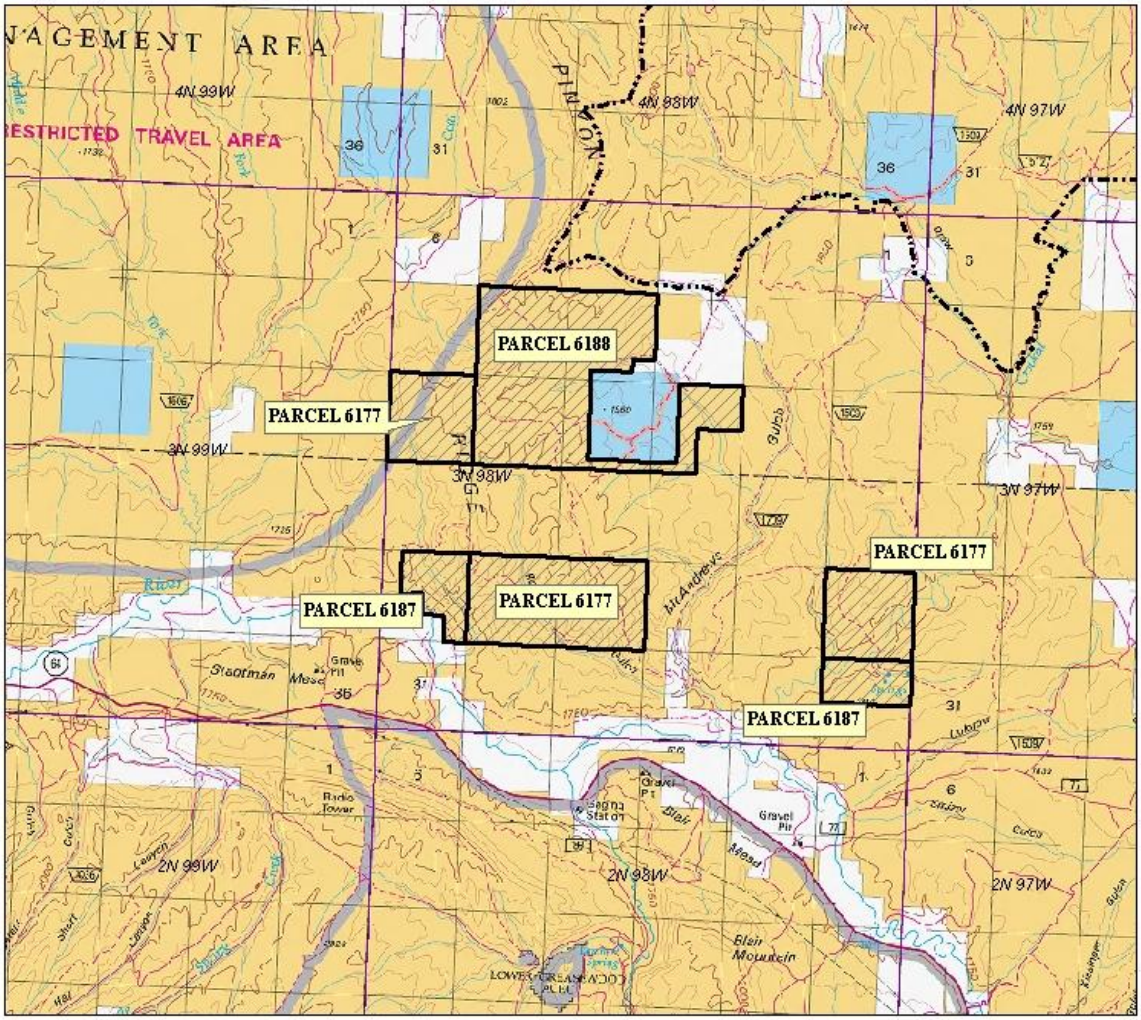
The following lands are subject to Exhibit WR-LN-01 to alert lessee of potential requirements for protection of prairie dog towns:

T. 0030N., R 0980W., 6TH PM
Sec. 8: NENE;
Sec. 9: NWNW;

BLM; CDO: WRRA

DRAFT

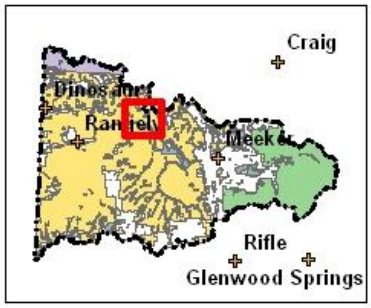
Attachment D
Location Maps of All Nominated Parcels
May 2012 – Colorado Competitive Oil and Gas Lease Sale



May 2012 Oil and Gas Lease Sale Nominated Parcels
FieldOffice_Boundary_WRFO

0 0.45 0.9 1.8 Miles

N



Disclaimer:
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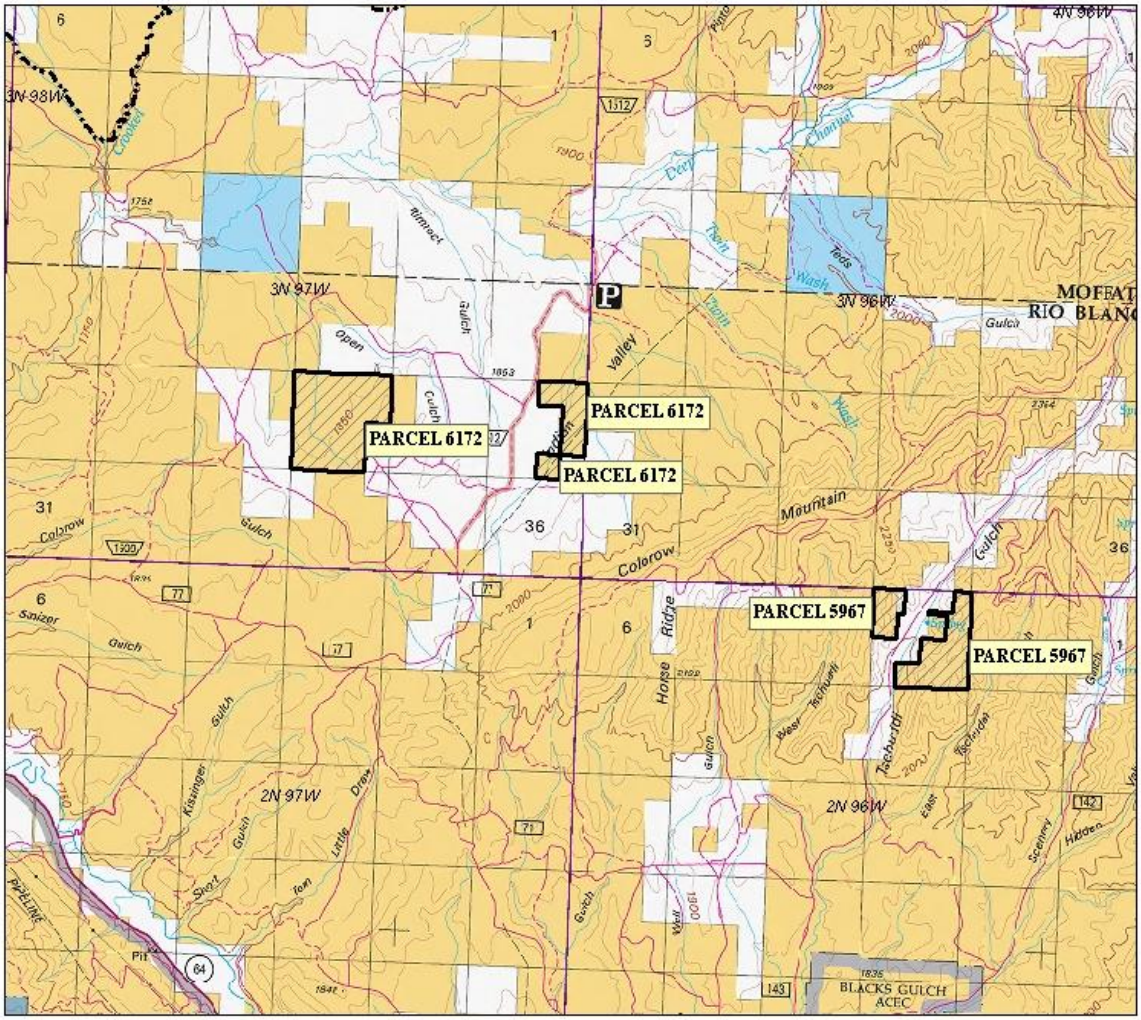
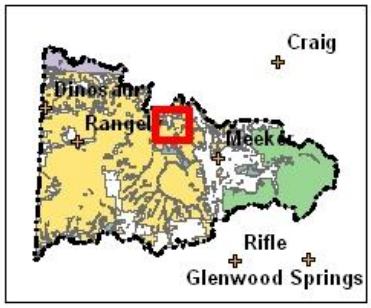
Attachment D
Location Maps of All Nominated Parcels
May 2012 – Colorado Competitive Oil and Gas Lease Sale



May 2012 Oil and Gas Lease Sale Nominated Parcels
FieldOffice_Boundary_WRFO

0 0.4 0.8 1.6 Miles

N



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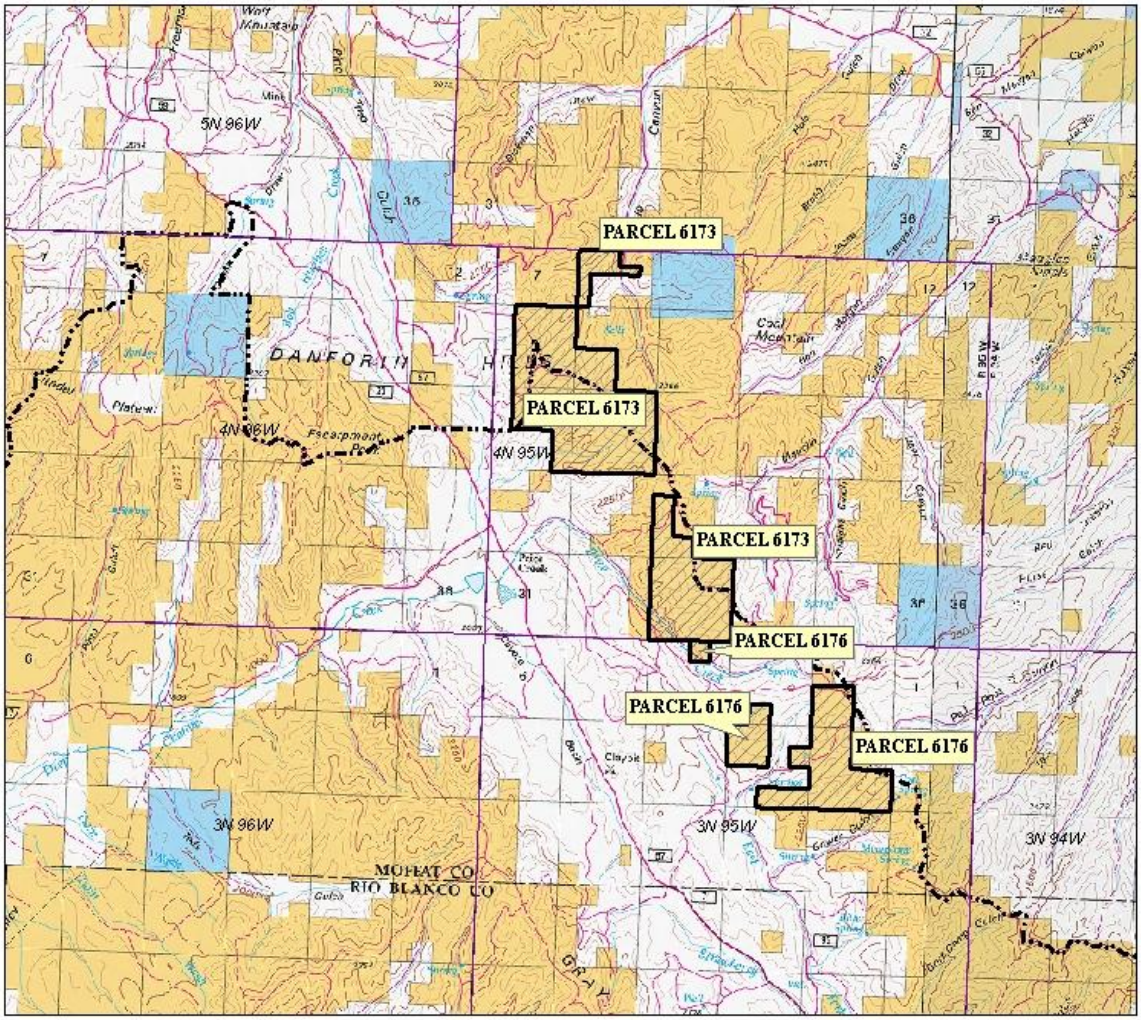
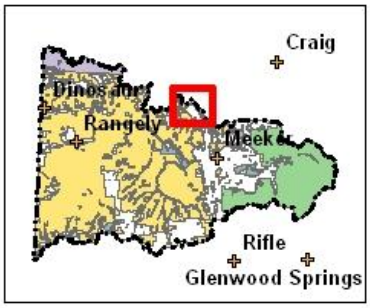
Attachment D
Location Maps of All Nominated Parcels
May 2012 – Colorado Competitive Oil and Gas Lease Sale



May 2012 Oil and Gas Lease Sale Nominated Parcels
FieldOffice_Boundary_WRFO

0 0.45 0.9 1.8 Miles

N



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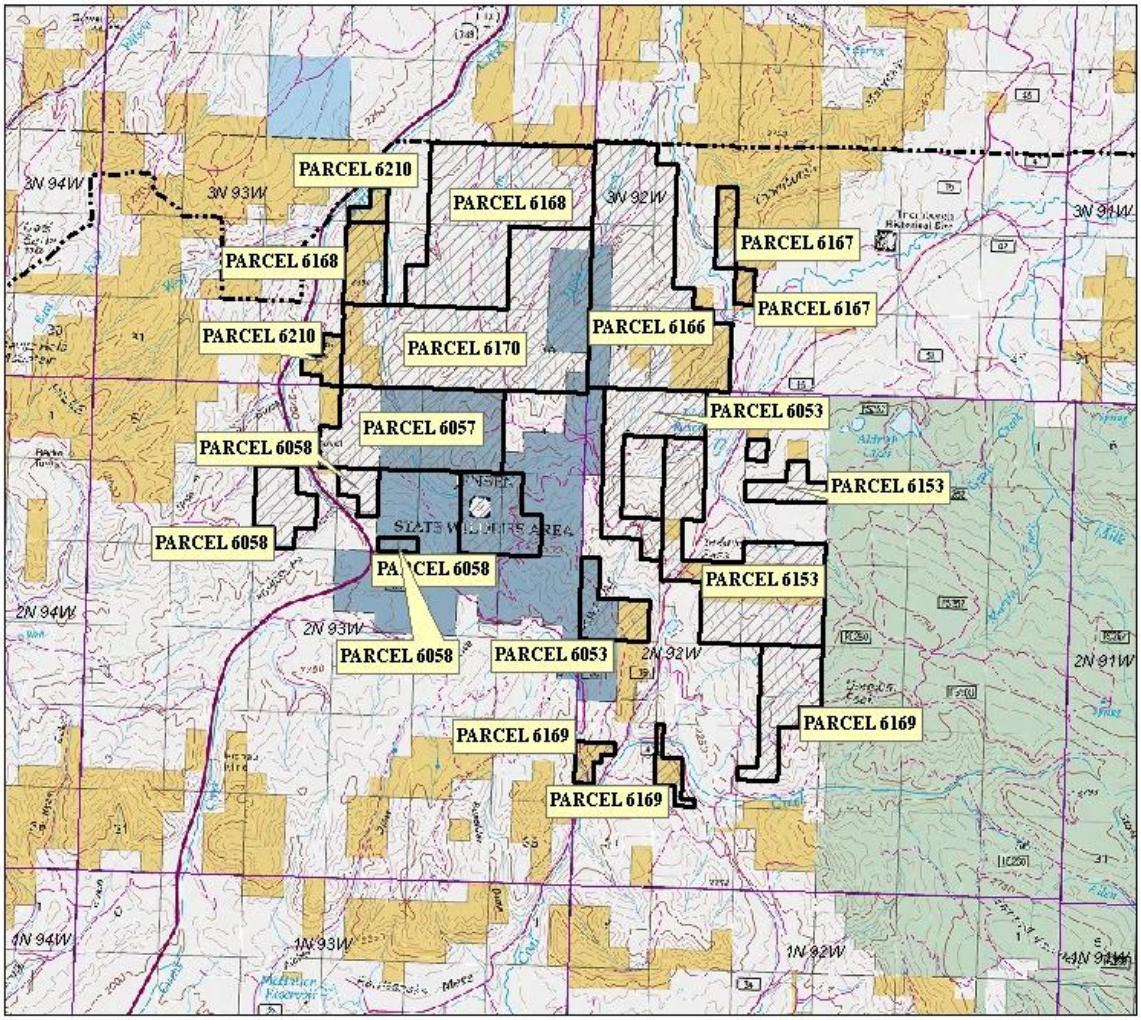
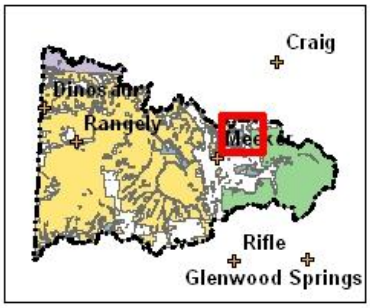


May 2012 Oil and Gas Lease Sale Nominated Parcels
FieldOffice_Boundary_WRFO

0 0.45 0.9 1.8 Miles

N



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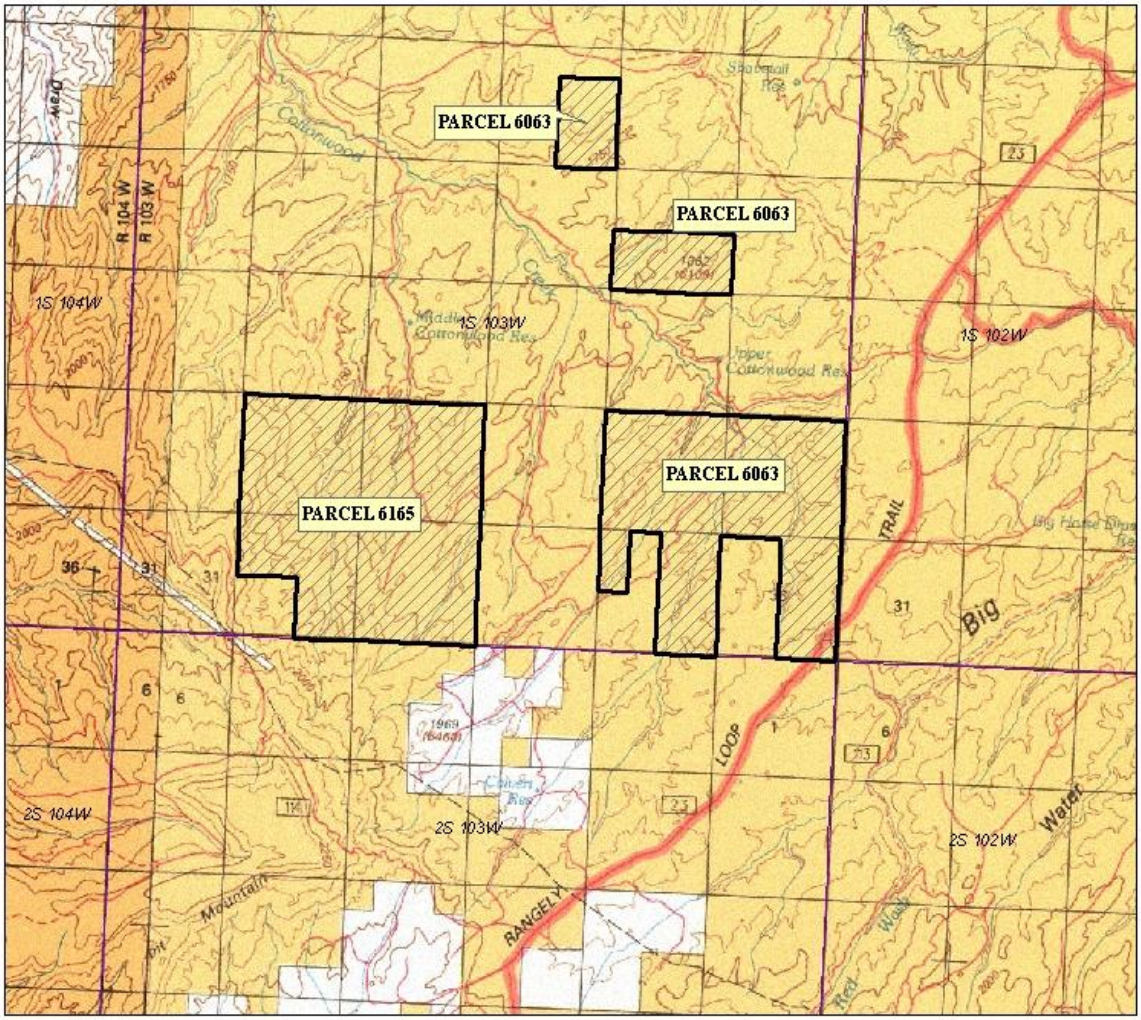
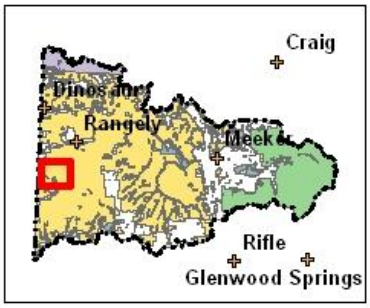


May 2012 Oil and Gas Lease Sale Nominated Parcels
FieldOffice_Boundary_WRFO

0 0.3 0.6 1.2 Miles

N



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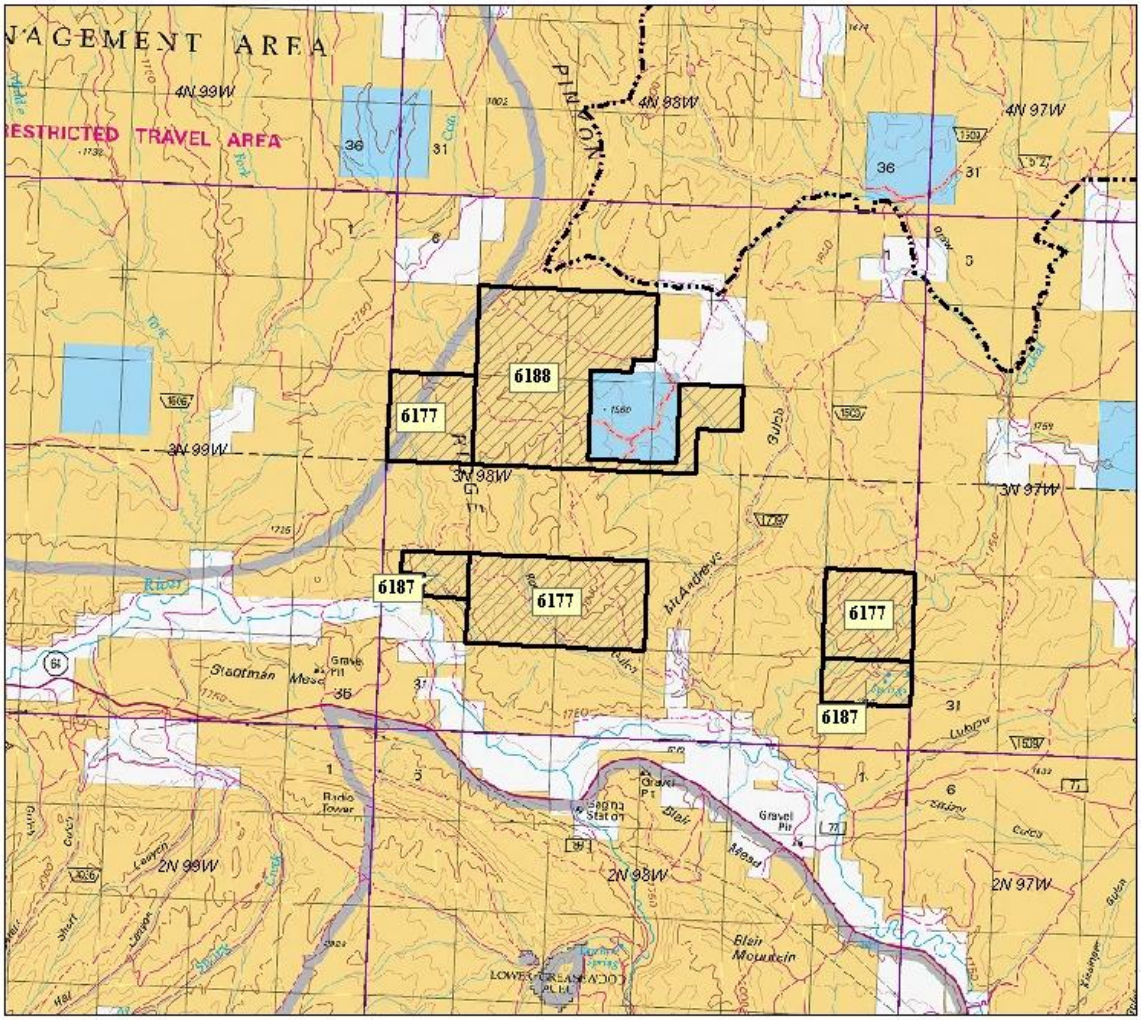
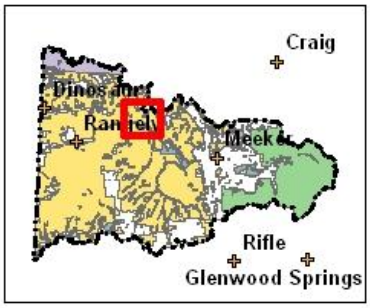
Attachment E
Location Maps of All Offered Parcels
May 2012 – Colorado Competitive Oil and Gas Lease Sale



May 2012 Oil and Gas Lease Sale Available Parcels
FieldOffice_Boundary_WRFO

0 0.5 1 2 Miles

N



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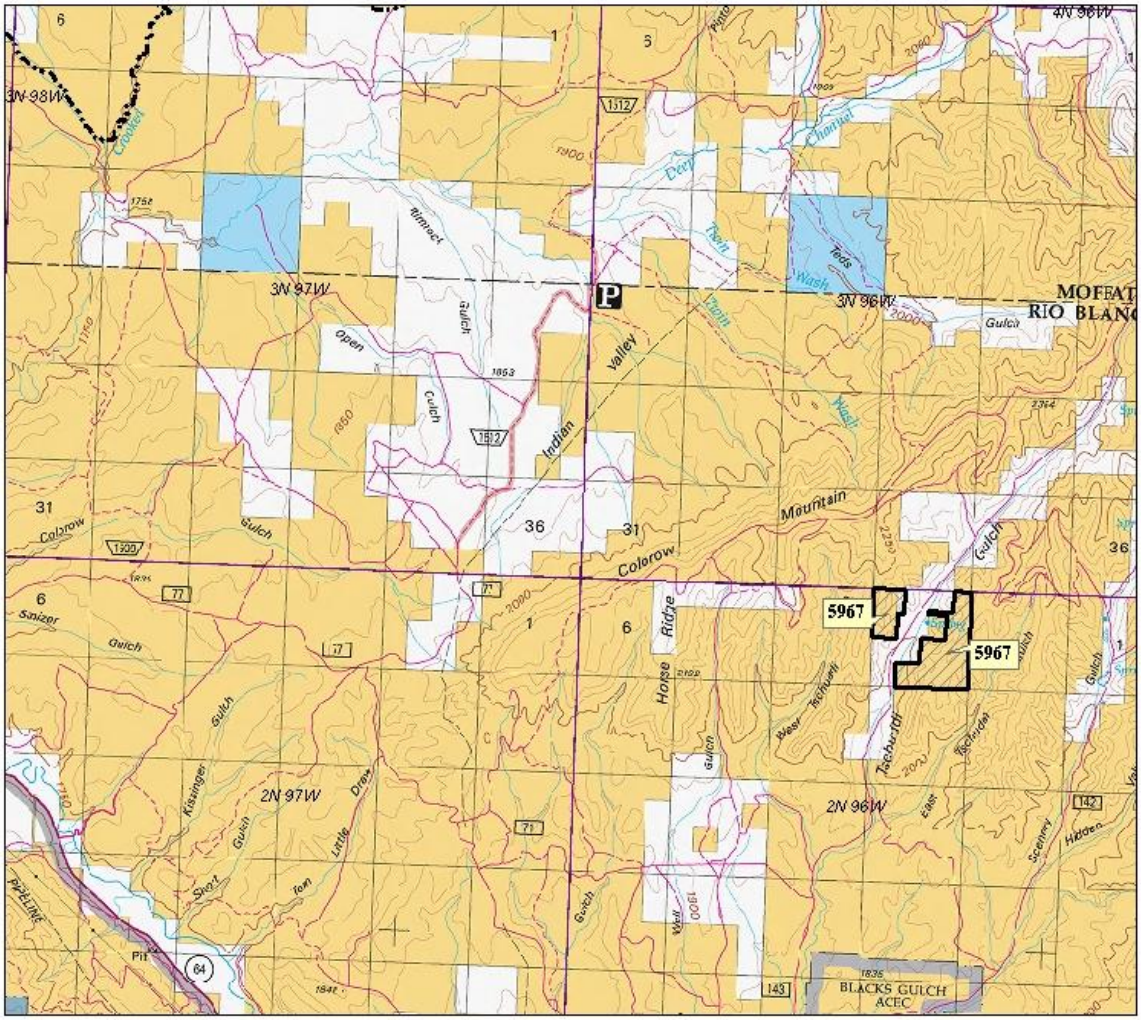
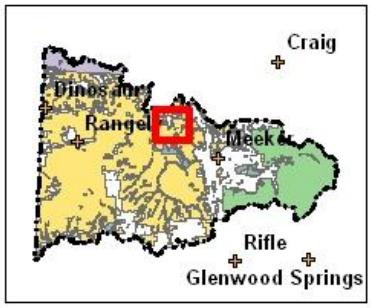


May 2012 Oil and Gas Lease Sale Available Parcels
FieldOffice_Boundary_WRFO

0 0.5 1 2 Miles

N



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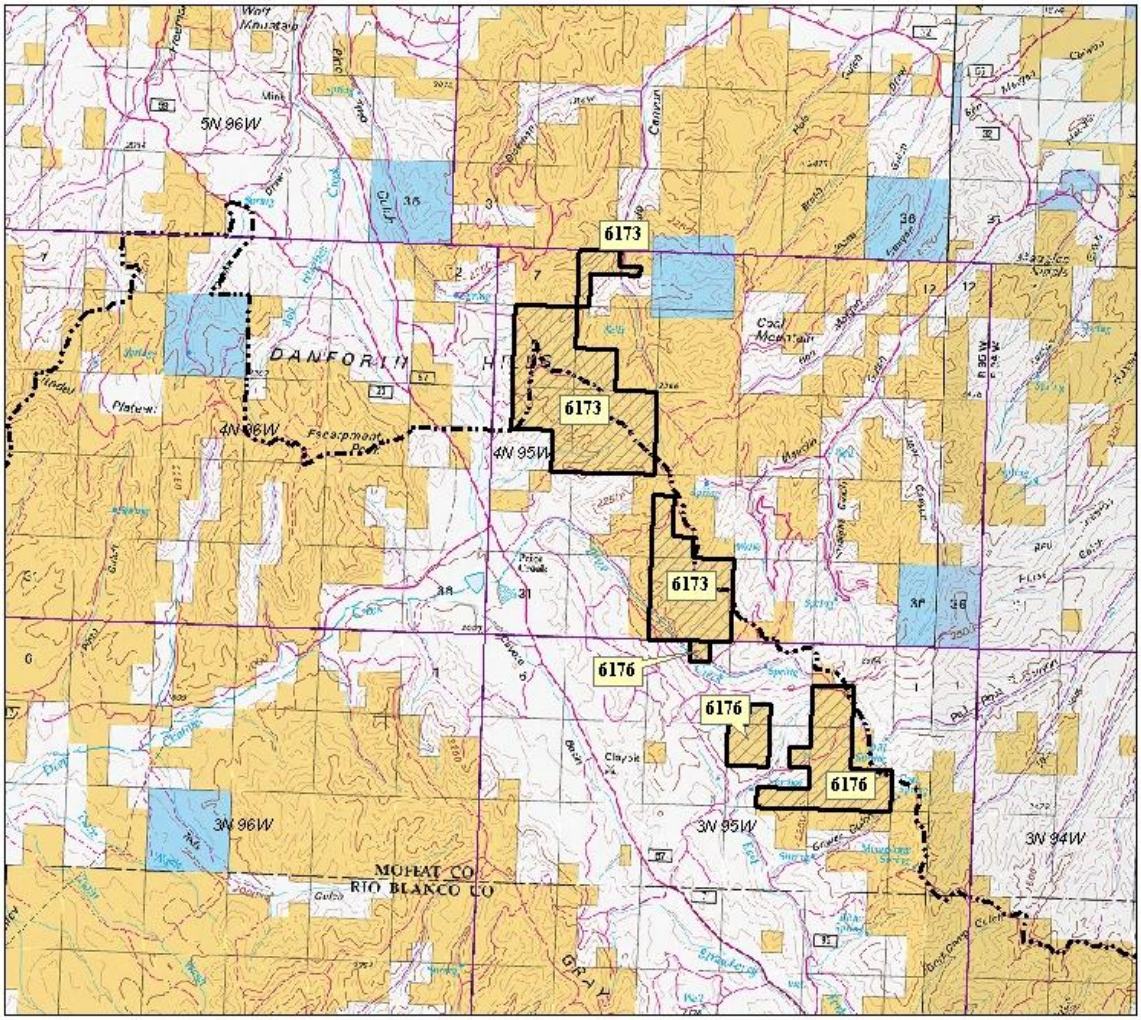
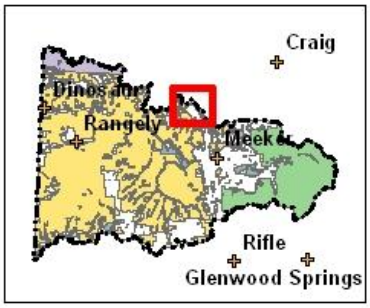


May 2012 Oil and Gas Lease Sale Available Parcels
FieldOffice_Boundary_WRFO

0 0.5 1 2 Miles

N



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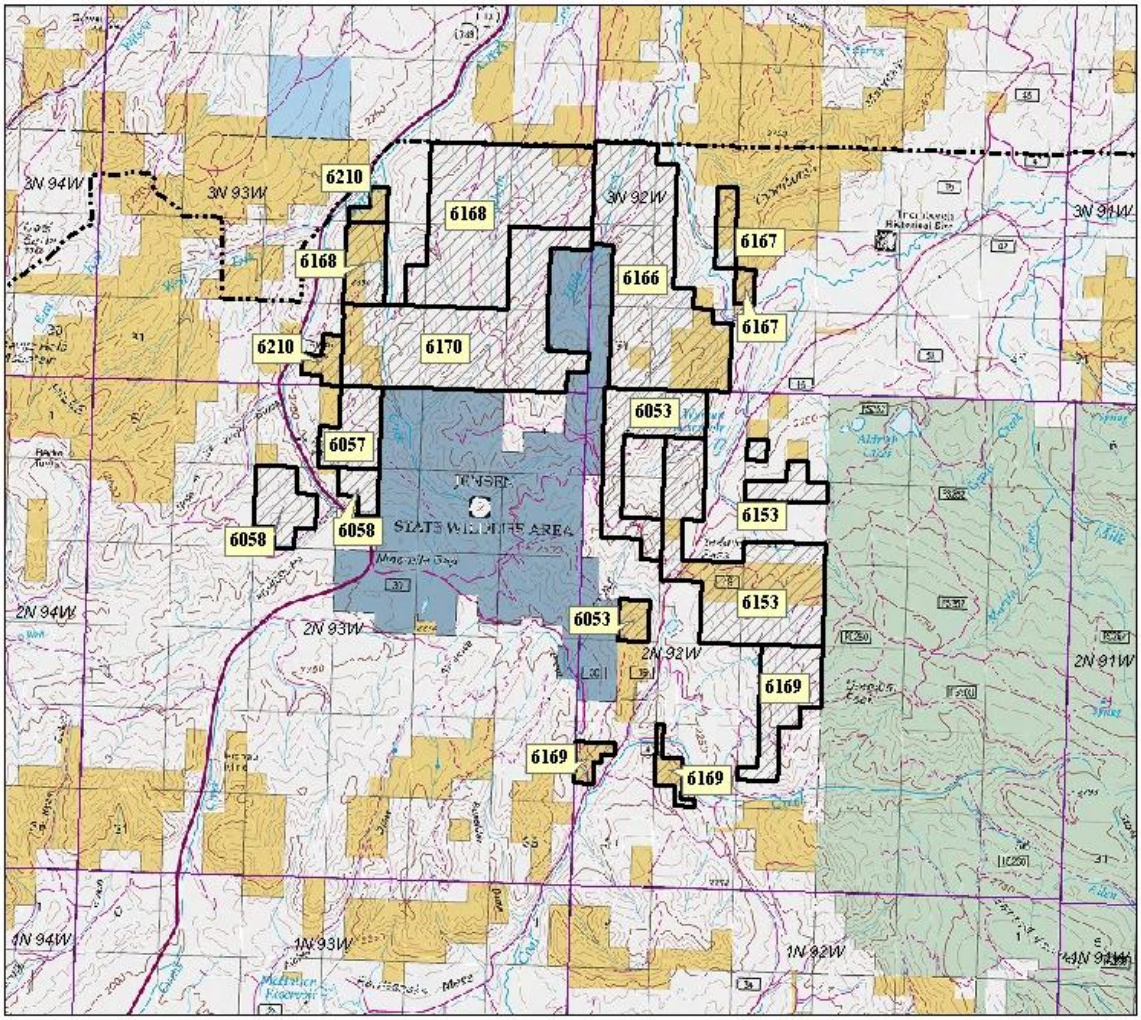
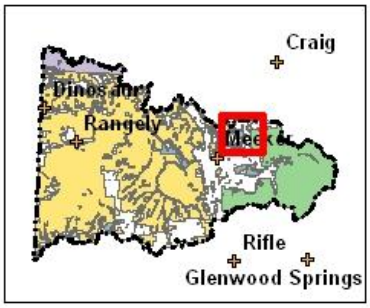


May 2012 Oil and Gas Lease Sale Available Parcels
FieldOffice_Boundary_WRFO

0 0.5 1 2 Miles

N



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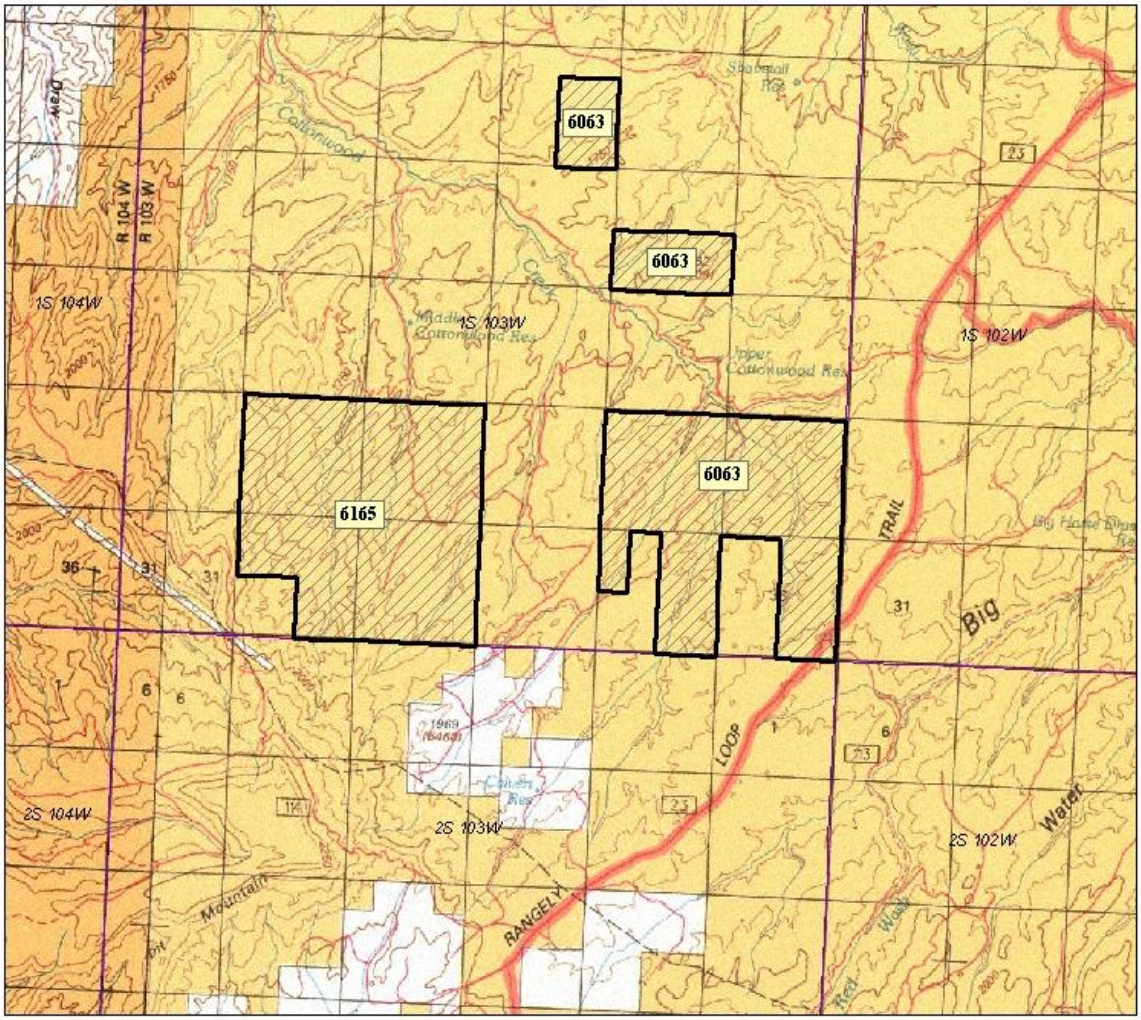
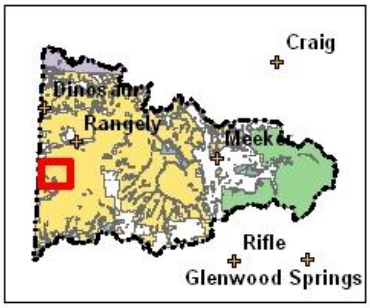


May 2012 Oil and Gas Lease Sale Available Parcels
FieldOffice_Boundary_WRFO

0 0.5 1 2 Miles

N



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Attachment F – Exhibits Description

EXHIBIT CO-28
CONTROLLED SURFACE USE STIPULATION

Surface occupancy or use is subject to the following special operating constraints.

On the lands described below:

For the purpose of:

To protect perennial water impoundments and streams, and/or riparian/wetland vegetation by moving oil and gas exploration and development beyond the riparian vegetation zone.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820. See also Geothermal PEIS ROD section 2.3.3 at page 2-6.)

Exception Criteria:

Exceptions may be granted only if an on-site impact analysis shows no degradation of the resource values.

EXHIBIT CO-29

An inventory of fossil resources in Class I and II paleontological areas must be performed by an accredited paleontologist approved by the Authorized Officer.

On the lands described below:

EXHIBIT CO-34
ENDANGERED SPECIES ACT SECTION 7 CONSULTATION STIPULATION

The lease area may now or hereafter contain plants, animals, or their habitats determined to be threatened, endangered, or other special status species. BLM may recommend modifications to exploration and development proposals to further its conservation and management objective to

avoid BLM-approved activity that will contribute to a need to list such a species or their habitat. BLM may require modifications to or disapprove proposed activity that is likely to result in jeopardy to the continued existence of a proposed or listed threatened or endangered species or result in the destruction or adverse modification of a designated or proposed critical habitat. BLM will not approve any ground-disturbing activity that may affect any such species or critical habitat until it completes its obligations under applicable requirements of the Endangered Species Act as amended, 16 U.S.C. § 1531 et seq., including completion of any required procedure for conference or consultation.

On the lands described below:

EXHIBIT CO-39
CONTROLLED SURFACE USE

This lease may be found to contain historic properties and/or resources protected under the National Historic Preservation Act (NHPA), American Indian Religious Freedom Act, Native American Graves Protection and Repatriation Act, E.O.13007, or other statutes and executive orders. The BLM will not approve any ground disturbing activities that may affect any such properties or resources until it completes its obligations under applicable requirements of the NHPA and other authorities. The BLM may require modification to exploration or development proposals to protect such properties, or disapprove any activity that is likely to result in adverse effects that cannot be successfully avoided, minimized or mitigated.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

On the lands described below:

EXHIBIT WR-CSU-01
CONTROLLED SURFACE USE STIPULATION

Surface occupancy or use is subject to the following special operating constraints:

Surface disturbing activities will be allowed in these areas only after an engineered construction/reclamation plan is submitted by the operator and approved by the Area Manager. The following items must be addressed in the plan: 1) How soil productivity will be restored; 2) How surface runoff will be treated to avoid accelerated erosion such as riling, gullying, piping, and mass wasting.

On the lands described below:

For the purpose of:

PROTECTING FRAGILE SOILS ON SLOPES GREATER THAN 35 PERCENT & SALINE SOILS

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see Bureau of Land Management Manuals 1624 and 3101 or Forest Service Manuals 1950 and 2820.)

EXCEPTION:
An exception may be granted by the Area Manager if an environmental analysis of the Proposed Action identifies that the scale of the operation would not result in any long-term decrease in site productivity or increased erosion. An exception may also be granted by the Area Manager if a more detailed soil survey determines that soil properties associated with the disturbance do not meet fragile soil criteria.

MODIFICATION: None

WAIVER: None

EXHIBIT WR-CSU-02
CONTROLLED SURFACE USE STIPULATION

Surface occupancy or use is subject to the following special operating constraints:

These Areas of Critical Environmental Concern (ACEC) are known to contain, or have potential to contain, threatened or endangered plants or plants that are candidates for listing as threatened or endangered, State of Colorado plant species of concern, Bureau of Land Management sensitive plants, remnant vegetation associations, and/or unique plant communities. A plant inventory will be conducted prior to approving any surface disturbing activities within the ACEC boundaries. Surface disturbance will not be allowed within mapped locations of these plants. The presence of the above listed plants would require relocating surface disturbance or facilities more than 200 meters. The timing required for conducting the plant inventories may require deferring activities longer than 60 days.

On the lands described below:

For the purpose of:

Protecting: ACECs

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see Bureau of Land Management Manuals 1624 and 3101 or Forest Service Manuals 1950 and 2820.)

EXCEPTION:
This stipulation may be excepted by the Area Manager if an environmental analysis of the Proposed Action indicates that the plants of concern would not be affected.

MODIFICATION: None

WAIVER: None

EXHIBIT WR-CSU-05
CONTROLLED SURFACE USE STIPULATION

Surface occupancy or use is subject to the following special operating constraints:

Prior to authorizing surface disturbance within this area, and pending conferral or consultation with the U.S. Fish & Wildlife Service as required by the Endangered Species Act, the Area Manager may require the proponent/applicant to submit a plan of development that would demonstrate that:

1) involvement of cottonwood stands or cottonwood regeneration areas have been avoided to the extent practicable;

2) special reclamation measures or design features are incorporated that would accelerate recovery and/or reestablishment of affected cottonwood communities;

3) the pre-development potential of affected floodplains to develop or support riverine cottonwood communities has not been diminished; and

4) the current/future utility of such cottonwood substrate for bald eagle use would not be impaired.

On the lands described below:

For the purpose of:

PROTECTING BALD EAGLE NEST, ROOST, & PERCH SUBSTRATE

This is a controlled surface use area for maintaining the long term suitability, utility and development opportunities for specialized habitat features involving nest, roost, and perch substrate on Federal lands.

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Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see Bureau of Land Management Manuals 1624 and 3101 or Forest Service Manuals 1950 and 2820.)

EXHIBIT WR-CSU-05 (continued)

EXCEPTION:
The Area Manager may grant an exception to this stipulation if an environmental analysis indicates that the proposed or conditioned activities would not affect the long term suitability or utility of habitat features or diminish opportunities for natural floodplain functions. Surface disturbance and occupation may also be authorized in the event that established impacts to habitat values would be compensated or offset to the satisfaction of the Bureau of Land Management in consultation with U.S. Fish & Wildlife Service and Colorado Division of Wildlife.

MODIFICATION: Integral with exception and stipulation.

WAIVER: None

EXHIBIT WR-LN-01
LEASE NOTICE

PRAIRIE DOG TOWNS: Lands within this lease parcel involve prairie dog ecosystems that constitute potential habitat for wild or reintroduced populations of the federally endangered black-footed ferret. Conservation and recovery efforts for the black-footed ferret are authorized by the Endangered Species Act of 1973 (as amended). The successful lessee may be required to perform special conservation measures prior to and during lease development. These measures may include one or more of the following:

1. Performing site-specific habitat analysis and/or participating in ferret surveys.

2. Participating in the preparation of a surface use plan of operations with Bureau of Land Management, U.S. Fish & Wildlife Service, and Colorado Division of Wildlife, which integrates and coordinates long term lease development with measures necessary to minimize adverse impacts to black-footed ferrets or their habitat.

3. Abiding by special daily and seasonal activity restrictions on construction, drilling, product transport, and service activities.

4. Incorporating special modifications to facility siting, design, construction, and operation.

5. Providing in-kind compensation for habitat loss and/or displacement (e.g., special on-site habitat enhancement).

On the lands described below:

EXHIBIT WR-LN-02
LEASE NOTICE

PALEONTOLOGICAL VALUES: This lease encompasses a Class I paleontological area and has the potential to contain important fossils. Prior to authorizing surface disturbing activities, the Bureau of Land Management will make a preliminary determination as to whether potential exists for the presence of fossil material. If potential exists for the presence of valuable fossils, the area will be required to have a Class I paleontological survey completed. Mapped fossil sites will be protected by applying the appropriate mitigation to the use authorization. Mitigation may involve the relocation of disturbance in excess of 200 meters, or excavation and recording of the fossil remains. Certain areas may require the presence of a qualified paleontologist to monitor operations during surface disturbing activities. Bureau of Land Management will determine the disposition of any fossils discovered and excavated.

On the lands described below:

EXHIBIT WR-NSO-01
NO SURFACE OCCUPANCY STIPLATION

No surface occupancy or use is allowed on the lands described below:

For the purpose of:

PROTECTING LANDSLIDE AREAS. Identified soils are considered unstable and subject to slumping and mass movement. Surface occupancy will not be allowed in such areas delineated from U.S. Department of Agriculture Soil Conservation Service Order III Soil Surveys.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see Bureau of Land Management Manuals 1624 and 3101 or Forest Service Manuals 1950 and 2820.)

EXCEPTION:

DRAFT

The Area Manager may authorize surface occupancy if an environmental analysis finds the nature of the Proposed Action could be conditioned so as not to impair the stability of the landslide areas. An exception may also be granted if a more detailed soil survey, that is, Order I, conducted by a qualified soil scientist, finds the soil properties associated with the Proposed Action are not susceptible to slumping and mass movement.

MODIFICATION:
Site specific modifications may be granted by the Area Manager pending determination that a portion of the soil units meet the following conditions:

1. Inclusions within the soil unit where slopes are less than 35 percent.

2. A more detailed survey identifies and delineates wet areas and sloping rock formations, and the Proposed Action is designed to avoid those areas.

3. The Proposed Action utilizes land treatments and soil stabilization practices that will demonstrate a high probability of reducing soil loss and preventing degradation of water quality.

4. The Proposed Action would not cause slumping or mass movement as demonstrated through engineering and design criteria.

WAIVER: None

EXHIBIT WR-NSO-03
NO SURFACE OCCUPANCY STIPULATION

No surface occupancy or use is allowed on the lands described below:

For the purpose of:

PROTECTING OTHER RAPTORS. This area encompasses raptor nests of other than special status raptor species. Surface occupancy is not allowed within 1/8 mile of identified nests.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see Bureau of Land Management Manuals 1624 and 3101 or Forest Service Manuals 1950 and 2820.)

EXCEPTION:
An exception may be granted by the Area Manager if authorization is obtained from the U.S. Fish & Wildlife Service (through applicable provisions of the Endangered Species Act, Eagle Protection Act, or Migratory Bird Treaty Act) , to interrupt active nesting attempts and/or cause short or long term adverse modification of suitable nest site characteristics. The Area Manager may also grant an exception if an environmental analysis finds that the nature or conduct of the action, as proposed or conditioned, would not impair the function or utility of the nest site for current or subsequent nest activities or occupancy.

MODIFICATION:
Site specific modifications to the no surface occupancy area may be granted by the Area Manager pending determination that a portion of the area is not essential to nest site functions or utility; or that the nature or conduct of the activity, as proposed or conditioned, would not impair the function or utility of the nest site for current or subsequent nest activities or occupancy. The stipulation may also be modified if the proponent, Bureau of Land Management, and where necessary, other affected interests, negotiate compensation that satisfactorily offsets anticipated impacts to candidate raptor breeding activities and/or habitats. Modifications could also occur if sufficient information is provided that supports the contention that the action would not contribute to the suppression of breeding population densities or the population's production or recruitment regime from a Geographic Reference Area perspective.

EXHIBIT WR-NSO-03 (continued)

WAIVER:
A waiver may be granted by the Area Manager if documentation shows the nest site has been abandoned for a minimum of three years; or that the site conditions, including surrounding nest habitat, have changed such that there is no reasonable likelihood of site occupation for a subsequent minimum period of 10 years.

EXHIBIT WR-NSO-05
NO SURFACE OCCUPANCY STIPULATION

No surface occupancy or use is allowed on the lands described below:

For the purpose of:

Protecting: BALD EAGLE ROOSTS. This area encompasses bald eagle nocturnal roosts and/or concentration areas. Surface occupancy is not allowed with 1/4 mile of designated features.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see Bureau of Land Management Manuals 1624 and 3101 or Forest Service Manuals 1950 and 2820.)

EXCEPTIONS:
An exception may be granted by the Area Manager if authorization is obtained from the U.S. Fish & Wildlife Service (through applicable provisions of the Endangered Species Act, Eagle Protection Act, or Migratory Bird Treaty Act), to interrupt roosting activities and/or cause short or long-term adverse modification of suitable roost site characteristics. The Area Manager may also grant an exception if an environmental analysis indicates that the nature or conduct of the action, as proposed or conditioned, would not impair the function or utility of the site for current or subsequent roosting activities or occupancy.

MODIFICATIONS:

The no surface occupancy stipulation may be modified by the Area Manager if an environmental analysis indicates that a portion of the area is nonessential to roost site function or utility; or that the Proposed Action could be conditioned to not impair the function or utility of the site for current or subsequent roosting activities or occupancy. The stipulation may also be modified commensurate with changes in species status.

WAIVER:
The stipulation may be waived if the species becomes extinct or if the site has failed to support roosting activities over a minimum three-year period. A waiver may also apply if the area has changed such that there is no reasonable likelihood of site occupation for a subsequent minimum period of 10 years.

EXHIBIT WR-TL-01
TIMING LIMITATION STIPULATION

No surface use is allowed during the following time period(s). This stipulation does not apply to operation and maintenance of production facilities.

No development activities are allowed with 1/2 mile of identified nest sites from February 1 through August 15, or until fledgling and dispersal of young. Development activities will be allowed from August 16 through January 31.

On the lands described below:

For the purpose of (reasons):

Protecting: LISTED, PROPOSED, OR CANDIDATE THREATENED OR ENDANGERED & BUREAU OF LAND MANAGEMENT SENSITIVE RAPTORS OTHER THAN BALD EAGLE: This area encompasses the nests of threatened, endangered, or candidate raptors.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see Bureau of Land Management Manuals 1624 and 3101 or Forest Service Manuals 1950 and 2820.)

EXCEPTION:
An exception may be granted to these dates by the Area Manager, if authorization is obtained from the U.S. Fish & Wildlife Service (through applicable provisions of the Endangered Species Act, Eagle Protection Act, or Migratory Bird Treaty Act) to harass, harm, wound, or kill in the context of active nesting attempts. An exception can also be granted if an environmental analysis of the Proposed Action indicated that nature or conduct of the activity could be conditioned so as not to impair the utility of nest for current or subsequent nesting activity or occupancy. The Area Manager may also grant an exception if the nest is unattended or remains unoccupied by May 15 of the project year.

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EXHIBIT WR-TL-01 (continued)

MODIFICATION:
The Area Manager may modify the size of the stipulation area if an environmental analysis indicates that a portion of the area is nonessential to nest utility or function, or that the Proposed Action could be conditioned so as not to impair the utility of nest for current or subsequent nest activities or occupation. The stipulation may also be modified if the proponent, Bureau of Land Management, and where necessary, other affected interests, negotiate compensation that satisfactorily offsets anticipated impacts to raptor breeding activities and/or habitats. Modifications could also occur if sufficient information is provided that supports the contention that the action would not contribute to the suppression of breeding population densities or the population's production or recruitment regime from a Geographic Reference Area perspective. If a species status is downgraded, or if a species is delisted, the size of the timing limitation area may be reduced.

WAIVER:
A waiver may be granted if the species becomes extinct or there is no reasonable likelihood of site occupation over a minimum 10-year period.

EXHIBIT WR-TL-03
TIMING LIMITATION STIPULATION

No surface use is allowed during the following time period(s). This stipulation does not apply to operation and maintenance of production facilities.

No development is allowed within one (1) mile of identified nests from February 1 through August 15, or until fledgling and dispersal of young. (Development activities will be allowed from August 16 through January 31) .

On the lands described below:

For the purpose of (reasons):

Protecting: FERRUGINOUS HAWKS: This area encompasses the nests of ferruginous hawks which are candidates for listing under the Endangered Species Act.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see Bureau of Land Management Manuals 1624 and 3101 or Forest Service Manuals 1950 and 2820.)

EXCEPTION:
An exception may be granted to these dates by the Area Manager, if authorization is obtained from the U.S. Fish & Wildlife Service (through applicable provisions of the Endangered Species Act, Eagle Protection Act, or Migratory Bird Treaty Act) to harass, harm, wound, or kill in the

context of active nesting attempts. An exception can also be granted if an environmental analysis of the Proposed Action indicates that nature or conduct of the activity could be conditioned so as not to impair the utility of nest for current or subsequent nesting activity or occupancy. The Area Manager may also grant an exception if the nest is unattended or remains unoccupied by May 15 of the project year.

EXHIBIT WR-TL-03 (continued)

MODIFICATION:
The Area Manager may modify the size of the stipulation area if an environmental analysis indicates that a portion of the area is nonessential to nest utility or function, or that the Proposed Action could be conditioned so as not to impair the utility of the nest site for current or subsequent nest activities or occupation. The stipulation may also be modified if the proponent, Bureau of Land Management, and where necessary, other affected interests, negotiate compensation that satisfactorily offsets anticipated impacts to raptor breeding activities and/or habitats. Modifications could also occur if sufficient information is provided that supports the contention that the action would not contribute to the suppression of breeding population densities or the population's production or recruitment regime from a Geographic Reference Area perspective. If the species status is downgraded, or if the species is delisted, the size of the timing limitation area may be reduced.

WAIVER:
A waiver may be granted if the species becomes extinct or there is not reasonable likelihood of site occupation over a minimum 10-year period.

EXHIBIT WR-TL-04
TIMING LIMITATION STIPULATION

No surface use is allowed during the following time period(s). This stipulation does not apply to operation and maintenance of production facilities.

No development activities are allowed within 1/4 mile of identified nests from February 1 through August 15, or until fledgling and dispersal of young. (Development will be allowed from August 16 through January 31)

On the lands described below:

For the purpose of (reasons):

PROTECTING OTHER RAPTORS: This area encompasses the nests of raptors that are other than threatened, endangered, or candidate species.

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Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see Bureau of Land Management Manuals 1624 and 3101 or Forest Service Manuals 1950 and 2820.)

EXCEPTION:
An exception may be granted to these dates by the Area Manager, if authorization is obtained from the U.S. Fish & Wildlife Service (through applicable provisions of the Endangered Species Act, Eagle Protection Act, or Migratory Bird Treaty Act) to harass, harm, wound, or kill in the context of active nesting attempts. An exception can also be granted if an environmental analysis of the Proposed Action indicates that nature or conduct of the activity could be conditioned so as not to impair the utility of nest for current or subsequent nesting activity or occupancy. The Area Manager may also grant an exception if the nest is unattended or remains unoccupied by May 15 of the project year.

EXHIBIT WR-TL-04 (continued)

MODIFICATION:
The Area Manager may modify the size of the stipulation area if an environmental analysis indicates that a portion of the area is nonessential to nest utility or function, or that the Proposed Action could be conditioned so as not to impair the utility of the nest site for current or subsequent nest activities or occupation. The stipulation may also be modified if the proponent, Bureau of Land Management, and where necessary, other affected interests, negotiate compensation that satisfactorily offsets anticipated impacts to raptor breeding activities and/or habitats. Modifications could also occur if sufficient information is provided that supports the contention that the action would not contribute to the suppression of breeding population densities or the population's production or recruitment regime from a Geographic Reference Area perspective.

WAIVER: A waiver may be granted if the nest has remained unoccupied for a minimum of three years or conditions have changed such that there is no reasonable likelihood of site occupation over a minimum 10-year period.

EXHIBIT WR-TL-05
TIMING LIMITATION STIPULATION

No surface use is allowed during the following time period(s). This stipulation does not apply to operation and maintenance of production facilities.

No development is allowed within 1/2 mile of identified sites from November 15 through April 15. (Development activities will be allowed from April 16 through November 14.)

On the lands described below:

For the purpose of (reasons):

Protecting: BALD EAGLE WINTER ROOSTS & CONCENTRATION AREAS. This area encompasses bald eagle winter roosts and concentration areas.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see Bureau of Land Management Manuals 1624 and 3101 or Forest Service Manuals 1950 and 2820.)

EXCEPTION:
An exception may be granted to these dates by the Area Manager, if authorization is obtained from the U.S. Fish & Wildlife Service (through applicable provisions of the Endangered Species Act, Eagle Protection Act, or Migratory Bird Treaty Act) to harass, harm, wound, or kill in the context of ongoing roosting activities and/or short or long term adverse modification of suitable roost site characteristics. An exception can also be granted if an environmental analysis of the Proposed Action indicates that nature or conduct of the activity (through Section 7 consultation) which fully offset losses associated with project implementation.

MODIFICATION:
The Area Manager may modify the size of the stipulation area or time frames if an environmental analysis indicates that a portion of the area is nonessential to roost site function and utility, or that the Proposed Action could be conditioned so as not to impair the utility of the roost site for current or subsequent roosting activities or occupancy.

WAIVER:
A waiver may be granted if the species becomes extinct, the site has failed to support roosting activities over a minimum three year period, or if the site conditions have changed such that there is no reasonable likelihood of site occupation over a minimum 10-year period.

EXHIBIT WR-TL-07
TIMING LIMITATION STIPULATION

No surface use is allowed during the following time period(s). This stipulation does not apply to operation and maintenance of production facilities.

No development is allowed from May 15 through June 30. (Development is allowed from July 1 through May 14.)

On the lands described below:

For the purpose of (reasons):

Protecting: ELK PRODUCTION AREA. This area encompasses an elk production area.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see Bureau of Land Management Manuals 1624 and 3101 or Forest Service Manuals 1950 and 2820.)

EXCEPTION:
The Area Manager may grant an exception if an environmental analysis indicates that the Proposed Action can be conditioned so as not to interfere with habitat function or compromise animal condition within the project vicinity. An exception may also be granted if the proponent, Bureau of Land Management, and Colorado Division of Wildlife negotiate compensation that would satisfactorily offset anticipated impacts to elk production or habitat condition. An exception may also be granted for actions intended to enhance the long term utility for availability of suitable habitat.

MODIFICATION:
The Area Manager may modify the size and time frames of this stipulation if Colorado Division of Wildlife monitoring information indicates that current animal use patterns are inconsistent with dates established for animal occupation. Modifications could be authorized if the Proposed Action could be conditioned so as not to interfere with critical habitat function or compromise animal condition. A modification may also be approved if the proponent, Bureau of Land Management, and Colorado Division of Wildlife agree to compensation that satisfactorily offset detrimental impacts to elk production or habitat condition.

EXHIBIT WR-TL-07 (continued)

WAIVER:
This stipulation may be waived if Colorado Division of Wildlife determines that the area is no longer utilized by elk for production purposes.

EXHIBIT WR-TL-08
TIMING LIMITATION STIPULATION

No surface use is allowed during the following time period(s). This stipulation does not apply to operation and maintenance of production facilities.

No development activity is allowed from December 1 through April 30. (Development activities are allowed from May 1 through November 30.)

On the lands described below:

For the purpose of (reasons):

PROTECTING BIG GAME SEVERE WINTER RANGE. This area encompasses big game severe winter range.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see Bureau of Land Management Manuals 1624 and 3101 or Forest Service Manuals 1950 and 2820.)

EXCEPTION:
The Area Manager may grant an exception in an environmental analysis indicates that the Proposed Action could be conditioned as not to interfere with habitat function or compromise animal condition within the project activity. An exception may also be granted if the proponent, Bureau of Land Management, and Colorado Division of Wildlife negotiate compensation that would satisfactorily offset anticipated impacts to big game winter activities or habitat condition. Under mild winter conditions, when prevailing habitat or weather conditions allow early dispersal of animals from all or portions of a project area, an exception may be granted to suspend the last 60 days of this seasonal limitation. Severity of winter will be determined on the basis of snow depth, snow crusting, daily mean temperatures, and whether animals were concentrated on the winter range during the winter months. Exceptions may also be granted for actions specifically intended to enhance the long term utility or availability of suitable habitat.

EXHIBIT WR-TL-08 (continued)

MODIFICATION:
The Area Manager may modify the size and time frames of this stipulation if Colorado Division of Wildlife monitoring information indicates that current animal use patterns are inconsistent with dates established for animal occupation. Modifications may also be authorized if the Proposed Action could be conditioned so as not to interfere with habitat function or compromise animal condition. In addition, if the proponent, Bureau of Land Management, and Colorado Division of Wildlife agree to habitat compensation that satisfactorily offsets detrimental impacts to activity or habitat condition.

WAIVER:
This stipulation may be waived if the Colorado Division of Wildlife determines that all or specific portions of the area no longer satisfy this functional capacity.

EXHIBIT WR-TL-09
TIMING LIMITATION STIPULATION

No surface use is allowed during the following time period(s). This stipulation does not apply to operation and maintenance of production facilities.

This stipulation will not take effect until direct and indirect impacts to suitable summer range habitats exceed 10 percent of that available within the individual Game Management Units (GMU). When this threshold has been reached, no further development activity will be allowed from May 15 through August 15. (Development is allowed until 10 percent of individual GMU

summer habitat has been affected, then additional development is allowed from August 16 through May 14.)

On the lands described below:

For the purpose of (reasons):

Protecting: DEER & ELK SUMMER RANGE. This area is located within deer and elk summer ranges, which due to limited extent, are considered critical habitat within appropriate Colorado Division of Wildlife GMUs.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see Bureau of Land Management Manuals 1624 and 3101 or Forest Service Manuals 1950 and 2820.)

EXCEPTION:
The Area Manager may grant an exception if an environmental analysis indicates that the Proposed Action could be conditioned to have no additional influence on the utility or suitability of summer range habitats. An exception may also be granted if the proponent, Bureau of Land Management, and Colorado Division of Wildlife negotiate compensation that would satisfactorily offset anticipated impacts to summer range function or habitat. Exceptions may also be granted for actions specifically intended to enhance the long term utility or availability of suitable habitat.
EXHIBIT WR-TL-09 (continued)

MODIFICATION:
The Area Manager may modify the size and time frames of this stipulation if Colorado Division of Wildlife monitoring information indicates that current animal use patterns are inconsistent with dates established for animal occupation. Modifications may also be authorized if the Proposed Action could be conditioned to have no additional influence on the utility or suitability of summer range habitats.

WAIVER:
This stipulation may be waived if the Colorado Division of Wildlife determines that all or specific portions of the area no longer satisfy this functional capacity or that these summer ranges no longer
merit critical habitat status. Waivers will also be applied to delineated summer range occurring below 2,250 meters (7,350 feet) in elevation.

EXHIBIT LS RMP
TIMING LIMITATION STIPULATION

LSFO-RMP (October 2011) – Timing limitation to protect wintering big game species. Crucial winter habitat will be closed to surface disturbing activities from December 1 to April 30, with

the intent that this stipulation apply after the big game hunting season. In the case that the hunting season extends later, exceptions will be applied through normal procedures.

EXHIBIT LS RMP
NO SURFACE OCCUPANCY STIPULATION

LSFO-RMP (October 2011) – No surface occupancy to protect perennial water sources. No surface occupancy for up to 0.25 mile from perennial water sources, if necessary, depending on type and use of the water source, soil type, and slope steepness.

EXHIBIT LS RMP
CONTROLLED SURFACE USE STIPULATION

LSFO- RMP (October 2011) – Controlled surface use stipulation to protect fragile soils which are areas rated as highly or severely erodible by wind or water as described by the Natural Resources Conservation Service (NRCS) in the *Area Soil Survey Report* or as described by onsite inspection. Fragile soil criteria are also slopes greater than or equal to 35 percent if they have one of the other following soil characteristics: surface texture that is sand, loamy sand, very find sandy loam, silty clay, or clay; a depth to bedrock of less than 20 inches; an erosion condition rated as "poor"; or a K-factor greater than 0.32.

Surface disturbing activities will be allowed on isolated sites that meet fragile soil criteria, but only when performance standards and objectives can be met. Surface occupancy on public land will be permitted only where adherence to performance objectives for surface disturbing activities within fragile-soil areas is assured. Performance objectives for fragile soils include:

- Maintain soil productivity both by reducing soil loss from erosion and through proper handling of soil material.
- Reduce the impact to offsite areas by controlling erosion and/or overland flow from these areas.
- Protect water quality and quantity of adjacent surface and ground water sources.
- Reduce accelerated erosion caused by surface disturbing activities.
- Select the best possible site for development to reduce impacts on soil and water resources.

EXHIBIT LS RMP
CONTROLLED SURFACE USE STIPULATION

LSFO-RMP (October 2011) – Controlled surface use stipulation to protect slopes greater than 35 percent. Before surface disturbance on slopes of 35 percent or greater, an engineering or reclamation plan must be approved by the authorized officer. CSU stipulations may be accepted subject to an onsite impact analysis. CSU stipulations will not be applied when the authorized officer determines that relocation up to 200 meters can be applied to protect the riparian system during well siting.

U.S. Department of the Interior
Bureau of Land Management
White River Field Office
220 E Market St
Meeker, CO 81641

Finding of No Significant Impact (FONSI)

DOI-BLM-CO-110-2011-0178-EA

BACKGROUND

Nineteen new parcels comprising approximately 29,161 acres in the WRFO and LSFO are proposed for leasing in the May 2012 Colorado Competitive Oil and Gas Lease Sale (see Attachment A for complete legal descriptions). These parcels will be offered at public auction. Following the auction, any unsold parcels could be sold non-competitively. Two of these parcels straddle the administrative boundary between the WRFO and the Little Snake Field Office (LSFO). Approximately 13 acres of parcel 6176 and 1,046 acres of parcel 6173 occur within the LSFO. In general, each lease would be issued subject to stipulations identified in the 1997 White River Record of Decision and Approved Resource Management Plan (ROD/RMP). However, aliquot portions (i.e., down to a quarter/quarter) of parcels 6176 and 6173 that occur wholly within the boundary of the LSFO will be subject to stipulations identified in the 2011 Little Snake Record of Decision and Approved Resource Management Plan. These stipulations are specified in the attached parcel listing (Attachments C, F). Additional site specific analyses would take place upon submission of individual Applications for Permits to Drill (APD).

FINDING OF NO SIGNFICANT IMPACT

Based upon a review of the EA and the supporting documents, I have determined that the Proposed Action is not a major federal action and will not have a significant effect on the quality of the human environment, individually or cumulatively with other actions in the general area. No environmental effects meet the definition of significance in context or intensity, as defined at 40 CFR 1508.27 and do not exceed those effects as described in the White River Record of Decision and Approved Resource Management Plan (1997) or the Little Snake Record of Decision and Approved Resource Management Plan (2011). Therefore, an environmental impact statement is not required. This finding is based on the context and intensity of the project as described below.

Context

The project is a site-specific action directly involving BLM administered public lands that do not in and of itself have international, national, regional, or state-wide importance.

Intensity

The following discussion is organized around the 10 Significance Criteria described at 40 CFR 1508.27. The following have been considered in evaluating intensity for this Proposed Action:

1. Impacts that may be both beneficial and adverse.

Beneficial, adverse, direct, indirect, and cumulative environmental impacts have been disclosed in the EA. Analysis indicated no significant impacts on society as a whole, the affected region, the affected interests, or the locality. The physical and biological effects are limited to the White River Resource Area and adjacent land.

2. The degree to which the proposed action affects public health and safety.

Public health and safety would not be adversely impacted. There are no known or anticipated concerns with project waste or hazardous materials.

3. Unique characteristics of the geographic area such as proximity of historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.

There would be no adverse impacts to regional or local air quality, prime or unique farmlands, known paleontological resources on public land within the area, wetlands, floodplain, areas with unique characteristics, ecologically critical areas, or designated Areas of Critical Environmental Concern.

4. The degree to which the effects on the quality of the human environment are likely to be highly controversial.

There are no highly controversial effects on the environment.

5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

There are no effects that are highly uncertain or involve unique or unknown risk. Sufficient information on risk is available based on information in the EA and other past actions of a similar nature.

6. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

This Proposed Action does not set a precedent for other actions that may be implemented in the future to meet the goals and objectives of adopted Federal, State, or local natural resource related plans, policies, or programs.

7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.

No cumulative impacts related to other actions that would have a significant adverse impact were identified or are anticipated.

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8. The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historic resources.

Based on previous and ongoing cultural surveys, and through mitigation by avoidance, no adverse impacts to cultural resources were identified or anticipated. There are no known American Indian religious concerns or persons or groups who might be disproportionately and adversely affected as anticipated by the Environmental Justice Policy.

9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

No adverse impacts to any threatened or endangered species or their habitat that was determined to be critical under the Endangered Species Act were identified. If, at a future time, there could be the potential for adverse impacts, proposals would be modified or mitigated not to have an adverse effect or new analysis would be conducted.

10. Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

This alternative is in compliance with relevant Federal, State, and local laws, regulations, and requirements for the protection of the environment.

SIGNATURE OF AUTHORIZED OFFICIAL:

_____

Deputy State Director
Energy, Lands, and Minerals

DATE SIGNED:

DRAFT