United States Department of the Interior
Bureau of Land Management

Environmental Assessment for the May 2013 Oil and Gas Lease Sale

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

DOI-BLM-CO-110-2012-0123-EA

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ENVIRONMENTAL ASSESSMENT

NUMBER: DOI-BLM-CO-110-2012-0123-EA

PROJECT NAME: May 2013 Oil and Gas Lease Sale, White River Field Office (WFRO)

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

BACKGROUND

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 75 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.

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).

46 parcels comprising 42,101.806 acres within the White River Field Office (WRFO) were nominated for the May 2013 Competitive Oil and Gas Lease Sale. The legal descriptions of the nominated parcels are in Attachment A.The following Environmental Assessment (EA) documents the review of the parcels offered in the May 2013 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.

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 7/31/2012. A two week external scoping period was conducted from 9/5/2012 to 9/19/2012. This project was posted on the WRFO's on-line National Environmental Policy Act (NEPA) register on 9/5/2012. A courtesy notice was mailed to surface owners 9/4/2012 providing information on oil and gas leasing and the scoping period.

Issues: Internal scoping initially identified potential concerns regarding oil and gas leasing within the Thornburgh Battlefield, the Jensen State Wildlife Area, lands potentially containing wilderness characteristics, and greater sage-grouse habitat, Columbian sharp-tailed grouse habitat, and Colorado pikeminnow habitat.

Comments were received during the external scoping period from Dinosaur National Monument, The Wilderness Society, National Wildlife Federation/Colorado Wildlife Federation, Lunney Mountain LLC, David Smith Ranches, and Colorado Parks and Wildlife (CPW). External scoping identified a number of concerns including protecting source water protection for Public Water Supplies; protecting the Dinosaur National Monument visual resources; light and noise pollution; air quality; ground and surface water quality; greater sage-grouse habitat; lands with wilderness characteristics; Wilderness Study Areas; Colorado River cutthroat trout habitat; Jensen State Wildlife Area; lands in Areas of Critical Environmental Concern (ACECs); effects of leasing on agricultural operations on private land; hunting and fishing business; impacts to big game species; impacts from traffic and road use; protecting Arkansas river darter, brassy minnow, common shiner, northern/red belly dace, plains minnow, sucker mouth minnow, and plains leopard frog; protection for roundtail chub, bluehead sucker, and flannelmouth sucker, and Colorado pikeminnow; impacts to pronghorn, mule deer, elk, bald eagles, Columbian sharp-tailed grouse, black-footed ferret, and burrowing owls.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:

Proposed Action:
Thirty-two new parcels comprising approximately 17,246.79 acres in the WRFO are proposed for leasing in the May 2013 Colorado Competitive Oil and Gas Lease Sale (see Attachment C for complete legal descriptions). These parcels would be offered at public auction. Following the auction, any unsold parcels could be sold non-competitively.

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 32 new lease parcels from the May 2013 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.

ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD:
Originally, 46 parcels comprising approximately 42,101 acres within the WRFO (see Attachments A and D) were nominated for the November lease sale (see Attachment A for complete legal descriptions). An alternative considered but eliminated involved the lease of all the nominated parcels as provided in Attachment A, with no deferrals. This alternative was dropped from further consideration and not analyzed in detail because BLM identified the need for temporary deferral on 14 parcels and portions of 20 parcels in order to allow for further analysis of several resource concerns on these parcels. Additionally, portions of three parcels fell within the Little Snake Field Office (LSFO) and were deferred until the next lease sale for the LSFO. These resource concerns included such things as greater sage-grouse (an ESA candidate species), potential lands with wilderness characteristic areas, Colorado pikeminnow habitat, Jensen State Wildlife Area, Columbian sharp-tailed grouse habitat, and Thornburgh Battlefield. Leasing the deferred parcels could be analyzed in a future leasing EA when these resource concerns have been addressed.

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

> 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 6549 that are within the Little Snake Field Office (T3N, R93W, Section 28: Lots 6, 11, 14, 24; S1/2SW):

> 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 1 lists the past, present, and reasonably foreseeable future actions within the area that might be affected by the Proposed Action. The CEQ states that the "cumulative effects analyses should be conducted on the scale of human communities, landscapes, watersheds, or airsheds" using the concept of "project impact zone" or more simply put, 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 1. 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 and Treatments	X	X	X
Range Improvement Projects : Water Developments Fences & Cattleguards	X	X	X
Wildfire and Emergency	X	X	X

Action Description	STATUS		
	Past	Present	Future
Stabilization and Rehabilitation			
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
Oil Shale	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 (EA). 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 2 lists the resources considered and the determination as to whether they require additional analysis.

Table 2. 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.
PI	Special Status Animal Species*	See discussion below.
PI	Special Status Plant Species*	See discussion below.

Determination[1]	Resource	Rationale for Determination
PI	Migratory Birds	See discussion below.
PI	Aquatic Wildlife*	See discussion below.
PI	Terrestrial Wildlife*	See discussion below.
NP	Wild Horses	None of the proposed lease sale parcels are located within or adjacent to any of the wild horse use areas: Piceance-East Douglas Herd Management Area, North Piceance Herd Area or the West Douglas Herd Area.
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	While continued oil and gas development on public lands could affect fire management in the future, the act of leasing parcels does not have a specific impact. At the time when these parcels are developed, each proposal will be further analyzed for its direct, indirect, and cumulative effects.
PI	Social and Economic Conditions	See discussion below.
NP	Environmental Justice	According to 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.
NI	Realty Authorizations	A right-of-way 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. Direct, indirect, or cumulative effects cannot be predicted until the site-specific APD stage of development. Existing ROWs could 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.
PI	Recreation	See discussion below.
NI	Access and Transportation	It is likely that some new access roads will be constructed if the proposed parcels up for lease are ultimately developed for oil and gas resources. However, the dispersed nature of these parcels are not

Determination[1]	Resource	Rationale for Determination
		likely to result in effects to transportation. Furthermore, the action of leasing the parcels themselves is not anticipated to have an effect on access and transportation. Impacts from site specific developments will be analyzed as they are proposed.
NI	Lands with Wilderness Characteristics (LWC)	All proposed lease parcels on Federal surface that fall within areas identified as potentially containing wilderness character have been deferred until such a time that a complete inventory can be conducted and a determination made as to whether or not the areas possess wilderness characteristics. Please refer to the *White River Field Office Oil and Gas Development Draft Resource Management Plan Amendment and Environmental Impact Assessment, Section 3.9 and Section 4.9* for a detailed discussion of how lands potentially containing wilderness character were identified. As part of this process, all BLM surface lands within WRFO were screened and a total of 30 polygon areas were identified as meeting the minimum requirements for potentially containing wilderness character. To date, only six of the 30 polygons have been field inventoried and none of these six inventoried units intersect with proposed lease parcels. A small portion of parcels # 6571 and #6572 are on private estate and lie within LWC Polygon #16. However making them available for lease would not impact the suitability of Polygon #16 from a determination of containing wilderness character upon final inventory. Any future development of these parcels, should they be leased and developed, would be analyzed at the site specific level as they are proposed. If, at the APD stage, the BLM were to permit an access road to the private proposed lease parcels that lie within Polygon #16, it would generally not be consistent with the criteria for determining an area to contain wilderness character. However, the total acreage associated with such an access road could be removed, or "cherry-stemmed" out from the boundary of Polygon #16 without jeopardizing the BLM's ability to manage the remainder of the polygon to protect wilderness character.
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.
NI	Wilderness	No project elements occur within a Wilderness Study Area (WSA). Parcels 6579, 6580, 6578 and 6581 lie adjacent to, or in close proximity to, Bull Canyon and Willow Creek WSAs, however this does not preclude them from being leased. Impacts from site specific parcel developments, should it be proposed, would be analyzed in detail at that time.
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

Affected Environment:

The U.S. Environmental Protection Agency (EPA) has established national ambient air quality standards (NAAQS) for criteria pollutants, including 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). Exposure to air pollutant concentrations greater than the NAAQS has been shown to have a detrimental impact on human health and the environment. The EPA has delegated regulation of air quality under the federal Clean Air Act to the State of Colorado. The Colorado Department of Public Health and Environment (CDPHE), Air Pollution Control Division (APCD) administers Colorado's air quality control programs and is responsible for issuing permits for emission sources. The State has established the Colorado Ambient Air Quality Standards (CAAQS), which can be more, but not less stringent then the NAAQS. In addition to the criteria pollutants, regulations also exist to control the release of hazardous air pollutants (HAPs). HAPs are chemicals that are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental effects. EPA currently lists 188 identified compounds as hazardous air pollutants, some of which can be emitted from oil and gas development operations, such as benzene, toluene, and formaldehyde. Ambient air quality standards for HAPs do not exist; rather these emissions are regulated by the source type, or specific industrial sector responsible for the emissions.

Ambient air quality in the affected environment (i.e. compliance with the NAAQS) is demonstrated by monitoring for ground level (i.e. receptor height) atmospheric air pollutant concentrations. In general, the ambient air measurements show that existing air quality in the region is good. Concentrations for the criteria air pollutants are below the applicable state and federal ambient air quality standards. However, recent ozone monitoring data (shown below) suggests ambient concentrations are approaching the 8-hour air quality standard of 0.075 ppm during the summer ozone season (3 year average of the annual 4th highest 8-hour average). Ozone is not emitted directly from sources, but is chemically formed in the atmosphere via interactions of oxides of nitrogen (NO_X) and volatile organic compounds (VOCs) in the presence of sunlight and under certain meteorological conditions (NO_X and VOCs are Ozone precursors). Ozone formation and prediction is complex, generally results from a combination of significant quantities of VOCs and NO_X emissions from various sources within a region, and has the potential to be transported across long ranges. For more information on pollutant monitoring values, including the other criteria pollutants not shown below, please visit the EPA's AirData website at www.epa.gov/airdata.

Table 3. Current Area Monitoring Data

Monitor Location and ID	Owner	Pollutant (Data Shown, Limit)	Monitor Data		
			2009	2010	2011

Palisades 080770020	CDPHE	O3 (8 hour 4th highest, 0.075 ppm)	0.064	0.068	0.066
Colorado National Monument 080771001	CDPHE	O3 (8 hour 4th highest, 0.075 ppm)	0.058	0.065	0.068
Rangely 081030006	BLM	O3 (8 hour 4th highest, 0.075 ppm)	ND	0.058	0.073
Meeker 081030005	BLM	O3 (8 hour 4th highest, 0.075 ppm)	ND	0.066	0.063
Moffat Co. 080810002	Unknown	O3 (8 hour 4th highest, 0.075 ppm)	ND	ND	0.06

There is broad scientific consensus that humans are changing the chemical composition of our atmosphere. Activities such as fossil fuel combustion, deforestation, and other changes in land use are resulting in the accumulation of trace greenhouse gasses (GHGs) such as carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), water vapor, and several industrial gases in our atmosphere. An increase in GHG emissions is said to result in an increase in the earth's average surface temperature, primarily by trapping and decreasing the amount of heat energy radiated by the earth back into space. The phenomenon is commonly referred to as global warming. Global warming is expected, in turn, to affect weather patterns, average sea level, ocean acidification, chemical reaction rates, precipitation rates, etc., which is commonly referred to as climate change. The Intergovernmental Panel on Climate Change (IPCC) has predicted that the average global temperature rise between 1990 and 2100 could be as great as 5.8°C (10.4°F), which could have massive deleterious impacts on the natural and human environments. Although GHG levels have varied for millennia (along with corresponding variations in climatic conditions), industrialization and burning of fossil carbon sources have caused GHG concentrations to increase measurably, from approximately 280 ppm in 1750 to 396 ppm in 2012 (as of June). The rate of change has also been increasing as more industrialization and population growth is occurring around the globe. This fact is demonstrated by data from the Mauna Loa CO_2 monitor in Hawaii that documents atmospheric concentrations of CO_2 going back to 1960, at which point the average annual CO_2 concentration was recorded at approximately 317 ppm. The record shows that approximately 70% of the increases in atmospheric CO_2 concentration or build up, since pre-industrial times has occurred within the last 50 years.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: The decision to offer the identified parcels for lease would not result in any direct emissions of air pollutants. However, any future exploration or development of these leases will result in emissions of criteria, HAP and GHG pollutants. The

additional emissions could result in an incremental increase in overall emissions of pollutants, in the region depending on any contemporaneous activities occurring at the same time when potential exploration and development occurring on the lease would happen.

While the act of leasing the parcels would produce no substantial air quality effects, potential future development of the lease could lead to increases in area and regional emissions. 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 effects through dispersion modeling or another applicable method at this time. Further, the timing, construction and production equipment specifications and configurations, and specific locations of activities are also unforeseeable at this time. Additional air effects will be addressed in a subsequent analysis when lessees file an Application for Permit to Drill (APD). 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.

Any subsequent activity authorized after APD approval could include soil disturbances resulting from the construction of well pads, access roads, pipelines, power lines, and drilling. Any disturbance is expected to cause increases in fugitive dust and potentially inhalable particulate matter (specifically PM10 and PM2.5) in the project area and immediate vicinity. Particulate matter, mainly dust, may become airborne when drill rigs and other vehicles travel on dirt roads to drilling locations. Air quality may also be affected by exhaust emissions from engines used for drilling, transportation, gas processing, compression for transport in pipelines, and other uses. These sources will contribute to potential short and long term increases in the following criteria pollutants: carbon monoxide, ozone (a secondary pollutant, formed photochemically by combining VOC and NO_X emissions), nitrogen dioxide, and sulfur dioxide. Non-criteria pollutants (for which no national standards have been set) such as carbon dioxide, methane, nitrous oxide, air toxics (e.g., benzene), and total suspended particulates (TSP) could also be emitted. Certain pollutants may be significant when evaluating air quality related values (AQRV) for effects on visibility and atmospheric deposition. Significance will depend greatly on the proximity to sensitive receptors, area meteorology, and the background levels of AQRV at any sensitive receptor.

During exploration and development, 'natural gas' may at times be flared and/or vented from conventional, coal bed methane, and shale wells. The gas is likely to contain volatile organic compounds that could also be emitted from reserve pits, produced water disposal facilities, and/or tanks located at the site. The development stage may likely include the installation of pipelines for transportation of raw product. New centralized collection, distribution and/or gas processing facilities may also be necessary.

Although potential future lease development is unforeseeable, potential regional development and the associated air impacts were analyzed by the WRFO to support the Draft Oil and Gas Development Resource Management Plan Amendment (DRMPA). The alternatives under the DRMPA considered various levels of oil and gas development (new wells per year ranging from 263 to 1,661 & total well counts of 4,603 to 21,200) and mitigation to represent a broad range of potential actions that may be implemented when the DRMPA is finalized.

According to the Reasonably Foreseeable Development (RFD) document prepared for the WRFO:

- the nominated lease parcels are contained within the high potential zone for oil and gas resources
- down hole well spacing in the Mesaverde play (the only spacing specified in the RFD) is estimated to be between 40 and 10 acres
- all of the nominated parcels are located on BLM mineral estate
- ignoring any parcel NSO stipulations or directional drilling limitations (which are unknown for the parcels) the spacing parameters would produce worst case well count estimates of between 431 and 1,725, based on the 17,247 acres nominated for the May sale.
- based on the lease area compared to the resource area, well estimates would be between 30 and 137 (lease area / total BLM lease area x apportioned total well count ranges (i.e. BLM mineral estate vs. Total mineral estate))

The extremes of this simple analysis are not reasonable for two key reasons. First, to hold these leases by production each lease (unless unitized) would be required to have one producing well within ten years of lease issuance, therefore there would need to be at least 32 wells (unless unitized). According to the RFD, the area could eventually have as many as 108 drill rigs in the planning area. Rigs would eventually achieve a drill rate of 3 weeks per well. Assuming one additional week of rig up/down and move time, the maximum rate of drilling would average about 1404 wells per year, or less that the maximum development described above.

Given the lack of foreseeable timing for potential development, specific details required to analyze such development, and the factors outlined above, it is reasonable to conclude that any future exploration and development of the leases would comport or otherwise be less than the impacts described under the worst case full RFD year modeled to support the WRFO DRMPA.

The BLM will continue to evaluate the effects of oil and gas exploration and development on the global climate, and apply appropriate management techniques and BMPs to address changing conditions. Research has identified the general potential effects of anthropogenic GHG emissions and their effects on global climatic conditions. Anthropogenic GHGs differentially absorb and emit thermal radiation in the atmosphere and therefore may contribute incrementally to climate change. Changes in global temperatures and climate vary with time, and are subject to a wide range of driving factors and complex interrelationships. Research on climate change effects is an emerging and rapidly evolving area of science, but given the lack of adequate analysis methods it is not possible to identify specific local, regional, or global climate change effects based on potential GHG emissions from any specific project's incremental contributions to the global GHG burden. In general, research indicates that in the coming decades climate change may lead to changes in the Mountain West and Great Plains, such as increased drought and wild land fire potential.

Protective/Mitigation Measures: Oil and or gas may be developed and produced subsequent to the proposed lease sale and ultimately be utilized to produce energy. The BLM will evaluate potential emissions of regulated air pollutants (including GHGs) associated with the development of the oil and gas resources in a subsequent analysis at the APD stage of the lease

life cycle. Substantial emission-generating activities cannot occur without further BLM analysis and approval of specific proposals for exploration and development operations on leased parcels. Future project specific emissions can generally be quantified and compared to overall sector, regional, or global (GHGs) estimates, as well as current air quality monitoring data and trends to provide some measures/context of the level and significance of any potential impacts.

BLM will review and approve these activities subject to conditions of approval (COA) to address air pollutant impacts, as appropriate. COA may be added at the permitting stage based on the review of site specific proposals, other applicable analysis of future exploration/development activities, or if new information becomes available, and the proposed mitigation is supported by a concise site specific NEPA analysis. COAs cannot take away lease rights or prevent development. All proposed activities including, but not limited to, exploration drilling activities would be subject to applicable local, State, Tribal, and Federal air quality laws and regulations.

The BLM will continue to evaluate the impacts of oil and gas exploration and development on the global climate, and apply appropriate management techniques, and BMPs, and develop policy to address changing conditions and developments as they occur.

Cumulative Effects: Due to the geographic extent of the nominated lease parcels, the cumulative effects area (CEA) development of the lease parcels may contribute incrementally to the deterioration of air quality in the region. Increased development of fluid minerals will result in a cumulative increase in surface and subsurface disturbances as well as increase emissions during drilling and completion activities and production. The type of effects will be the same as described under the direct effects associated with the proposed action. However, the severity of the effects could be elevated based on any contemporaneous development in surrounding areas.

An adequate regional air quality analysis was conducted for the WRFO in support of the Draft Oil and Gas Development Resource Management Plan Amendment (DRMPA). The analysis considered modeling scenarios for full RFD activities related to the field office's potential oil and gas resource and any foreseeable cumulative actions (BLM or otherwise) in or adjacent to the planning area. The model considered the maximum emissions year for production and construction emissions (expected in 2028) for each RFD alternative being considered under the DRMPA. The results suggested that ozone impacts attributable to potential cumulative emissions are not expected to cause or contribute to violations of the ozone NAAQS for any alternative considered. Deposition analysis indicates that cumulative nitrogen and sulfur deposition rates would be below the Levels of Concern (LAC) at modeled Class I and sensitive Class II areas. Visibility impacts relative to the estimated natural background conditions varied considerably by alternative with changes representing increases and decreases in the number of days when visibility impacts would be noticeable in the context of normal human perception. Sensitive lake chemistry with respect to acid neutralization would be below the level of concern with the exception of the Upper Ned Wilson Lake. This lake has a LAC of no change from the baseline.

Currently, global climate models are inadequate to forecast local or regional effects on resources (IPCC, 2007; CCSP, 2008). However, there are general projections regarding potential impacts to natural resources and plant and animal species that may be attributed to climate change from

GHG emissions over time; however these effects are likely to be varied, including those in the southwestern United States (Karl et al., 2009). For example, if global climate change results in a warmer and drier climate, increased particulate matter impacts could occur due to increased windblown dust from drier and less stable soils. Cool season plant species' spatial ranges are predicted to move north and to higher elevations, and extinction of endemic threatened/endangered plants may be accelerated. Due to loss of habitat or competition from other species whose ranges may shift northward, the population of some animal species may be reduced or increased. Less snow at lower elevations would likely impact the timing and quantity of snowmelt, which, in turn, could impact water resources and species dependent on historic water conditions (Karl et al., 2009).

The *Final Colorado Greenhouse Gas Inventory and Reference Case Projections 1990-2020* estimated that approximately 6.5 and 0.18 million metric tons of GHGs were emitted by the natural gas and oil fossil fuel industries in 2010 from production, processing, transmission, and distribution combined (CCS, 2007).

When compared to the total GHG emission estimates from the total number of oil and gas wells in the State, the average number of oil and gas wells drilled annually in the field office, any potential oil and gas exploration and development activities taking place on the leased parcels would represent a tiny fraction of the total regional and global GHG emission levels.

The impact of climate change depends upon the location of the affected resource, its vulnerability and resiliency to change, and its relationship to the human environment. There will be positive and negative impacts of climate change, even within a single region. For example, warmer temperatures may bring longer growing seasons in some regions, benefiting farmers who can adapt to new conditions, but potentially harming native plant and animal species. In general, the larger and faster the changes in climate are, the more difficult it will be for human and natural systems to adapt.

According to the Colorado Water Conservation Board, temperatures in Colorado increased by approximately 2° F between 1977 and 2006. As reported in the 2007 Colorado Climate Action Plan developed by the state of Colorado, climate change effects within Colorado have included:

- shorter and warmer winters with a thinner snowpack and earlier spring runoff;
- less precipitation overall with more falling as rain;
- longer periods of drought;
- more and larger wildfires;
- widespread beetle infestations;
- rapid spread of West Nile virus due to higher summer temperatures.

In relation to a 1950-1999 baseline, climate models project that Colorado will warm 2.5° F by 2025, and 4° F by 2050. The 2050 projection indicates that summers will warm by +5° F, and winters by 3° F (Colorado Water Conservation Board 2008). Future predicted climate change impacts on Colorado include:

- more frequent and longer lasting heat extremes that stress electrical utility demands
- longer and more intense wildfire seasons
- midwinter thawing and earlier melting of snowpack

- lower river flows in summer months
- water shortages for irrigated agriculture
- slower recharge of groundwater aquifers
- migration of plant and animal species to higher elevations
- more insect infestation in forests.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: There would be no impacts to air resources or climate from the No Action Alternative. Leasing of the parcels would not occur. No potential future emissions generating activities such as exploration or development would be reviewed or authorized on the nominated parcels.

Cumulative Effects: None.

Stipulations to be Applied as Mitigation: None, proposed mitigation measures are developed during the environmental analysis of a site specific APD.

GEOLOGY AND MINERALS

Affected Environment: The parcels are located in the Uinta - Piceance Province. Surficial geology of the parcels range in age from the Tertiary Uinta Formation on some of the western most parcels (6566, 6557, 6566, 6560, 6574), to the lower Jurassic and upper Triassic Glen Canyon sandstone on parcels 6578 and 6580 in the northwest. Site specific geology would be identified during the Application for Permit to Drill (APD) NEPA process. The oil and gas development potential (White River ROD/RMP) of the offered parcels of the parcels is as follows:

- 3 parcels are within low potential (6578, 6579, and 6580);
- 3 parcels are within medium potential (6581, 6599, and 6601); and
- the remaining 26 parcels are within high potential.

Thirty of the offered parcels have been previously leased and/or are adjacent to currently authorized federal oil and gas leases. Colorado Oil and Gas Conservation Commission (COGCC) oil and gas well database indicated past well activity has occurred on 11 of the offered parcels (6212, 6540, 6552, 6558, 6559, 6560, 6571, 6572, 6580, 6588, and 6599) with an additional 7 parcels (6214, 6550, 6556, 6573, 6578, 6579, and 6601) within one quarter mile of oil and gas well activity. 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.

Thirteen parcels are located in an area identified in the White River ROD/RMP as suitable for coal leasing. Seven of these parcels (6557, 6558, 6559, 65560, 6571, 6572, and 6573) are located

in the western portion of the field office approximately eight miles southwest of the nearest authorized federal coal lease of the active Deserado Mine. The remaining six parcels (6547, 6549, 6554, 6555, 6556, and 6568) are in the northeastern area of the field office with portions of parcels 6549, 6554, and 6555 located within the southern permit boundary of Colowyo's surface coal mine. Lots 6 and 24 of Section 28 Township 3 North, Range 93 West 6th P.M. of parcel 6549 are encumbered by federal coal lease COC29226.

Parcel 6550 and 6558 are 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., less than one half mile west of parcel 6588.

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 areas suitable 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. A portion of parcel 6549 within Colowyo's Permit Boundary within the LSFO would have a stipulation attached (see Attachment C) identifying it as a No Surface Occupancy (NSO) area for oil and gas development preventing conflict between oil and gas and coal development. With advances in today's drilling technologies the oil and gas resources below portions of parcels 6549, 6554, and 6555 within the WRFO could be recovered without development on the overlying surface. It is also unlikely that a conflict would occur between oil and gas development and the unpatented mining claim mineral interest on Parcels 6550 and 6558.

Cumulative Effects: Approximately 75 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 approximately 76 percent. Of offered lease acreage, approximately 12 percent is split estate. Direct, indirect, and cumulative effects of reasonably foreseeable oil and gas development are analyzed in the 1996 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. Thirty of the thirty-two offered parcels have been have been previously leased within the last ten years and/or are adjacent to currently authorized federal oil and gas leases. 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.

Stipulations to be Applied as Mitigation: The NSO Stipulation CO-1 will be added to portions of parcel 6549 that are within the LSFO.

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 4.

Table 4. Soil Classifications for Lease Areas Greater than 1 Acre in Size

Soil Type	Range Site	Sum Acres
Badland	None	1,102
Torriorthents-Rock outcrop, sandstone complex, 25 to 75 percent slopes	None	1,096
Owen Creek-Jerry-Burnette loams, 5 to 35 percent slopes	Brushy Loam	1,058
Torriorthents-Rock outcrop complex, 15 to 90 percent slopes	Stony Foothills	745
Torriorthents-Rock outcrop, shale complex, 30 to 75 percent slopes	None	691
Rock outcrop-Torriorthents complex, 50 to 75 percent slopes	None	683
Turley fine sandy loam, 3 to 8 percent slopes	None	672
Rhone-Northwater-Lamphier loams, 3 to 50 percent slopes	None	670
Solirec-Abracon-Begay complex, 2 to 15 percent slopes	None	655
Patent loam, 3 to 8 percent slopes	Rolling Loam	651
Eghelm loamy fine sand, 0 to 3 percent slopes	None	579
Rentsac-Moyerson-Rock outcrop complex, 5 to 65 percent slopes	None	523
Schooner-Tricera complex, 5 to 25 percent slopes	None	494
Mergel-Redthayne-Dollard complex, 8 to 65 percent slopes	Loamy Slopes	490
Rentsac-Moyerson complex, 25 to 65 percent slopes	None	411
Blazon, moist-Rentsac complex, 8 to 65 percent slopes	None	411
Chipeta-Walknolls complex, 5 to 15 percent slopes	Clayey Saltdesert	349
Moyerson stony clay loam, 15 to 65 percent slopes	Clayey Slopes	311
Waybe-Vandamore variant-Rock outcrop complex, 5 to 30 percent slopes	Dry Exposure	307
Walknolls channery sandy loam, 5 to 50 percent slopes	Saltdesert Breaks	295
Walknolls-Badland-Rock outcrop complex, 25 to 50 percent slopes	Semidesert Shallow Loam (Utah Juniper-Pinyon)	227
Avalon-Mack complex, 1 to 12 percent slopes	None	200

Soil Type	Range Site	Sum Acres
Jerry-Thornburgh-Rhone complex, 8 to 65 percent slopes	Brushy Loam	193
Lamphier-Jerry complex, 25 to 65 percent slopes	None	192
Chipeta-Killpack silty clay loams, 3 to 15 percent slopes	Clayey Saltdesert	185
Torriorthents-Torripsamments complex, 12 to 40 percent slopes	None	180
Schooner-Rock outcrop complex, 5 to 45 percent slopes	None	169
Denco-Gerst complex, 4 to 40 percent slopes	None	164
Gaynor-Midway silty clay loams, dry, 2 to 25 percent slopes	Silty Saltdesert	163
Lamphier-Tampico-Kamack loams, 5 to 60 percent slopes	None	162
Rock outcrop	None	160
Kemmerer-Grapit complex, 15 to 65 percent slopes	None	125
Piceance fine sandy loam, 5 to 15 percent slopes	Rolling Loam	121
Forelle loam, 3 to 12 percent slopes	None	121
Moyerson-Rentsac complex, 15 to 45 percent slopes	None	121
Billings-Torrifluvents complex, gullied, 0 to 5 percent slopes	None	93
Rabbitex flaggy loam, 10 to 65 percent slopes	None	81
Turley fine sandy loam, 0 to 3 percent slopes	None	81
Yamo loam, 3 to 15 percent slopes	None	71
Torrifluvents, gullied	None	55
Kemmerer-Yamo complex, 5 to 30 percent slopes	None	52
Nihill channery sandy loam, 5 to 50 percent slopes	Saltdesert Breaks	49
Mikim loam, 3 to 15 percent slopes	None	45
Rentsac-Piceance complex, 2 to 30 percent slopes	None	44
Tabyago-Cedarknoll association, 2 to 8 percent slopes	Upland Stony Loam (Wyoming Big Sagebrush)	35
Water	None	34
Walknolls-Gilston association, 2 to 25 percent slopes	Semidesert Shallow Loam (Wyoming Big Sagebrush)	26
Glendive fine sandy loam	Foothill Swale	25
Kemmerer-Moyerson complex, 20 to 40 percent slopes	None	25
Cliffdown-Cliffdown variant complex, 5 to 65 percent slopes	Saltdesert Breaks	23
Colorow sandy loam	Sandy Saltdesert	22
Potts-Begay fine sandy loams, 2 to 7 percent slopes	Loamy Saltdesert	20
Gompers very channery silt loam, 4 to 25 percent slopes	None	20
Billings silty clay loam, 0 to 5 percent slopes	None	19
Battlement silt loam, saline, 0 to 3 percent slopes	None	16
Silas variant loam	Mountain Swale	13
Badland-Walknolls-Rock outcrop complex, 50 to 90 percent slopes	None	11
Chipeta silty clay loam, 3 to 25 percent slopes	Clayey Saltdesert	11

Soil Type	Range Site	Sum Acres
Badland-Rock outcrop complex, 1 to 100 percent slopes	None	9
Cliff sandy loam, 2 to 4 percent slopes	None	9
Ironsprings loamy sand, 1 to 15 percent slopes	None	6
Blakabin-Rhone-Waybe complex, 5 to 50 percent slopes	Brushy Loam	5
Havre loam, 0 to 4 percent slopes	Foothill Swale	4
Uffens loam, 0 to 5 percent slopes	None	4
Cowestglen sandy loam, 0 to 3 percent slopes	None	3
Bulkley-Abor clay loams, 5 to 30 percent slopes	Clayey Foothills	2
Glenton sandy loam, 1 to 6 percent slopes	None	2
Fluvaquents, frequently flooded	None	1
Massadona silty clay loam, 0 to 12 percent slopes	None	1

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: The Proposed Action allows the subsequent exploration and development of lease parcels. Exploration and development includes building well pads, access roads, installation of pipelines, etc., which would physically disturb soils. Estimates for well pad density would be 1-2 pads during exploration and 4-8 single well pads during development. Single well pads are assumed for this analysis, but multi-well pads could be built and would depend on the number of wells needed 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, and 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 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. Development of oil and gas resources would likely occur using single well pads and would occur at approximately 4 to 8 wells per section. Development will also require gathering pipeline infrastructure, road networks and gas processing infrastructure.

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, contaminated soils once detected, 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 WRFO ROD/RMP has lease stipulations for the protection of soils with landslide potential (NSO-1) and require 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 DEM data and the USDA Soil Survey for Rio Blanco County. Of the total leased acres about 23 percent of the area (3,855 acres) is in fragile soils, another 2,465 acres is identified as having soils with landslide potential, 2,480 acres with slopes greater than 50 percent and about 968 acres of saline soils.

Table 5. Summary of Lease Parcel Attributes

Parcel #	Township	Range	Area (Acres)	NSO-1 %	CSU-1 %	Saline %
6212	5N	98W	320	0%	8%	0%
6213	2N	98W	44	0%	2%	0%
6214	4N	98W	466	6%	12%	2%
6540	4N	98W	320	11%	21%	11%
6547	3N	93W	560	24%	49%	0%
6549	3N	93W	465	20%	29%	0%
6550	3N	97W	40	0%	5%	0%
6551	3N	98W	69	35%	51%	2%
6552	4N	101W	240	23%	46%	0%
6554	3N	93W	320	37%	53%	0%
6555	3N	93W	280	17%	35%	0%
6556	2N	104W	569	0%	4%	46%
6557	2N	104W	1,047	1%	6%	28%
6558	2N	103W	963	18%	29%	6%
6559	1N	102W	2,385	3%	5%	0%
6560	1N	103W	1,071	3%	5%	0%
6566	1N	104W	462	0%	13%	0%
6568	1N	92W	1,311	63%	66%	0%
6571	2N	103W	322	19%	27%	22%
6572	2N	103W	120	10%	17%	43%
6573	1N	103W	603	4%	9%	0%
6574	1N	104W	38	0%	11%	0%
6578	3N	103W	520	4%	6%	0%

Parcel #	Township	Range	Area (Acres)	NSO-1 %	CSU-1 %	Saline %
6579	5N	104W	833	16%	26%	0%
6580	4N	103W	638	10%	16%	0%
6581	4N	102W	160	0%	7%	0%
6583	3N	96W	857	38%	55%	19%
6584	2N	96W	127	32%	56%	0%
6588	3N	97W	160	0%	3%	0%
6589	3N	96W	515	51%	59%	0%
6599	3N	103W	119	0%	0%	0%
6601	3N	104W	1,125	3%	2%	2%

Landslides are the rapid downhill movement of a mass of soil and loose rock, generally when wet and saturated. The 1997 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 6568 has more than 40 percent of its area on slopes greater than 50 percent. Parcels (6583, 6554, 6551, 6589, and 6584) have over 30 percent of their areas with slopes that are greater than 50 percent. Parcels with 20 percent of their areas with slopes greater than 50 percent are 6547, 6552, 6549, and 6571.

Soils on slopes greater than 50 percent are unstable and unusable from the standpoint of building roads (2,480 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 6568 has the greatest percentage of its land area covered by an NSO stipulation for unstable slopes (63 percent) (see Table 5). Applying an NSO-1 in these areas would only leave 37 percent of the lease areas available for locating infrastructure and drilling pads and most lease parcels. Therefore this NSO application may impede the development of the mineral resources in this lease parcel.

Table 6. Summary of Lease Parcels with Slopes Greater than 50%

Parcel #	Total Area	Township	Range	Acres >50% Slope	Percent
6568	1,311	1N	92W	607	46%
6583	857	3N	96W	324	38%
6554	320	3N	93W	118	37%
6551	69	3N	98W	25	35%
6589	515	3N	96W	169	33%
6584	127	2N	96W	40	31%
6547	560	3N	93W	140	25%

Parcel #	Total Area	Township	Range	Acres >50% Slope	Percent
6552	240	4S	101W	57	24%
6549	465	3N	93W	94	20%
6571	322	2N	103W	64	20%
6558	963	2N	103W	187	19%
6555	280	3N	93W	52	18%
6579	833	5N	104W	148	18%
6572	120	2N	103W	14	12%
6580	638	4N	103W	75	12%
6540	320	4N	98W	36	11%
6214	466	4N	98W	35	7%
6581	160	4N	102W	9	6%
6573	603	1N	103W	30	5%
6578	520	4N	103W	24	5%
6559	2,385	1N	102W	100	4%
6601	1,125	3N	104W	44	4%
6213	44	3N	98W	2	4%
6560	1,071	1N	103W	39	4%
6212	320	5N	98W	11	3%
6557	1,047	2N	104W	22	2%
6556	569	2N	104W	11	2%
6550	40	3N	97W	1	2%
6566	462	1N	104W	3	1%
6588	160	3N	97W	0	0%
6599	119	3N	103W	0	0%
6574	38	1N	104W	0	0%

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.

Stipulations to be Applied as 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 (See Attachment C).

WATER QUALITY, SURFACE AND GROUND

Affected Environment: Surface Water: Parcel 6559 has a portion located in the active channel of the White River and includes portions in the flood plain of the White River. Lease Parcel 6551 is an isolated spot that will be difficult to build roads to due to steep terrain and is located near the White River. It has 35 percent of its area on slopes greater than 50 percent and 51 percent of the area is subject to WR-CSU-1 to protect fragile soils. Lease parcels 6583, 6584, and 6589 are located in Crooked Wash, Tschuddi Gulch and Scenery Gulch, the terrain is particularly steep and there are not well developed roads. Parcel 6589 has over 50 percent of its land areas identified as having landslide potential.

Parcels 6601, 6578 and 6599 have portions within proximity to groundwater wells that are used as public water supplies for the town of Dinosaur and the water supply for Dinosaur National Monument Canyon Visitor Center (two miles east of Dinosaur, Colorado). The 2012 Oil and Gas Development Draft RMP Amendment/EIS includes a proposed NSO for these areas that were not identified for protection in the 1997 White River ROD/RMP. Oil and gas activities within ½ mile of these public water supply wells could potentially impact these wells during drilling and completion activities.

Most of the lease parcels are in steep and difficult terrain 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 and isolation of 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 with stipulations applied to leases for fragile soils and landslide potential.

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, however WR-NSO-1 and WR-CSU-1 protect fragile soils and steep slopes from excessive erosion that could impact water quality.

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 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.

Additional site-specific mitigation measures will be implemented at the APD stage based on the submitted Surface Use and Drilling Plans.

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 oil and gas development includes dispersed recreation (mostly hunting) and livestock grazing. Both the White and Yampa Rivers receive surface discharges from coal mines. The Yampa River has Steamboat, Hayden, and Craig above the lease parcels and 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 or cumulative impacts to the soils from oil and gas development under the No Action Alternative.

Stipulations to be Applied as Mitigation: Portions of parcels 6601, 6578, and 6599 are recommended for deferral, which would eliminate potential impacts to public water supplies. See Soils section.

WETLANDS AND RIPARIAN ZONES

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

Table 7. Parcels Supporting Riparian Communities

Parcel Number	Approx. length of channel involvement (miles)	Channel Name	Stream Type	Stream Rating*
6559	0; adjacent to channel	White River	Perennial	PFC
6580	0.50	East Twin Wash	Ephemeral	PFC –Reach 2 Non-functional/non-riparian – Reach 3
6578	0.30	East Twin Wash	Unknown (Private surface)	N/A
6552	0.25	East Douglas Creek	Perennial	FAR
6551	0.15	White River	Perennial (Private surface)	N/A
6213	0.08	White River	Perennial (Private surface)	N/A
6547	1.0	West Fk Good Spring Creek	Perennial	FAR
6554	0.66	West Fk Good Spring Creek	Unknown (Private surface)	N/A
6549	0; adjacent to channel	West Fk Good Spring Creek	Unknown (Private surface)	N/A

*PFC = Proper Functioning Condition; FAR = Functional at Risk

The West Fork of Good Spring Creek and East Douglas Creek are currently classified as functional-at-risk due to lack of riparian obligate species and heavy sediment loads throughout the system (Good Spring) and erosional issues (East Douglas). East Twin Wash exhibits disparate riparian characteristics with the upper reach (Reach 2) classified as properly functioning, while the lower reach (Reach 3) exhibits limited riparian expression and likely only flows water on rare occasions. The portion of the White River located adjacent to parcel 6559 is

considered to be in proper functioning condition. Stream conditions for those systems or portions of systems occurring on private lands are unknown as only federally-managed reaches are assessed.

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 1997 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 gentler 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.

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.

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 degradation of 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.

Stipulations to be Applied as Mitigation: None.

VEGETATION

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

Table 8. WRFO Range Sites within the Proposed Lease Parcels

Range Site	BLM	Private	State	Total
Alkaline Slopes	254.13	18.92		273.05
Alkaline Slopes/None	63.99	29.57		93.56
Aspen woodlands/Brushy Loam	10.35	154.93		165.28
Brushy Loam	857.13	210.15		1,067.27
Brushy Loam	285.11	238.37		523.48
Brushy Loam/Dry Exposure	4.87	0.02		4.89
BrushyLoam/AspenWoodland	141.12	8.86		149.98
Clayey Foothills	152.73	0.02	0.00	152.76
Clayey Saltdesert	119.32			119.32
Clayey Slopes	503.64	4.91		508.55
ClayeySaltdesert/Saltdesert breaks	584.74	67.08		651.82
Deep Loam	1.02	0.15		1.18
Desert Clay	149.84			149.84
Dry Exposure	70.91	34.40		105.31
Foothill Juniper	792.34	0.13	0.01	792.47
Foothill Swale	4.52			4.52
Foothills Juniper	122.46			122.46
Foothills Swale	48.88	0.00		48.88
Loamy Saltdesert	78.16			78.16
Loamy Saltdesert/Sandy Saltdesert	19.54			19.54
LoamySlopes/ClayeyFoothills	264.37	225.27		489.64
None	3,748.50	401.28	0.49	4,150.27
Pinyon-Juniper woodland	575.01	0.04		575.05
PJ woodland/Rolling Loam	66.73	6.16		72.89
PJ Woodlands/Clayey Slopes	1,292.58	64.62		1,357.20
Riverbottom	0.27			0.27
Rolling Loam	216.23	40.24		256.47
Salt Meadow	20.34	0.04		20.37
Saltdesert Breaks	226.32	0.00		226.32
Saltdesert Overflow	82.92	44.36		127.28
Sandy Foothills	6.39			6.39

Sandy Juniper	643.11	29.13	0.29	672.54
Sandy Saltdesert	8.56			8.56
Semidesert Loam	560.24	64.98		625.22
Semidesert Sandy Loam		1.52		1.52
Semidesert Shallow Loam	747.68	1.10		748.77
Silty Saltdesert	681.85	0.01		681.86
Stoney Foothills	1,479.42	34.36		1,513.78
Upland Shallow Loam	13.22			13.22
Upland Stony/Upland Shallow Loam	32.00			32.00
Total	**14,930.55**	**1,680.59**	**0.79**	**16,611.93**

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 6550, 6554, 6559, 6560, 6588, 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 when they are proposed.

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 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 and final abandonment of the development. These COAs generally include plans for reclamation, re-seeding, re-contouring, and soil stabilization on the site. Final reclamation practices will likely change through time as reclamation practices evolve and improve. 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

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

results in increased susceptibility to adverse impacts such as weed infestations and erosion (See Soil Resources and Invasive, Non-Native Species sections).

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

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.

Stipulations to be Applied as Mitigation: None.

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 currently 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 it 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 proposed lease parcel areas than annual invasive weeds, but potential exists for their establishment and spread onto adjacent rangelands. At the APD stage, the operator would be required to control or irradicate 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 each project through final abandonment.

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.

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.

Stipulations to be Applied as Mitigation: None.

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. Parcel 6559 is located immediately adjacent to the White River downstream from Taylor Draw Dam (occupied pikeminnow habitat). Approximately 250 meters and 100 of the White River flow through lease parcels 6551 and 6213, respectively. These parcels are located roughly 20 valley mile upstream from occupied pikeminnow habitat, but within critical habitat.

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.

Flannelmouth sucker, mountain sucker, roundtail chub and bluehead sucker are confined to the White River and some of its larger tributaries (Crooked Wash, Piceance Creek). Northern leopard frogs are associated with the White River's aquatic and riparian community. Parcel 6552 encompasses approximately 0.35 miles of East Douglas Creek. East Douglas supports populations of Colorado River cutthroat trout and speckled dace (native species). Lower distribution limits of resident cutthroat trout in East Douglas Creek are not entirely known as large portions of the creek are privately-owned which restricts sampling. However, based on some sampling on BLM portions it is suspected that trout habitat quickly deteriorates approximately two miles upstream of the proposed lease parcel. It is likely that fish could move a short distance downstream under more favorable flows.

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, East Douglas Creek and Good Spring 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 occur in May and June, and young are capable of flight 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 15 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 where suitable habitat occurs. 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. These toads have been documented (historically and in recent years) in stock ponds along Cottonwood Creek, the nearest being roughly 60 meters from parcel 6560.

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 parcel 6559 and within close proximity (< 800 meters) of parcels 6551 and 6213. There is an historic bald eagle nest in parcel 6559; however there has been no documented activity at this location in several years. Bald eagle nest sites have also been documented roughly 500 and 700 meters outside of parcels 6551 and 6213, respectively.

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. White-tailed prairie dog colonies are found in parcels 6601, 6556, and 6560.

Under the auspices of a non-essential, experimental population rule, black-footed ferrets were released annually from 2001 to 2008 in the Wolf Creek Field Management Area (WCMA). The rule applies to any ferrets that may occupy or eventually be released in northwest Colorado and northeast Utah. Ferrets are wholly reliant on prairie dogs for food and shelter. Ferret breeding activities begin in early March, with birthing beginning in early May. Young ferrets generally begin to emerge by mid-July. Recent survey efforts indicate that ferret numbers have decreased considerably in the WCMA (total of 13 and 12 observations in 2006 and 2008, respectively; 0 observations in 2009 and 2010). Currently, the WCMA does not support a viable ferret population, although a small number of individuals may persist. Parcels 6214 and 6540 are located inside the WCMA. Roughly 22 acres (5 acres of parcel 6556 and 17 acres of 6557) are located in the Coyote Basin Management Area (~ 0.2 percent of total CBMA). It is extremely unlikely that ferrets inhabit the Colorado portion of the CBMA.

Burrowing owls are relatively uncommon in this Resource Area. These birds return to occupy a maintained burrow system in early April and begin nesting soon after. Most birds have left the area by September. There are no known burrowing owl nests with the proposed lease parcels. The nearest nest, last known to be active in 2009 is approximately 160 meters outside of parcel 6601.

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. Aerial surveys conducted in 2009 and 2011 showed no evidence of recent nesting attempts in or around the project area. There are no documented (historic or recent) nests within any of the parcels although several historic nests have been documented within 0.50 miles of parcels 6556 and 6557.

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. Parcels 6601, 6560, 6573, 6540, 6214, 6588, 6583 and 6550 are located in general sage-grouse habitat as mapped by CPW.

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. Parcels 6560, 6573, 6540, 6214, 6588 and 6550 encompass general sage-grouse habitat, however due to factors including heavy pinyon-juniper encroachment and lack of evidence of occupation by birds in recent decades it is extremely unlikely that these parcels are capable of supporting grouse. Parcel 6601 is located along the Highway 40 corridor. Sagebrush communities in this area serve as general winter habitat for grouse but in all likelihood use in and around this parcel would be considered infrequent and sporadic. Similarly sagebrush flats comprising the western two-thirds of parcel 6550 and parcels 6214 and 6540 may serve as emergency greater sage-grouse winter range during winters with extreme snow accumulations. Lease stipulations (WR-TL-10) in addition to siting criteria that would avoid or minimize adverse modifications to sagebrush communities would be employed at the APD phase. A small portion of lease parcel 6583 (Township 3N Range 96W, Section 3, lots 13) is located in grouse general range roughly 2.5 miles from an active lek. These sagebrush flats may provide habitat during the nesting and brood-rearing phase. This parcel has been recommended for deferral.

Northern goshawk: Although there are no known goshawk nests within the proposed lease parcels, aspen communities in parcels 6555, 6547, 6554, 6549 and 6568 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: Parcels 6551, 6213 and 6559 have 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 WR-CSU-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. Although impossible to determine at the leasing phase, development of these parcels would result in some amount of direct habitat loss. 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 less than five 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 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 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. See also discussion in Migratory Bird section.

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. This would be limited to parcels 6552, 6601, 6578, 6579, and 6583.

White-tailed prairie dog and associates: White-tailed prairie dog involvement with the proposed lease parcels is minor and is confined to parcels 6601, with minor involvement in parcels 6556 and 6560. 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. Roughly 22 acres of parcels 6557 and 6553 are located within the CBMA boundary (~0.02 percent involvement with the Management Area). The majority of these parcels are located along a wooded ridgeline which does not support active prairie dog colonies and subsequently would not support ferret populations. Similarly, parcels 6540 and 6214 are located in the WCMA. These small parcels, 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 800 meters from the parcel boundary. These rugged woodland types do not provide suitable habitat for either species, and impacts to either species are not expected. However, activities associated with lease development have the potential to influence prairie dogs and associates. Application of lease stipulations (WR-LN-01 and WR-CSU-03) combined with siting criteria determined at the APD-stage would avoid involvement or minimize adverse influences to prairie dog colonies.

Burrowing owls have been documented within the past five years outside of parcel 6601, although no known nest locations occur in any of the proposed parcels. No ferruginous hawk nests are known to occur within the proposed lease parcels although a handful of historic nests have been documented within 0.50 miles of parcels 6556 and 6557. The combination of expanded NSO and TL (WR-NSO-02 and WR-TL-01) 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.

Great Basin spadefoot: BLM surveys conducted in 2009 documented this species approximately 0.25 miles from parcel 6560, although there is an historic location roughly 60 meters from the lease boundary. 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 (WR-CSU-02 and WR-CSU-06; see also 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 (6579, 6601, 6578, 6599, 6580, 6581, 6540, 6214, 6212, 6547, 6555, 6554, 6549, 6568, 6583, 6589, and 6584). 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 6560, 6573, 6566, 6574, 6552, 6550, 6588, 6551, and 6213. The most intensive development historically has occurred in and around parcels 6558, 6559, 6571, 6572, 6557, and 6556 (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.

Stipulations and Lease Notices to be Applied as Mitigation: Stipulations that reduce the duration or severity of impacts to special status species are discussed above, including WRFO RMP-derived No Surface Occupancy (WR-NSO-02), Controlled Surface Use (WR-CSU-02, WR-CSU-03, WR-CSU-05, and WR-CSU-06) and Timing Limitation (WR-TL-01, , WR-TL-03, WR-TL-05, and WR-TL-10) stipulations, as well as Lease Notice (WR-LN-01) (see Attachment C). All parcels are also subject to Exhibit CO-34 to alert lessee of the BLM's statutory obligation to protect threatened, endangered, candidate, and other special status plant or animal species and their habitat.

SPECIAL STATUS PLANT SPECIES

Affected Environment: The WRFO is currently home to 14 special status plant species; 2 federally threatened species, 1 federally proposed species, 1 federal candidate species, 11 BLM sensitive species, and potential habitat for 1 other federally listed species. The majority of the parcels do not contain any currently known special status plant species populations. However, most parcels fall within or near potential habitat, as defined by either soils or surface geologic formations, for most special status plant species. As a result, 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.

There are some parcels within known historic occurrences of several special status plant species. Parcel 6557 contains populations of Graham's penstemon, Rollin's crypthantha, debris milkvetch, and ligulate feverfew. Parcel 6556 also contains populations of Graham's penstemon, Rollin's cryptantha, and ligulate feverfew. Parcel 6573 contains populations of White River beardstongue, Graham's beardstongue, and buckwheat ephedra. All three parcels 6557, 6556, and 6573 also contain portions of the Raven Ridge ACEC which was designated for federal candidate species, BLM sensitive species, remnant vegetation associations, and paleontological values. Outside the ACEC, parcel 6560 contains ephedra buckwheat and parcel 6566 contains Rollin's cryptantha. There is also a White River penstemon population within 180 meters of Parcel 6566. Additionally, parcels 6571, 6560, 6560, 6573, 6583, 6589, 6584 all contain the Parachute Creek Member of the Green River formation, a highly suitable habitat for most special status plant species. The rest of the parcels contain soils known to support special status plant species or are within the required survey buffer area of suitable habitat.

Table 9. WRFO Special Status Plant Species

Name	Species	Status	Ranking	Habitat
Dudley Bluffs bladderpod	*Physaria congesta*	Threatened	G1/LT	Barren, white shale outcrops of the Green River and Uinta Formations (6,000-6,700 ft)
Dudley Bluffs Twinpod	*Physaria obcordata*	Threatened	G1/LT	Barren, white outcrops and steep slopes of the Parachute Creek Member of the Green River Formation (5,900-7,500 ft)
Ute lady's tresses orchid	*Spiranthes diluvialis*	Threatened	G2G3/LT	Sub-irrigated alluvial soils along streams and in open meadows in flood plains (4,500-6,800 ft)
White River beardtongue	*Penstemon scariosus var. albifluvis*	Candidate	G4T1/C	Sparsely vegetated shale slopes of the Green River Formation Desert in shrub and pinyon/juniper communities (5,000-7,200 ft)
Graham's beardtongue	*Penstemon grahamii*	Proposed	G2/S1	Talus slopes and knolls of the Green River Formation in sparsely vegetated desert scrub and pinyon/juniper (5,800-6,000 ft)

Debris milkvetch	*Astragalus detritalis*	Sensitive	G3/S2	Pinyon/juniper and mixed desert shrub, often on rocky soils ranging from sandy clays to sandy loams. Also alluvial terraces with cobbles (5,400-7,200 ft)
Duchesne milkvetch	*Astragalus duchesnensis*	Sensitive	G3/S1S2	Pinyon/juniper woodland and desert shrub, around sandstone or shale outcrops (4,600-6,400 ft)
Ligulate feverfew	*Bolophyta ligulata (Parthenium ligulatum)*	Sensitive	G3/S2	Barren shale knolls (5,400-6,500 ft)
Tufted cryptantha	*Cryptantha caespitosa (Oreocarya caespitosa)*	Sensitive	G3/S2	Sparsely vegetation shale knolls, with pinyon/juniper or sagebrush; usually with other cushion plants (5,500-8,100 ft)
Rollins cryptantha	*Cryptantha rollinsii (Oreocarya rollinsii)*	Sensitive	G4/S2	White shale slopes of the Green River Formation, in pinyon/juniper or cold desert shrub communities (5,300-5,800 ft)
Ephedra buckwheat	*Eriogonum ephedroides*	Sensitive	G3/S1	Shale and clay flats of slopes in saltbush, sage and pinyon/juniper habitats (4,900-6,900 ft)
Cathedral Bluff dwarf gentian	*Gentianella tortuosa*	Sensitive	G3/S1	Barren shale knolls and slopes of the Green River Formation (8,500-10,800 ft)
Narrow-stem gilia	*Aliciella stenothyrsa (Gilia stenothyrsa)*	Sensitive	G3/S1	Grassland, sagebrush, mountain mahogany or pinyon/juniper; silty to gravelly loam soils of the Green River formation (6,200 -8,600 ft)
Piceance bladderpod	*Lesquerella parviflora*	Sensitive	G2/S2	Shale outcrops of the Green River Formation, on ledges and slopes of canyons in open areas (6,200-8,600 ft)
Flaming Gorge evening primrose	*Oenothera acutissima*	Sensitive	G2/S2	Seasonally wet areas in meadows, depressions or along arroyos I mixed conifer forest to sagebrush, on sandy gravelly, or rocky soils (5,300-8,500 ft)
Cathedral Bluff Meadow- rue	*Thalictrum heliophilum*	Sensitive	G2/S2,FS	Sparsely vegetated, steep shale talus slopes of the Green River Formation (6,300-8,800 ft)

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 COAs within a certain distance of the proposed project. 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; 4) a buffer up to 660 feet may be applied around suitable and occupied habitat of special status plant species; 5) possible application of different COAs (e.g. protection fence construction, construction outside of the blooming season, third party oversight, etc.) to protect special status plant species.

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.

Stipulations to be Applied as 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. Potential mitigation applied to reduce impacts from lease development include No Surface Occupancy (WR-NSO-06, WR-NSO-08, and WR-NSO-09) and Controlled Surface Use (WR-CSU-02) stipulations (see Attachment C).

MIGRATORY BIRDS

Affected Environment: Executive Order (EO) 13186 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 both lower and upper elevation sagebrush shrublands (some interspersed with pinyon-juniper woodlands) (6560, 6573, 6559, 6566, 6574, 6558, 6571, 6572, 6557, 6556, 6601, 6599, 6578, 6580, 6581, 6212, 6214, 6540, 6551, 6213, 6550, 6588, 6589, and 6584); upper and lower elevation pinyon-juniper woodlands (6552, 6601, 6578, 6579, and 6583); upper elevation mountain shrub (Utah

serviceberry, mountain mahogany etc.) and Gambel oak (parcels 6583); and upper elevation mountain shrub with scattered inclusions of aspen (parcels 6547, 6555, 6554, 6549, and 6568). 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.

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. Higher elevation aspen likely supports 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: There would be no direct influence on migratory bird populations associated with the leasing of these parcels. Although specific influences on local bird populations associated with the development phase cannot be determined at this time development of these parcels would undoubtedly result in some amount of direct habitat loss and depending on the development period, may result in reductions in use or avoidance of otherwise functional habitats adjacent to developed areas (nest abandonment, displacement of birds and possible mortality). Efforts are made at the APD stage to locate facilities on habitat patch interfaces, in degraded vegetative types or adjacent to existing disturbances in addition to encouraging vegetative clearing outside the nesting season and prompt and effective reclamation. 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.

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.

Cumulative Effects: Although the lease sale itself would not contribute cumulatively, the potential for future disturbance may influence migratory bird species, depending on location and intensity of disturbance/development. Impacts to migratory bird species would be more accurately analyzed on a site-specific basis (APD-level environmental analysis) where appropriate mitigation would be applied.

Environmental Consequences of the No Action Alternative:

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

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

Stipulations to be Applied as Mitigation: None.

AQUATIC WILDLIFE

Affected Environment: Parcels 6559, 6551, and 6213 lie adjacent to or encompass portions 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) in addition to providing habitat for the endangered Colorado pikeminnow. Northern leopard frog, also a BLM-sensitive species, are found along the White River. Parcel 6552 encompasses approximately 0.25 miles of East Douglas Creek. The upper reaches of East Douglas Creek support populations of Colorado River cutthroat trout (BLM-sensitive species). Special status species are discussed in detail in the Special Status Animal Species section above.

Parcels 6547, 6555, 6554 and 6549 lie adjacent to or encompass portions of the West Fork of Good Spring Creek (ephemeral system). Twin Wash, an intermittent system, runs through parcels 6580 and 6578. Neither system is known to support higher order aquatic vertebrate populations (see Table 7 in Riparian section for detailed descriptions).

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: Neither Good Spring Creek or Twin Wash are known to support higher order vertebrate populations. See Special Status Animal Species section for discussions on special status aquatic wildlife. 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 to aquatic wildlife or important habitats 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. See discussions in the Special Status Animal Species and Wetland and Riparian Zones sections for potential impacts to these resources.

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.

Stipulations to be Applied as Mitigation: Stipulations 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 include nearly all of the big game (deer, elk) seasonal ranges (as classified by Colorado Parks and Wildlife). The higher elevation aspen and mountain shrub and aspen communities (parcels 6555, 6554, 6547, 6549, 6568, and 6552) represent important mule deer summer ranges and elk winter range. Parcels 6583, 6589, 6584, 6588, 6550, 6213, 6212, 6214, 6540, 6551, 6579, 6601, 6578, 6599, 6580, 6578, 6556, 6557, 6574, 6566, 6558, 6571, 6572, 6552, and portions of 6560 and 6573 are located in big game general winter range. These ranges fulfill their most important function during the later winter and early spring months prior to widespread plant emergence. Parcels 6601, 6560, 6573, 6559, and portions of 6599, 6581 are located lower elevation sagebrush shrublands and pinyon-juniper woodlands which encompass mule deer severe winter ranges. 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.

Many of the proposed lease parcels contain or lie adjacent to known/documented raptor nest sites. 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.

The mountain shrub (Gambel oak, serviceberry), big sagebrush and aspen matrix encompassed by parcels 6555, 6554, 6549, and 6547 may provide suitable nesting, brood-rearing and

wintering habitat for Columbian sharp-tailed grouse. In April 2012, Colorado Parks and Wildlife documented the first known Columbian sharp-tailed grouse lek in the White River Resource Area (~3.5 miles from parcel 6547). In general these birds tend to remain within a 1.2 mi (2 km) radius of the lek site throughout the spring and summer months. Winter use typically ranges from 1 to 4 mi (1.6 – 6.4 km) but movements can be in excess of 30 km depending on abundance of winter food resources (Hoffman 2001).

Small mammals that are likely to inhabit the lease parcels display broad ecological tolerance and are widely distributed throughout the region where suitable habitat is available. 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.

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.

Stipulations to be Applied as Mitigation: Stipulations to reduce the duration or severity of impacts to big game and raptors are presented integral with the discussions above. Potential stipulatons applied to subsequent lease development includes No Surface Occupancy (WR-NSO-03), and Timing Limitation (WR-TL-04, WR-TL-07, WR-TL-08 and WR-TL-09) stipulations (see Attachment C).

CULTURAL RESOURCES

Affected Environment: 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, temporary camps, and travelways. 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, generally Eligible for the National Register of Historic Places (NRHP), that can be particularly vulnerable to destruction related to development.

Thirty-two parcels have been proposed for the May 2013 Oil and Gas Lease Sale, which for analysis purposes can be clumped into three groups; the west group, the north group, and the Thornburgh group. The west group (parcels 6556, 6557, 6558, 6559, 6560, 6566, 6571, 6572, 6573, 6574, 6578. 6579, 6580, 6581, 6599, and 6601) occurs along the western boundary of the WRFO resource area, in a region generally thought to have a moderate to high potential for significant cultural resources. The west group also includes an isolated parcel, 6552, located along East Douglas Creek. The north group (parcels 6212, 6213, 6214, 6540, 6550, 6551, 6583, 6584, 6588, and 6589) occurs along the northern boundary of the WRFO resource area, in a region generally thought to have a low to moderate potential for significant cultural resources. The Thornburgh group (parcels 6547, 6549, 6554, 6555, and 6568) are also along the northern boundary of the field office; however they are clustered around the Thornburgh Battlefield/ Battle of Milk Creek site area. During Section 106 review, a Class I literature search and assessment were completed for each parcel group by WRFO Archaeological Technician Joseph Ramirez in August 2012. 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 west group of parcels (parcels 6552, 6556, 6557, 6558, 6559, 6560, 6566, 6571, 6572, 6573, 6574, 6578. 6579, 6580, 6581, 6599, 6601) occurs in 6th P.M. T5N R104W, T4N R102W, T4N R103W, T3N 103W, T3N 104W, T2N 103W, T2N 104W, T1N 102W, T1N 103W, T1N 104W, and T4S R101W. In total, the parcels encompass approximately 10,565.50 acres of BLM lands, 645.09 acres of private lands, and 0.78 acres of state lands. According to available data, these parcels contain approximately 833.31 acres of inventoried lands (not all done to current standards). Two multicomponent open camps, two late prehistoric/Ute open camps, seven prehistoric open camps, six prehistoric open lithic sites, two prehistoric sheltered camps, two formative era sheltered camps, one historic Hispanic shepherds' camp, one historic structure/foundation have been previously recorded in the parcels as well as two historic isolated finds, 10 prehistoric isolated finds, and one isolated find lacking the data to temporally place it.

Additionally, Parcel 6559 overlaps with the boundary of Canyon Pintado Historic District (Canyon Pintado). The parcel only overlaps with a fragment of the historic district, and in an area that does not have any individual sites located within it. Nine of the previously recorded sites are Not Eligible, one is a district that is Listed on the NRHP, three are Eligible, five are Needs Data, and one has 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 83.33 acres.

The north group of parcels (including 6212, 6213, 6214, 6540, 6550, 6551, 6583, 6584, 6588, and 6589) occurs in 6th P.M. 5N 98W, 4N 98W, 3N 96W, 3N 97W, 3N 98W, 2N 96W, and 2N 98W. In total, the parcels encompass approximately 2,716.00 acres of BLM lands, 1,203.06 of private lands, and 0.01 of state lands. According to available data, the parcels contain approximately 66.63 acres of previously inventoried lands, all of which may not have been done to current standards. There are no sites recorded within the parcels themselves, and only two sites are recorded within the entire sections in which the parcels lay. Based on the low amount of surveyed acres and the lack of recorded sites in the area, it would be misleading to estimate the density of potentially Eligible sites, as the sample size in entirely too small.

The Thornburgh group (including parcels 6547, 6549, 6554, 6555, and 6568) occurs in 6th P.M. T3N 93W and 1N 92W. In total, the parcels encompass approximately 1,630.35 acres of BLM lands and 1,076.79 acres of private lands. According to available data, the parcels contain approximately 394.95 acres of inventoried lands (not all done to current standards). Two historic road/trails and one historic communication line have been previously recorded. Overall, one site is recorded as Not Eligible, one is Eligible, and one is Needs Data. Based on these figures, the estimated density of potentially Eligible sites (Needs Data and Eligible) for this group of parcels is approximately 1 in 197.47 acres. The Thornburgh group of parcels are located surrounding the Thornburgh Battlefield/ Battle of Milk Creek site. However none of the parcels themselves overlap the boundary of the site (as it is listed on the National Register) or are within the viewshed (as mapped by the WRFO) of the site.

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 100 meters away from newly discovered sites potentially Eligible for NRHP listing, as is the standard WRFO procedure. With an estimated potentially Eligible site density of about 1 in 217.99 acres for the Thornburgh group, about 1 in 83.33 acres for the western group, and an undeterminable site density for the north 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.

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.

The surface use rights of a lessee are detailed in 43 CFR 3101.1-2; the relocation of proposed operations by up 200 meters to minimize adverse impacts to other resource values is considered to be consistent with those lease rights. All thirty-two parcels should be able to be leased, as the BLM expects that the relocation of operations or application of mitigation measures should be able to enable development within each parcel without adversely impacting potentially eligible cultural resources. Even Parcel 6559, which overlaps with Canyon Pintado, can be developed. If an APD was proposed within the boundaries of the district, the development could be moved up to 200 meters where it would be out of the district. As all the parcels should be able to be developed, using relocation or application of mitigation measures, the proposed lease sale will have no effect to historic properties.

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.

Stipulations to be Applied as Mitigation: All lands are subject to Exhibit CO-39 to protect cultural resources.

PALEONTOLOGICAL RESOURCES

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):

- Brown's Park Formation—PFYC 5— Miocene and Pliocene mammals (including mastodonts, rhinocerotids, antilocaprids, chalicotheres (Maropus), equines, camelids, and oreodonts) are found within this formation.

- Fort Union Sandstone—PFYC 3— Paleocene mammals, reptiles, amphibians, fish, invertebrates (including pelecypoda and gastropoda), and florae (including pollen) are common in this formation, which is also known to contain dinosaur bones, presumably redeposited from the erosion of earlier sediments or formations.

- 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.

- Glen Canyon Group—PFYC 5— Navajo Sandstone within portions of the Glen Canyon Group has produced Jurassic vertebrate and invertebrate ichnofossils in dune deposits. Largely unknown potential.

- Green River Formation—PFYC 5— These layers contain Eocene mammals, birds, reptiles, amphibians, fish, invertebrates (including non-marine mollusks and insects), various florae, and microfossils (including algal stromatolites).

- Green River Formation, Lower part—PFYC 5- This formation contains fish and ostracoda.

- Green River Formation, Parachute Creek Member—PFYC 5— Fossil reptiles (lizards, crocodilians, turtles), bats, insects (including eggs & larvae, scorpion ants, beetles, gnats, and mosquitoes), and plants (including algae reefs, ferns, horse-tails (Equisteum), seeds, flowers, fruit, oaks, maples, sassafras, figs, magnolias, etc.) are all found in these bands.

- Undifferentiated Green River Formation, Lower Part and Wasatch Formation—PFYC 5— A fossil-rich formation holding 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.

- 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 3a— 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.

- Modern Alluvium—PFYC 2— This sediment includes Holocene animals, like bison and horses.

- Morrison, Curtis, Entrada, and Glen Canyon Formations—PFYC 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).

- Sego Sandstone, Buck Tongue of Mancos Shale, and Castlegate Sandstone—PFYC 3b—Marine ichnological traces (other than Ophiomorpha) and possibly other marine fossils (see: Mancos Shale) are found in this formation.

- Uinta Formation—PFYC 5—Holds Eocene mammals (titanotheres, uintatheres, miacid carnivores, possibly others), reptiles (turtles and crocodilians), fish (vertebrae, spines, and scales, likely including Lepisosteidae), gastropods (high-spired and turitellid snails), insect larvae, and plants (leaves, wood, algae, etc.).

- Wasatch Formation, DeBeque —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.

- 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).

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: Twenty-five of the thirty-two May 2013 lease sale parcels predominately (defined as greater than 50 percent of the parcel) contains areas mapped as PFYC 4 to PFYC 5 formations and has a moderate to high potential to impact scientifically valuable fossil resources (Parcels 6212, 6547, 6549, 6550, 6552, 6554, 6555, 6556, 6557, 6558, 6559, 6560, 6566, 6568, 6571, 6572, 6573, 6574, 6578, 6579, 6580, 6583, 6584, 6588, and 6589). Locations for proposed oil or gas well pads, pipelines, and associated infrastructure will be subject to further analysis for the protection of paleontological resources within these twenty-five parcels. 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.

The remaining seven parcels are comprised primarily of PFYC 3 or lower formations, and as such, raise no special concerns (Parcels 6213, 6214, 6540, 6551, 6581, 6599, and 6601).

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.

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.

Stipulations and Lease Notices to be Applied as Mitigation: Parcels 6212, 6547, 6549, 6550, 6552, 6554, 6555, 6556, 6557, 6558, 6559, 6560, 6566, 6568, 6571, 6572, 6573, 6574, 6578, 6579, 6580, 6583, 6584, 6588, and 6589 are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values. Portions of parcel 6549 that are 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, within any of the parcels. The Thornburgh group of parcels are located surrounding the Thornburgh Battlefield/ Battle of Milk Creek site. However none of the parcels themselves overlap the boundary of the site (as it is listed on the National Register) or are within the viewshed (as mapped by the WRFO) of the site.

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.

Letters requesting consultation were mailed to officials of the Ute Tribe of the Uintah and Ouray Reservation, the Southern Ute Indian Tribe, the Ute Mountain Ute Tribe, and the Eastern Shoshone Tribe on September 18, 2012. Follow-up phone calls to the NAGPRA (Native American Graves Protection and Repatriation Act) Representatives of the Tribes were made on November 7, 2012. Conversations with the Southern Ute NAGPRA Representative identified no concerns with 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.

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.

Stipulations to be Applied as Mitigation: All leases are subject to Exhibit CO-39 to protect cultural resources. If new information is brought forward during the current or any future consultation with Native American tribes, additional terms and conditions may have to be negotiated or enforced to protect resource values.

VISUAL RESOURCES

Affected Environment: As part of the Visual Resource Management (VRM) program, the BLM has prepared and maintains an inventory of visual values on public lands within the WRFO, called the Visual Resource Inventory (VRI). The inventory is intended to identify the visual values of areas within the field office and assign them to an inventory class based on three factors: the scenic quality of an area; the sensitivity of the public to certain changes on the landscape; and a delineation of distance zones to indicate relative visibility of the landscape from primary travel routes and observation points. On the basis of the three factors, BLM-administered lands are placed into one of three VRI classes – Classes I through IV. VRI classes

II, III, and IV are determined by using a combination of scenic quality, sensitivity level and distance zones overlays to assign the proper class. In the relative scale of visual values, Class II has a higher level than Class III, which is moderately valued. Class IV is the least valued. Class I on the other hand is the most highly valued and is typically assigned to areas where a management decision has previously been made to maintain a natural landscape, such as Wilderness Areas or Wilderness Study Areas (WSA). The majority of parcels available for lease lie in VRI Class III and Class IV areas, particularly those parcels west of the Town of Rangely and parcels north of U.S. Highway 40, near the Town of Dinosaur. As few parcels also lie in VRI Class II and Class III areas, near the northern edge of the field office along the Hwy 13 corridor.

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 II and III areas, while scattered parcels lie within VRM 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.

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

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.

Stipulations to be Applied as Mitigation: None.

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.

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.

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.

Stipulations to be Applied as Mitigation: None.

SOCIAL AND ECONOMIC CONDITIONS

Affected Environment: The current social and economic conditions for the White River Field Office can be found in detail in the "Social and Economic Analysis Technical Report" in the Oil

and Gas Development Draft RMPA/EIS (Appendix G). This EA contains a narrower focus, dealing with the current lease sale.

Table 10. Profile of County Demographics, 2000-2010

Population	Moffat	Rio Blanco	Colorado	U.S.
Population (2010*)	13,519	6,494	5,029,196	303,965,272
Population (2000)	13,184	5,986	4,301,261	281,421,906
Population Percent Change (2000-2010*)	2.5%	8.5%	16.9%	8.0%

* The data in this table are calculated by ACS using annual surveys conducted during 2006-2010 and are representative of average characteristics during this period.
Data Sources: U.S. Department of Commerce. 2012. Census Bureau, American Community Survey Office, Washington, D.C.; U.S. Department of Commerce. 2000. Census Bureau, Systems Support Division, Washington, D.C.

Employees in the oil and gas sector within these counties earn an average of approximately $60,000 per year (US Census Bureau, County Business Patterns 2010).

Table 11 reports the average annual fluid minerals production for each county, including an estimated revenue value, figured using the average state wellhead prices from 2009: oil at $52.33/bbl and natural gas at $3.21/MCF (IPAA 2011). The production values are averaged over the past ten full years of production (2002-2011) (Colorado Oil and Gas Conservation Commission 2012).

Table 11. Average Annual Production and Revenue

Production & Revenue	Moffat	Rio Blanco	Total
Oil Production (Thousand bbl)	279	5,409	5,688
Oil Revenue ($Thousand)	14,579	283,068	297,647
Gas Production (MMCF)	18,182	53,992	72,174
Gas Revenue ($Thousand)	58,365	173,314	231,679

Federal oil and gas leases generate a one-time lease bonus bid as well as annual rents. The minimum competitive lease bid is $2.00 per acre. If parcels do not receive the minimum bid they may be leased later as noncompetitive leases that don't generate bonus bids. Within the White River Field Office, average bonus bids are approximately $160 per acre for oil and gas leases. Lease rental is $1.50 per acre per year for the first five years and $2.00 per acre per year thereafter. Typically, oil and gas leases expire after 10 years unless held by production. During the lease period annual lease rents continue until one or more wells are drilled that result in production and associated royalties. The royalty rate is 12.5 percent of revenue associated with mineral extraction on federal leases.

Federal mineral lease revenue for the State of Colorado is divided thusly

- 48.3 percent of all state mineral lease rent and royalty receipts are sent to the State Education Fund (to fund K-12 education), up to $65 million in FY 2009 – FY 2011,

and growing at four percent per year thereafter. Any amounts greater than the upper limit flow to the Higher Education Capital Fund.

- 10 percent of all state mineral lease rent and royalty receipts are sent to the Colorado Water Conservation Board (CWCB), up to $13 million in FY 2009, and growing at four percent per year thereafter. Any amounts greater than the upper limit flow to the Higher Education Capital Fund.
- 41.4 percent of all state mineral lease rent and royalty receipts are sent to the Colorado Department of Local Affairs, which then distributes half of the total amount received to a grant program, designed to provide assistance with offsetting community impacts due to mining, and the remaining half directly to the counties and municipalities originating the FML revenue or providing residence to energy employees.

Bonus payments are allocated separately from rents and royalties, in the following manner:

- 50 percent of all state mineral lease bonus payments are allocated to two separate higher education trust funds: the "Revenues Fund" and the "Maintenance and Reserve Fund". The Revenues Fund receives the first $50 million of bonus payments to pay debt service on outstanding higher education certificates of participation (COPs). The Maintenance and Reserve Fund receives 50 percent of any bonus payment allocations greater than $50 million. These funds are designated for controlled maintenance on higher education facilities and other purposes.
- 50 percent of state mineral lease bonus payments are allocated to the Local Government Permanent Fund, which is designed to accumulate excess funds in trust for distribution in years during which FML revenues decline by ten percent or more from the preceding year.

Environmental Consequences of the Proposed Action:

Direct and Indirect Effects: The direct effect of the Proposed Action would be the payments received, if any, from the leasing of the 17,246.79 acres of federal mineral estate, or a subset thereof. Indirect effects that might result, should exploration and development of the leases occur, could include increased employment opportunities related to the oil and gas and service support industry in the region as well as the economic benefits to federal, state, and county governments related to lease payments, royalty payments, severance taxes, and property taxes. Other effects could include the potential for a small increase in transportation, roads and noise disturbance associated with development. These effects would apply to all public land users in the project area.

It is, however, highly speculative to predict exact effects of this action, as there are no guarantees that the leases will receive bids, that any leased parcels will be developed, or that any developed parcels will produce any fluid minerals. A rough estimate for the amount to be raised in the lease sale can be determined using recent lease sales in the field office as a guideline. Approximately 95 percent of all acres proposed for leasing are bid upon, with an average bid of approximately $160 per acre. Using these values, the lease sale could result in $2,621,512 in total bonus bids, though the actual amount may vary widely. To predict the results of future development would be too speculative in nature. Any APD received would result in future NEPA analysis taking place, in which further socio-economic effects would be examined. Likewise, any negative

socio-economic effects resulting from disturbance and drilling on leased parcels would also be examined in future site-specific analysis. It is unknown when, where, how, or if future surface disturbing activities associated with oil and gas exploration and development such as well sites, roads, facilities, and associated infrastructure would be proposed. It is also not known how many wells, if any, would be drilled and/or completed, the types of technologies and equipment would be used and the types of infrastructure needed for production of oil and gas. Thus, the types, magnitude and duration of potential impacts cannot be precisely quantified at this time, and would vary according to many factors.

Cumulative Effects: Any possible future development of fluid mineral resources resulting from this lease sale would be in addition to the current level of development, as examined in the affected environment.

Environmental Consequences of the No Action Alternative:

Direct and Indirect Effects: Under the No Action Alternative the proposed parcels will not be leased and therefore there would be no impacts, however not leasing would result in a loss of revenue. These parcels could be leased at a future date.

Cumulative Effects: None.

Stipulations to be Applied as Mitigation: None.

RANGELAND MANAGEMENT

Affected Environment: The nominated parcels occur within 28 different livestock grazing allotments administered by the BLM WRFO. The grazing allotments and associated lease parcels are listed in Table 12.

Table 12. Grazing Allotments and Associated Lease Parcels

Allotment Name	Parcel #
Artesia	6556
	6557
	6558
	6571
	6572
	6601
Banta	6560
Banta Flats	6560
	6573
Basin Springs	6579
Blacks Gulch	6584
	6589
Bonanza	6556
	6557
K Ranch	6578
	6579
	6580
	6599
	6601
Keystone	6550
	6583
	6588
Kourlis H	6547
	6549
Moore WC	6568
Pinyon Ridge	6551
Raven Ridge	6560
	6571

Cassion	6578		6573
	6599	River	6213
Cathedral Bluffs	6552	Rosenlund	6568
Chokecherry	6583	Shavetail Gulch	6559
Coal Oil Basin	6558		6560
	6559		6573
Douglas Creek	6559	Smith/Crawford	6547
East Douglas Creek	6552		6554
Elk Springs	6212		6555
	6214	State Line	6560
	6540		6566
Greasewood	6551		6574
Jensen Cabin	6579	Theos T	6568
Johnson/Trujillo	6559		

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.

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.

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 carrying capacity of the native range, 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 small 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 28 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.

Stipulations to be Applied as Mitigation: None.

FLOODPLAINS, HYDROLOGY, AND WATER RIGHTS

Affected Environment: Water will be used for construction, drilling, completion and hydraulic fracturing operations as part of this action. Sources of water would be identified during project proposals and evaluated for impact to hydrology and water rights. Parcels that are in or near floodplains are described in the surface water quality section. Very few of the parcels are in floodplains and it is unlikely that infrastructure to develop the leases would impact floodplains or surface hydrology due to location specific design considerations.

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 lease parcel 6559 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 Deep Channel or in small watersheds tributary to the White River. Although lease development activities are expected to increase peak flows, it is unlikely that impacts would be measurable in the White or Yampa Rivers.

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. The source of this water will be evaluated for potential impacts to hydrology and water rights when the use is proposed.

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 Rivers, 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.

Stipulations to be Applied as 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: 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.

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.

Stipulations to be Applied as Mitigation: The stipulations specific to big game that are discussed in the Terrestrial Wildlife section are applicable to recreation.

AREAS OF CRITICAL ENVIRONMENTAL CONCERN

Affected Environment: There are three ACECs containing parcels proposed for lease: East Douglas Creek/Solider Creek, Raven Ridge, and the White River Riparian. The East Douglas Creek/Solider Creek ACEC was designated for biologically diverse plant communities, riparian habitat, and Colorado River cutthroat trout habitat. Parcel 6552 is almost entirely within this ACEC. Raven Ridge ACEC was designated for federal candidate species, BLM sensitive species, remnant vegetation associations, and paleontological values. Parcels 6557, 6556, and 6573 overlap the Raven Ridge ACEC as well as habitat for special status plant species. The White River Riparian ACEC was designated for important biologically diverse plant communities, bald eagle roosts, and the federally listed Colorado pikeminnow below the Taylor Draw Dam. Part of parcels 6551, 6213, and 6559 contain part of the White River Riparian ACEC. Currently, there are no special status plant species know to occur these parcels; 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 and Special Status Animal Species sections for further analysis.

For special status plant species, 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; 4) A buffer up to 660 feet may be applied around suitable and occupied habitat of special status plant species; 5) Possible application of different COAs (e.g. protection fence construction, construction outside of the blooming season, third party oversight, etc) to protect special status plant species.

Environmental Consequences of the Proposed Action:

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

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

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

Stipulations to be Applied as Mitigation: All parcels with ACECs are subject to WR-NSO-6 (Raven Ridge) or WR-CSU-2 (East Douglas Creek/Solider Creek and the White River Riparian).

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

Shoshone Tribe on September 18, 2012. Follow-up phone calls to each tribe were conducted on November 7, 2012.

INTERDISCIPLINARY REVIEW:

Name	Title	Area of Responsibility	Date Signed
Bob Lange	Hydrologist	Surface and Ground Water Quality; Floodplains, Hydrology, and Water Rights; Soils	10/13/2012
Zoe Miller	Ecologist	Areas of Critical Environmental Concern; Special Status Plant Species; Forest Management	10/17/2012
David Epstein	Economist	Socio-economics	10/19/2012
Chad Meister	Air Resource Scientist	Air Quality	10/26/2012
Kristin Bowen	Archaeologist	Cultural Resources; Native American Religious Concerns; Paleontological Resources	10/4/2012
Mary Taylor	Rangeland Management Specialist	Invasive, Non-Native Species; Vegetation; Rangeland Management	10/15/2012
Lisa Belmonte	Wildlife Biologist	Migratory Birds; Special Status Animal Species; Terrestrial and Aquatic Wildlife; Wetlands and Riparian Zones	10/18/2012
Paul Kelley	Supervisory Natural Resource Specialist	Hazardous or Solid Wastes	10/23/2012
Chad Schneckenburger	Outdoor Recreation Planner	Wilderness; Visual Resources; Access and Transportation; Recreation,	10/12/2012
Scott Nilson	Acting Fuels Specialist	Fire Management	10/16/2012
Paul Daggett	Mining Engineer	Geology and Minerals	10/13/2012
Stacey Burke	Realty Specialist	Realty	10/12/2012
Melissa J. Kindall	Range Technician	Wild Horse Management	10/16/2012
Paul Kelley	Supervisory Natural Resources Specialist	Project Lead – Document Preparer	10/23/2012
Heather Sauls	Planning & Environmental Coordinator	NEPA Compliance	10/25/2012

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

Attachment A
Pre-EA Parcels Proposed for Lease
May 2013 – Colorado Competitive Oil and Gas Lease Sale

PARCEL ID: 6552 SERIAL #:

T. 0040S., R 1010W., 6TH PM
Sec. 23: N2NE,NW;

Rio Blanco County
Colorado 240.000 Acres

PVT/BLM; CDO: WRRA

PARCEL ID: 6569 SERIAL #:

T. 0030N., R 0910W., 6TH PM
Sec. 15: SWNW;
Sec. 16: Lot 7,8;
Sec. 17: N2NE,E2NW,SESW,S2SE;
Sec. 20: NE;
Sec. 21: NW,N2SW;
Sec. 28: W2;

Moffat County
Rio Blanco County
Colorado 1119.860 Acres

PVT/BLM; CDO: WRRA

PARCEL ID: 6568 SERIAL #:

T. 0010N., R 0920W., 6TH PM
Sec. 5: Lot 2;
Sec. 5: SWNE,S2NW,S2;
Sec. 6: Lot 1-7;
Sec. 6: S2NE,SENW,E2SW,SE;
Sec. 7: Lot 1;
Sec. 7: N2NE,NENW;
Sec. 8: NWNW;

Rio Blanco County
Colorado 1310.090 Acres

PVT/BLM;BLM; CDO: WRRA

PARCEL ID: 6567 SERIAL #:

T. 0020N., R 0920W., 6TH PM
Sec. 6: S2NE,SENW,E2SW;

Rio Blanco County
Colorado 200.000 Acres

PVT/BLM; CDO: WRRA

PARCEL ID: 6544 SERIAL #:

T. 0020N., R 0930W., 6TH PM
Sec. 15: Lot 7;
Sec. 15: S2NW,NWSW;

Rio Blanco County
Colorado 134.290 Acres

PVT/BLM; CDO: WRRA

PARCEL ID: 6546 SERIAL #:

T. 0020N., R 0930W., 6TH PM
Sec. 13: Lot 1,3,5,8,12,13;
Sec. 13: N2,NWSW,NESE;
Sec. 14: Lot 9,24;
Sec. 14: SENE;

Rio Blanco County
Colorado 602.860 Acres

PVT/BLM; CDO: WRRA

PARCEL ID: 6553 SERIAL #:

T. 0020N., R 0930W., 6TH PM
Sec. 2: Lot 1-4;
Sec. 2: S2N2,S2;
Sec. 11: E2;
Sec. 12: W2NW,SW;

Rio Blanco County
Colorado 1199.160 Acres

PVT/BLM; CDO: WRRA

PARCEL ID: 6545 SERIAL #:

T. 0030N., R 0930W., 6TH PM
Sec. 21: Lot 1,3,5,7,10;
Sec. 21: N2,N2SE,NWSE;
Sec. 22: Lot 3,5,7,10,16-18;
Sec. 22: E2NE,NWNW,E2SE;

Rio Blanco County
Colorado 792.350 Acres

PVT/BLM; CDO: WRRA

PARCEL ID: 6547 SERIAL #:

T. 0030N., R 0930W., 6TH PM
Sec. 31: E2;
Sec. 32: W2W2,E2SW;

Rio Blanco County
Colorado 560.000 Acres

BLM; CDO: WRRA

PARCEL ID: 6549 SERIAL #:

T. 0030N., R 0930W., 6TH PM
Sec. 25: S2NE,SE;
Sec. 28: Lot 2,6,11,14,16;
Sec. 28: Lot 19,20,22,24;
Sec. 28: SW,N2SE;

Moffat County
Colorado 702.240 Acres

PVT/BLM; CDO: WRRA

PARCEL ID: 6554 SERIAL #:

T. 0030N., R 0930W., 6TH PM
Sec. 29: W2;

Rio Blanco County
Colorado 320.000 Acres

PVT/BLM; CDO: WRRA

PARCEL ID: 6555 SERIAL #:

T. 0030N., R 0930W., 6TH PM
Sec. 30: NENE,S2NE,SE;

Rio Blanco County
Colorado 280.000 Acres

BLM; CDO: WRRA

PARCEL ID: 6584 SERIAL #:

T. 0020N., R 0960W., 6TH PM
Sec. 1: Lot 5,6,14;
Sec. 1: SENE;

Rio Blanco County
Colorado 127.090 Acres

BLM; CDO: WRRA

PARCEL ID: 6583 SERIAL #:

T. 0030N., R 0960W., 6TH PM
Sec. 1: SWNE,N2SE;
Sec. 2: Lot 7;
Sec. 3: Lot 20,22,23,26;
Sec. 3: Lot 5-8,11,13,16,17;
Sec. 4: Lot 5-7;
Sec. 4: S2NE,SENW,E2SW,SE;
Sec. 9: N2,N2S2,S2SE;
Sec. 12: ALL;

Moffat County
Colorado 2159.960 Acres

PVT/BLM;BLM; CDO: WRRA

PARCEL ID: 6585 SERIAL #:

T. 0030N., R 0960W., 6TH PM
Sec. 5: Lot 5-8;
Sec. 5: S2N2,SW,W2SE;
Sec. 6: Lot 8-14;
Sec. 6: S2NE,SENW,E2SW,SE;
Sec. 7: Lot 5-7;
Sec. 7: E2NW,NESW;
Sec. 8: N2NE,SENE,NW,E2SW;

Moffat County
Colorado 1792.910 Acres

PVT/BLM;BLM; CDO: WRRA

PARCEL ID: 6586 SERIAL #:

T. 0030N., R 0960W., 6TH PM
Sec. 17: W2NE,SENE,E2NW,SE;
Sec. 18: SE;
Sec. 19: Lot 5-8;
Sec. 19: E2,E2W2;
Sec. 20: ALL;

Moffat County
Rio Blanco County
Colorado 1798.440 Acres

BLM; CDO: WRRA

PARCEL ID: 6587 SERIAL #:

T. 0030N., R 0960W., 6TH PM
Sec. 29: ALL;
Sec. 30: Lot 5-8;
Sec. 30: E2,E2W2;
Sec. 32: SW;
Sec. 33: N2NE,NENW;

Sec. 34: NWNW;

Rio Blanco County
Colorado 1599.600 Acres

PVT/BLM;BLM; CDO: WRRA

PARCEL ID: 6589 SERIAL #:

T. 0030N., R 0960W., 6TH PM
Sec. 13: ALL;
Sec. 22: Lot 1;
Sec. 23: Lot 3,5;
Sec. 23: SENE,S2;
Sec. 26: Lot 5,7,12;
Sec. 26: N2,W2SW;
Sec. 35: NENE,S2NE;

Moffat County
Rio Blanco County
Colorado 1645.950 Acres

BLM; CDO: WRRA

PARCEL ID: 6550 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

BLM; CDO: WRRA

PARCEL ID: 6588 SERIAL #:

T. 0030N., R 0970W., 6TH PM
Sec. 25: NWSE,SESE;
Sec. 25: SWNE,NW,E2SW;
Sec. 26: NWNE,W2NW,S2SE;
Sec. 27: E2SE;

Rio Blanco County
Colorado 640.000 Acres

PVT/BLM; CDO: WRRA

PARCEL ID: 6213 SERIAL #:

T. 0020N., R 0980W., 6TH PM
Sec. 2: Lot 5,6;

Rio Blanco County
Colorado 44.000 Acres

BLM; CDO: WRRA

PARCEL ID: 6551 SERIAL #:

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

Rio Blanco County
Colorado 70.100 Acres

BLM; CDO: WRRA

PARCEL ID: 6214 SERIAL #:

T. 0040N., R 0980W., 6TH PM
Sec. 9: Lot 7,8,11,13;
Sec. 9: N2SW,SWSW;
Sec. 16: Lot 4,5,12,13;
Sec. 16: W2W2;
Sec. 18: E2SW;

Moffat County
Colorado 667.190 Acres

BLM; CDO: WRRA

PARCEL ID: 6540 SERIAL #:

T. 0040N., R 0980W., 6TH PM
Sec. 17: SWNE,S2NW,N2SW,NWSE;
Sec. 18: NE,E2NW,N2SE,SWSE;

Moffat County
Colorado 600.000 Acres

BLM; CDO: WRRA

PARCEL ID: 6212 SERIAL #:

T. 0050N., R 0980W., 6TH PM
Sec. 27: SENE,N2N2,NESE;
Sec. 28: E2,E2NW,SWNW;
Sec. 28: N2SW,SWSW;
Sec. 29: S2NE;
Sec. 33: N2NE,SENE,W2NW,SE;
Sec. 35: NE,E2NW,E2SE;

Moffat County
Colorado 1560.000 Acres

BLM; CDO: WRRACDO: LSRA

PARCEL ID: 6559 SERIAL #:

T. 0010N., R 1020W., 6TH PM
Sec. 6: Lot 3,4;
Sec. 7: Lot 2-4,9-12;
Sec. 7: E2SW,SE;
Sec. 8: Lot 3, 8-13;
Sec. 8: S2;
Sec. 10: SW;
Sec. 18: Lot 1,2;
Sec. 18: E2NW,NE;
Sec. 23: ALL;
Sec. 24: N2;

Rio Blanco County
Colorado 2456.570 Acres

BLM; CDO: WRRA

PARCEL ID: 6575 SERIAL #:

T. 0020N., R 1020W., 6TH PM
Sec. 8: N2NESE;
Sec. 9: N2N2SW,N2NWSE;

Rio Blanco County
Colorado 40.000 Acres

BLM; CDO: WRRA

PARCEL ID: 6600 SERIAL #:

T. 0030N., R 1020W., 6TH PM
Sec. 7: S2NENE,SENE;
Sec. 8: EXCL WILLOW CREEK WSA;
Sec. 8: N2N2NW,S2N2NW;

Moffat County
Colorado 111.200 Acres

BLM; CDO: WRRA

PARCEL ID: 6581 SERIAL #:

T. 0040N., R 1020W., 6TH PM
Sec. 34: SESW,S2SE;
Sec. 35: SWSW;

Moffat County
Colorado 160.000 Acres

BLM; CDO: WRRA

PARCEL ID: 6576 SERIAL #:

T. 0050N., R 1020W., 6TH PM
Sec. 19: Lot 5-8;

Moffat County
Colorado 159.240 Acres

BLM; CDO: WRRA

PARCEL ID: 6560 SERIAL #:

T. 0010N., R 1030W., 6TH PM
Sec. 5: ALL;
Sec. 6: Lot 1-4;
Sec. 17: SESW;
Sec. 20: S2SE;
Sec. 21: NE,S2SE;
Sec. 25: N2NW;
Sec. 26: N2N2;
Sec. 27: N2NE;
Sec. 28: N2NW;
Sec. 29: S2N2,S2;
Sec. 31: Lot 5;
Sec. 31: NESW;

Rio Blanco County
Colorado 2110.710 Acres

BLM; CDO: WRRA

PARCEL ID: 6573 SERIAL #:

T. 0010N., R 1030W., 6TH PM
Sec. 4: ALL;
Sec. 14: NE;
Sec. 15: S2NE,S2;
Sec. 22: NW,S2SW,N2SE;
Sec. 23: NE,SW;
Sec. 24: W2;

Rio Blanco County
Colorado 2160.000 Acres

PVT/BLM;BLM; CDO: WRRA

PARCEL ID: 6558 SERIAL #:

T. 0020N., R 1030W., 6TH PM
Sec. 26: SWSW;
Sec. 27: ALL;
Sec. 28: ALL;
Sec. 35: W2,NWSE,S2SE;
Sec. 36: SWSW;

Rio Blanco County
Colorado 1800.000 Acres

BLM; CDO: WRRA

PARCEL ID: 6571 SERIAL #:

T. 0020N., R 1030W., 6TH PM
Sec. 18: Lot 1-4;
Sec. 18: E2,E2W2;
Sec. 20: ALL;
Sec. 21: ALL;
Sec. 22: W2NW,SW;

Rio Blanco County
Colorado 2157.600 Acres

PVT/BLM;BLM; CDO: WRRA

PARCEL ID: 6572 SERIAL #:

T. 0020N., R 1030W., 6TH PM
Sec. 7: Lot 1-4;
Sec. 7: E2,E2W2;
Sec. 15: SWSW;
Sec. 16: SWNE,NENW,NWSE;
Sec. 17: N2NW,S2SW;

Rio Blanco County
Colorado 956.960 Acres

PVT/BLM;BLM; CDO: WRRA

PARCEL ID: 6577 SERIAL #:

T. 0030N., R 1030W., 6TH PM
Sec. 10: SE;
Sec. 12: N2SW,SESW,SWSE;
Sec. 13: N2SW;
Sec. 14: SWNE,N2S2;
Sec. 15: SENE,NESE;
Sec. 17: W2;

Moffat County
Colorado 1000.000 Acres

PVT/BLM; CDO: WRRA

PARCEL ID: 6578 SERIAL #:

T. 0030N., R 1030W., 6TH PM
Sec. 1: Lot 1-4;
Sec. 2: Lot 1-4;
Sec. 3: SWNE,SESW,SESE;
Sec. 6: E2SE;

Moffat County
Colorado 521.000 Acres

PVT/BLM;BLM; CDO: WRRA

PARCEL ID: 6599 SERIAL #:

T. 0030N., R 1030W., 6TH PM
Sec. 9: EXCL ROW COC0128136;
Sec. 9: NESW,E2NWSW,S2SW;
Sec. 9: N2NW,E2SENW,SENW;

Moffat County
Colorado 278.406 Acres

;BLM; CDO: WRRA

PARCEL ID: 6580 SERIAL #:

T. 0040N., R 1030W., 6TH PM
Sec. 35: ALL;

Moffat County
Colorado 640.000 Acres

BLM; CDO: WRRA

PARCEL ID: 6566 SERIAL #:

T. 0010N., R 1040W., 6TH PM
Sec. 10: Lot 1-4;
Sec. 15: Lot 1-4;
Sec. 22: Lot 1-4;

Rio Blanco County
Colorado 460.160 Acres

BLM; CDO: WRRA

PARCEL ID: 6574 SERIAL #:

T. 0010N., R 1040W., 6TH PM
Sec. 3: Lot 1;

Rio Blanco County
Colorado 37.860 Acres

BLM; CDO: WRRA

PARCEL ID: 6556 SERIAL #:

T. 0020N., R 1040W., 6TH PM
Sec. 12: ALL;
Sec. 13: ALL;
Sec. 14: ALL;
Sec. 15: Lot 1-4;

Rio Blanco County

Colorado 2077.160 Acres

BLM; CDO: WRRA

PARCEL ID: 6557 SERIAL #:

T. 0020N., R 1040W., 6TH PM
Sec. 1: ALL;
Sec. 2: Lot 1-4;
Sec. 2: S2N2,S2;
Sec. 3: Lot 1-4;
Sec. 10: Lot 1-4;
Sec. 11: ALL;

Rio Blanco County
Colorado 2238.940 Acres

BLM; CDO: WRRA

PARCEL ID: 6570 SERIAL #:

T. 0020N., R 1040W., 6TH PM
Sec. 22: Lot 1-4;
Sec. 23: ALL;

Rio Blanco County
Colorado 796.120 Acres

PVT/BLM; CDO: WRRA

PARCEL ID: 6601 SERIAL #:

T. 0030N., R 1040W., 6TH PM
Sec. 1: S2N2,S2;
Sec. 12: NENE,SWNW,SW;
Sec. 13: S2NE,NW,S2;

Moffat County
Colorado 1280.000 Acres

PVT/BLM;BLM; CDO: WRRA

PARCEL ID: 6579 SERIAL #:

T. 0050N., R 1040W., 6TH PM
Sec. 25: SENE,S2NW,S2;
Sec. 26: Lot 9-14;
Sec. 35: Lot 7-12;

Moffat County
Colorado 868.240 Acres

BLM; CDO: WRRA

Attachment B
Parcels Available for Lease with Deferred Portions
May 2013 – Colorado Competitive Oil and Gas Lease Sale

PARCEL ID: 6212 SERIAL #:
AVAILABLE PORTION:

T. 0050N., R 0980W., 6TH PM
Sec. 28: SENW;
Sec. 28: N2SW,SWSW;
Sec. 33: W2NW, W2SE;

Moffat County
Colorado 320.00 Acres

BLM; CDO: WRRACDO: LSRA

DEFERRED PORTION:

T. 0050N., R 0980W., 6TH PM

Sec. 27: SENE,N2N2,NESE;	Greater Sage-grouse PPH/PGH
Sec. 28: N2NE, NENW, SWNW, S2NE, SE;	PPH/PGH, contiguous with mapped PPH/PGH
Sec. 29: SENE, SWNE;	PPH/PGH, contiguous with mapped PPH/PGH
Sec. 33: N2NE, SENE, E2SE;	PPH/PGH, contiguous with mapped PPH/PGH

Moffat County
Colorado 920.00 Acres

BLM; CDO: WRRA

PARCEL ID: 6213 SERIAL #:
AVAILABLE PORTION: ALL

T. 0020N., R 0980W., 6TH PM
Sec. 2: Lot 5,6;

Rio Blanco County
Colorado 44.000 Acres

BLM; CDO: WRRA

DEFERRED PORTION: NONE

PARCEL ID: 6214 SERIAL #:
AVAILABLE PORTION:

T. 0040N., R 0980W., 6TH PM
Sec. 9: Lot 7,8,11,13;
Sec. 9: N2SW,SWSW;
Sec. 16: Lot 4,5,12,13;
Sec. 16: W2W2;
Sec. 18: NESW;

Moffat County
Colorado 627.19 Acres

BLM; CDO: WRRA

DEFERRED PORTION:
T. 0040N., R 0980W., 6TH PM
Sec. 18: SESW; Sage-grouse PPH/PGH

Rio Blanco County
Colorado 40 Acres

BLM; CDO: WRRA

PARCEL ID: 6540 SERIAL #:
AVAILABLE PORTION:
T. 0040N., R 0980W., 6TH PM
Sec. 17: SWNE,SENW,NESW,NWSE;
Sec. 18: N2NE,E2NW,

Moffat County
Colorado 320.00 Acres

BLM; CDO: WRRA

DEFERRED PORTION:
T. 0040N., R 0980W., 6TH PM
Sec. 17: SWNW, NWSW; Sage-grouse PPH/PGH
Sec. 18: S2NE, N2SE, SWSE; Sage-grouse PPH/PGH

Rio Blanco County
Colorado 280.00 Acres

BLM; CDO: WRRA

PARCEL ID: 6544 SERIAL #:
AVAILABLE PORTION: NONE
T. 0020N., R 0930W., 6TH PM

Rio Blanco County
Colorado 0 Acres

PVT/BLM; CDO: WRRA

DEFERRED PORTION: ALL
T. 0020N., R 0930W., 6TH PM
Sec. 15: Lot 7; Jensen SWA/Columbian Sharp-tailed grouse nesting habitat
Sec. 15: S2NW,NWSW; Jensen SWA/Columbian Sharp-tailed grouse nesting habitat

Rio Blanco County
Colorado 134.290 Acres

BLM; CDO: WRRA

PARCEL ID: 6545 SERIAL #:
AVAILABLE PORTION: NONE
T. 0030N., R 0930W., 6TH PM

Rio Blanco County
Colorado 0 Acres

PVT/BLM; CDO: WRRA

DEFERRED PORTION: ALL
T. 0030N., R 0930W., 6TH PM

Sec. 22: Lot 10;	Columbian sharp-tailed grouse winter range
Sec. 22: E2NE, E2SE;	Columbian sharp-tailed grouse winter range

Rio Blanco County
Colorado 194.00 Acres

BLM; CDO: WRRA

PARCEL ID: 6546 SERIAL #:
AVAILABLE PORTION: NONE
T. 0020N., R 0930W., 6TH PM

Rio Blanco County
Colorado 0 Acres

PVT/BLM; CDO: WRRA

DEFERRED PORTION: ALL
T. 0020N., R 0930W., 6TH PM

Sec. 13: Lot 1,3,5,8,12,13;	Jensen SWA/Columbian sharp-tailed grouse nesting habitat
Sec. 13: N2,NWSW,NESE;	Jensen SWA/Columbian sharp-tailed grouse nesting habitat
Sec. 14: Lot 9,24;	Jensen SWA/Columbian sharp-tailed grouse nesting habitat
Sec. 14: SENE;	Jensen SWA/Columbian sharp-tailed grouse nesting habitat

Rio Blanco County
Colorado 602.860 Acres

BLM; CDO: WRRA

PARCEL ID: 6547 SERIAL #:
AVAILABLE PORTION: ALL
T. 0030N., R 0930W., 6TH PM
Sec. 31: E2;
Sec. 32: W2W2,E2SW;

Rio Blanco County
Colorado 560.000 Acres

BLM; CDO: WRRA

DEFERRED PORTION: NONE

PARCEL ID: 6549 SERIAL #:

AVAILABLE PORTION:
T. 0030N., R 0930W., 6TH PM
Sec. 28: Lot 2,6,11,14,16;
Sec. 28: Lot 19,20,22,24;
Sec. 28: SW,N2SE;

Rio Blanco County
Colorado 462.24 Acres

PVT/BLM; CDO: WRRA

DEFERRED PORTION:
T. 0020N., R 0930W., 6TH PM
Sec. 25: S2NE,SE; Jensen SWA

Rio Blanco County
Colorado 240.00 Acres

BLM; CDO: WRRA

PARCEL ID: 6550 SERIAL #:
AVAILABLE PORTION:
T. 0030N., R 0970W., 6TH PM
Sec. 27: SWSE;

Rio Blanco County
Colorado 40 Acres

BLM; CDO: WRRA

DEFERRED PORTION:
T. 0030N., R 0970W., 6TH PM
Sec 25: N2NE,SENE,NESE, SWSE; potential LWC
Sec. 27: N2,SW, NWSE; Sage-grouse PPH/PGH

Rio Blanco County
Colorado 720 Acres

BLM; CDO: WRRA

PARCEL ID: 6551 SERIAL #:
AVAILABLE PORTION: ALL
T. 0030N., R 0980W., 6TH PM
Sec. 30: Lot 10,12;

Rio Blanco County
Colorado 70.100 Acres

BLM; CDO: WRRA

DEFERRED PORTION: NONE

PARCEL ID: 6552 SERIAL #:
AVAILABLE PORTION: ALL
T. 0040S., R 1010W., 6TH PM
Sec. 23: N2NE,NW;

Rio Blanco County
Colorado 240.000 Acres

PVT/BLM; CDO: WRRA

DEFERRED PORTION: NONE

PARCEL ID: 6553 SERIAL #:
AVAILABLE PORTION: NONE
T. 0020N., R 0930W., 6TH PM

Rio Blanco County
Colorado 0 Acres

PVT/BLM; CDO: WRRA

DEFERRED PORTION: ALL
T. 0020N., R 0930W., 6TH PM
Sec. 2: Lot 1-4; Jensen SWA/Columbian Sharp-tailed grouse nesting habitat
Sec. 2: S2N2,S2; Jensen SWA/Columbian Sharp-tailed grouse nesting habitat
Sec. 11: E2; Jensen SWA/Columbian Sharp-tailed grouse nesting habitat
Sec. 12: W2NW,SW; Jensen SWA/Columbian Sharp-tailed grouse nesting habitat

Rio Blanco County
Colorado 1199.160 Acres

BLM; CDO: WRRA

PARCEL ID: 6554 SERIAL #:
AVAILABLE PORTION: ALL
T. 0030N., R 0930W., 6TH PM
Sec. 29: W2;

Rio Blanco County
Colorado 320.000 Acres

PVT/BLM; CDO: WRRA

DEFERRED PORTION: NONE

PARCEL ID: 6555 SERIAL #:
AVAILABLE PORTION: ALL
T. 0030N., R 0930W., 6TH PM
Sec. 30: NENE,S2NE,SE;

Rio Blanco County

Colorado 280.000 Acres

BLM; CDO: WRRA

DEFERRED PORTION: NONE

PARCEL ID: 6556 SERIAL #:
AVAILABLE PORTION:
T. 0020N., R 1040W., 6TH PM
Sec. 12: S2NE, NW, SW, NWSE;
Sec. 13: NWNW;
Sec. 14: N2NE;

Rio Blanco County
Colorado 600.00 Acres

BLM; CDO: WRRA

DEFERRED PORTION:
T. 0020N., R 1040W., 6TH PM

Sec. 12: S2SE, NESE, N2NE;	potential LWC, sage-grouse PGH
Sec. 13: E2, SW, S2NW, NENW;	potential LWC, sage-grouse PGH
Sec. 14: SWSE, SW, W2SE, NESE, S2NE, NW;	potential LWC, sage-grouse PGH
Sec. 15: Lot 1-4;	sage-grouse PGH

Rio Blanco County
Colorado 1477.16 Acres

BLM; CDO: WRRA

PARCEL ID: 6557 SERIAL #:
AVAILABLE PORTION:
T. 0020N., R 1040W., 6TH PM
Sec. 1: SWSW;
Sec. 2:S2;
Sec. 3: Lot 2-4;
Sec. 10: Lot 1;
Sec. 11: E2, E2W2, NWNW;

Rio Blanco County
Colorado 1039.88 Acres

BLM; CDO: WRRA

DEFERRED PORTION:
T. 0020N., R 1040W., 6TH PM

Sec. 1: N2, N2SW, SE, SESW	Sage-grouse PGH
Sec. 2: Lot 1-4;	Sage-grouse PGH
Sec. 2: S2N2;	Sage-grouse PGH
Sec. 3: Lot 1;	Sage-grouse PGH
Sec. 10: Lot 2-4;	Sage-grouse PGH
Sec. 11:W2SW, SWNW;	Sage-grouse PGH

Rio Blanco County
Colorado 1199.06 Acres

BLM; CDO: WRRA

PARCEL ID: 6558 SERIAL #:
AVAILABLE PORTION:

T. 0020N., R 1030W., 6TH PM
Sec. 26: SWSW;
Sec. 27: E2, E2NW, NESW;
Sec. 35: W2,NWSE,S2SE;
Sec. 36: SWSW;

Rio Blanco County
Colorado 960.00 Acres

BLM; CDO: WRRA

DEFERRED PORTION:

T. 0020N., R 1030W., 6TH PM potential LWC
Sec. 27: W2W2, SESW; potential LWC
Sec. 28: ALL; potential LWC

Rio Blanco County
Colorado 840.00 Acres

BLM; CDO: WRRA

PARCEL ID: 6559 SERIAL #:
AVAILABLE ACRES:

T. 0010N., R 1020W., 6TH PM
Sec. 6: Lot 3,4;
Sec. 7: Lot 2-4,10-12;
Sec. 7: E2SW,SE;
Sec. 8: Lot 8-13;
Sec. 8: S2;
Sec. 10: SW;
Sec. 18: Lot 1,2;
Sec. 18: E2NW,NE;
Sec. 23: ALL;
Sec. 24: N2;

Rio Blanco County
Colorado 2378.59 Acres

BLM; CDO: WRRA

DEFERRED PORTION:

T. 0010N., R 1020W., 6TH PM
Sec. 7: Lot 9 White River 100 year floodplain – Colorado Pikeminnow occupied habitat
Sec. 8: Lot 3

Rio Blanco County
Colorado 77.98 Acres

PARCEL ID: 6560 SERIAL #:
AVAILABLE PORTION:
T. 0010N., R 1030W., 6TH PM
Sec. 5: SW, W2SE, SESE, S2NW, NWNW;
Sec. 6: Lot 1-4;
Sec. 17: SESW;
Sec. 20: S2SE;
Sec. 21: NE,S2SE;
Sec. 28: NENW;
Sec. 29: SWNW;
Sec. 31: Lot 5;
Sec. 31: NESW;

Rio Blanco County
Colorado 1030.71 Acres

BLM; CDO: WRRA

DEFERRED PORTION:
T. 0010N., R 1030W., 6TH PM
Sec. 5: NE, NENW, NESE potential LWC
Sec. 25: N2NW; potential LWC
Sec. 26: N2N2; potential LWC
Sec. 27: N2NE; potential LWC
Sec. 28: NWNW; potential LWC
Sec. 29: S2NE,S2, SENW; potential LWC

Rio Blanco County
Colorado 1080.00 Acres

BLM; CDO: WRRA

PARCEL ID: 6566 SERIAL #:
AVAILABLE PORTION: ALL
T. 0010N., R 1040W., 6TH PM
Sec. 10: Lot 1-4;
Sec. 15: Lot 1-4;
Sec. 22: Lot 1-4;

Rio Blanco County
Colorado 460.160 Acres

BLM; CDO: WRRA

DEFERRED PORTION: NONE

PARCEL ID: 6567 SERIAL #:
AVAILABLE PORTION:NONE
T. 0020N., R 0920W., 6TH PM

Rio Blanco County
Colorado 0 Acres

PVT/BLM; CDO: WRRA

DEFERRED PORTION: ALL
T. 0020N., R 0920W., 6TH PM
Sec. 6: S2NE,SENW,E2SW; Thornburgh Battlefield viewshed, Columbian sharp-tailed grouse winter range

Rio Blanco County
Colorado 200.000 Acres

BLM; CDO: WRRA

PARCEL ID: 6568 SERIAL #:
AVAILABLE PORTION: ALL
T. 0010N., R 0920W., 6TH PM
Sec. 5: Lot 2;
Sec. 5: SWNE,S2NW,S2;
Sec. 6: Lot 1-7;
Sec. 6: S2NE,SENW,E2SW,SE;
Sec. 7: Lot 1;
Sec. 7: N2NE,NENW;
Sec. 8: NWNW;

Rio Blanco County
Colorado 1310.090 Acres

PVT/BLM;BLM; CDO: WRRA

DEFERRED PORTION: NONE

PARCEL ID: 6569 SERIAL #:
AVAILABLE PORTION: NONE
T. 0030N., R 0910W., 6TH PM

Moffat County
Rio Blanco County
Colorado 0 Acres

PVT/BLM; CDO: WRRA

DEFERRED PORTION: ALL
T. 0030N., R 0910W., 6TH PM
Sec. 15: SWNW; Sage-grouse PPH/PGH, Columbian sharp-tailed grouse winter range
Sec. 16: Lot 7,8; Sage-grouse PPH/PGH, Columbian sharp-tailed grouse winter range
Sec. 17: N2NE,E2NW,SESW,S2SE; Sage-grouse PPH/PGH, Columbian sharp-tailed grouse winter range
Sec. 20: NE; Sage-grouse PPH/PGH, Columbian sharp-tailed grouse winter range
Sec. 21: NW,N2SW; Sage-grouse PPH/PGH, Columbian sharp-tailed grouse winter range
Sec. 28: W2; Sage-grouse PPH/PGH, Columbian sharp-tailed grouse winter range

Rio Blanco/Moffat County
Colorado 919.86 Acres

PARCEL ID: 6570 SERIAL #:
AVAILABLE PORTION: NONE
T. 0020N., R 1040W., 6TH PM

Rio Blanco County
Colorado 796.120 Acres

PVT/BLM; CDO: WRRA

DEFERRED PORTION: ALL
T. 0020N., R 1040W., 6TH PM
Sec. 22: Lot 1-4; Sage-grouse PGH
Sec. 23: ALL; Sage-grouse PGH

Rio Blanco County
Colorado 796.120 Acres

PARCEL ID: 6571 SERIAL #:
AVAILABLE PORTION:
T. 0020N., R 1030W., 6TH PM
Sec. 20: N2NW, SWNW;
Sec. 22: W2NW,N2SW, SESW;

Rio Blanco County
Colorado 320.00 Acres

PVT/BLM;BLM; CDO: WRRA

DEFERRED PORTION:
T. 0020N., R 1030W., 6TH PM
Sec. 18: Lot 1-4; potential LWC
Sec. 18: E2,E2W2; potential LWC
Sec. 20: E2, SW, SENW; potential LWC
Sec. 21: ALL; potential LWC
Sec. 22: SWSW; potential LWC

Rio Blanco County
Colorado 1837.60 Acres

PVT/BLM;BLM; CDO: WRRA

PARCEL ID: 6572 SERIAL #:
AVAILABLE PORTION:
T. 0020N., R 1030W., 6TH PM
Sec. 15: SWSW;
Sec. 16:,NWSE;
Sec. 17:SESW ;

Rio Blanco County
Colorado 120.00 Acres

PVT/BLM;BLM; CDO: WRRA

DEFERRED PORTION:
T. 0020N., R 1030W., 6TH PM

Sec. 7: Lot 1-4;	potential LWC, Sage-grouse PGH
Sec. 7: E2,E2W2;	potential LWC
Sec. 16: SWNE,NENW;	potential LWC
Sec. 17:N2NW, SWSW;	potential LWC

Rio Blanco County
Colorado 836.96 Acres

BLM; CDO: WRRA

PARCEL ID: 6573 SERIAL #:
AVAILABLE PORTION:
T. 0010N., R 1030W., 6TH PM
Sec. 4: S2S2, NESE, SENE;
Sec. 22:,N2SE;
Sec. 23: S2NE, NENE, NWSW;
Sec. 24: N2NW, SWNW;

Rio Blanco County
Colorado 640.00 Acres

PVT/BLM;BLM; CDO: WRRA

DEFERRED PORTION:
T. 0010N., R 1030W., 6TH PM

Sec. 4: N2N2, S2NW, NWSE, SWNE, N2SW;	potential LWC
Sec. 14: NE;	potential LWC
Sec. 15: S2NE,S2;	Sage-grouse PGH
Sec. 22: S2SW, NW	Sage-grouse PGH
Sec. 23: S2SW, NESW, NWNE;	potential LWC, Sage-grouse PGH
Sec. 24:SW, SENW;	potential LWC

Rio Blanco County
Colorado 1520.00 Acres

BLM; CDO: WRRA

PARCEL ID: 6574 SERIAL #:
AVAILABLE PORTION: ALL
T. 0010N., R 1040W., 6TH PM
Sec. 3: Lot 1;

Rio Blanco County
Colorado 37.860 Acres

BLM; CDO: WRRA

DEFERRED PORTION: NONE

PARCEL ID: 6575 SERIAL #:
AVAILABLE PORTION: NONE
T. 0020N., R 1020W., 6TH PM

Rio Blanco County
Colorado 0 Acres

BLM; CDO: WRRA

DEFERRED PORTION: ALL
T. 0020N., R 1020W., 6TH PM
Sec. 8: N2NESE; potential LWC
Sec. 9: N2N2SW,N2NWSE; potential LWC

Rio Blanco County
Colorado 40 Acres

BLM; CDO: WRRA

PARCEL ID: 6576 SERIAL #:
AVAILABLE ACRES: NONE
T. 0050N., R 1020W., 6TH PM

Moffat County
Colorado 0 Acres

BLM; CDO: WRRA

DEFERRED PORTION: ALL
T. 0050N., R 1020W., 6TH PM
Sec. 19: Lot 5-8; Sage-grouse PPH (Blue Mtn)

Moffat county
Colorado 159.240 Acres
BLM; CDO: WRRA

PARCEL ID: 6577 SERIAL #:
AVAILABLE PORTION: NONE
T. 0030N., R 1030W., 6TH PM

Moffat County
Colorado 0 Acres

PVT/BLM; CDO: WRRA

DEFERRED PORTION: ALL
T. 0030N., R 1030W., 6TH PM
Sec. 10: SE; Sage-grouse PGH

Sec. 12: N2SW,SESW,SWSE; Sage-grouse PGH
Sec. 13: N2SW; Sage-grouse PGH
Sec. 14: SWNE,N2S2; Sage-grouse PGH
Sec. 15: SENE,NESE; Sage-grouse PGH
Sec. 17: W2; Sage-grouse PGH

Moffat County
Colorado 1000.000 Acres

BLM; CDO: WRRA

PARCEL ID: 6578 SERIAL #:
AVAILABLE PORTION:
T. 0030N., R 1030W., 6TH PM
Sec. 1: Lot 1-4;
Sec. 2: Lot 1-4;
Sec. 3: SWNE,SESW,SESE;

Moffat County
Colorado 440.00 Acres

PVT/BLM;BLM; CDO: WRRA

DEFERRED PORTION:

T. 0030N., R 1030W., 6TH PM
Sec. 6: E2SE;

Moffat County
Colorado 80 Acres Public Water Supplies

PVT/BLM;BLM; CDO: WRRA

PARCEL ID: 6579 SERIAL #:
AVAILABLE ACRES:
T. 0050N., R 1040W., 6TH PM
Sec. 25: S2NW,S2;
Sec. 26: Lot 9-14;
Sec. 35: Lot 7-12;

Moffat County
Colorado 828.240 Acres

BLM; CDO: WRRA

DEFERRED PORTION:
T. 0050N., R 1040W., 6TH PM
Sec. 25: SENE Sage-grouse PPH

Moffat County
Colorado 40 Acres

BLM; CDO: WRRA

PARCEL ID: 6580 SERIAL #:
AVAILABLE PORTION: ALL
T. 0040N., R 1030W., 6TH PM
Sec. 35: ALL;

Moffat County
Colorado 640.000 Acres

BLM; CDO: WRRA

DEFERRED PORTION: NONE

PARCEL ID: 6581 SERIAL #:
AVAILABLE PORTION: ALL
T. 0040N., R 1020W., 6TH PM
Sec. 34: SESW,S2SE;
Sec. 35: SWSW;

Moffat County
Colorado 160.000 Acres

BLM; CDO: WRRA

DEFERRED PORTION: NONE

PARCEL ID: 6583 SERIAL #:
AVAILABLE PORTION
T. 0030N., R 0960W., 6TH PM
Sec. 3:Lot 22, 23;
Sec. 3: Lot 6-8, 11;
Sec. 4: Lot 5-7;
Sec. 4: S2NE, SENW, NESW, NWSE;
Sec. 12: S2NE, NWNE, E2NW, NWNW, N2SE, SESE;

Moffat County
Colorado 827.77 Acres

PVT/BLM;BLM; CDO: WRRA

DEFERRED PORTION:
T. 0030N., R 0960W., 6TH PM

Sec. 1: SWNE,N2SE;	Sage-grouse PPH/PGH
Sec. 2: Lot 7;	Sage-grouse PPH/PGH
Sec. 3: Lot 5, 13, 16, 17, 20, 22, 23, 26	Potential LWC, Sage-grouse PGH
Sec. 4:SESW, S2SE, NESE	Sage-grouse PGH
Sec. 9: S2NE, SE, N2SW, N2,N2S2,S2SE;	potential LWC, Sage-grouse PGH/PPH
Sec. 12: SW, SWNW, SWSE, NENE;	potential LWC, Sage-grouse PGH/PPH

Moffat County
Colorado 1332.19 Acres

BLM; CDO: WRRA

PARCEL ID: 6584 SERIAL #:
AVAILABLE PORTION: ALL
T. 0020N., R 0960W., 6TH PM
Sec. 1: Lot 5,6,14;
Sec. 1: SENE;

Rio Blanco County
Colorado 127.090 Acres

BLM; CDO: WRRA

DEFERRED PORTION: NONE

PARCEL ID: 6585 SERIAL #:
AVAILABLE PORTION: NONE
T. 0030N., R 0960W., 6TH PM

Moffat County
Colorado 0 Acres

PVT/BLM;BLM; CDO: WRRA

DEFERRED PORTION: ALL
T. 0030N., R 0960W., 6TH PM

Sec. 5: Lot 5-8;	potential LWC
Sec. 5: S2N2, W2SE, E2SW, NWSW, SWSW;	potential LWC, Sage-grouse PGH
Sec. 6: Lot 8-14;	potential LWC, Sage-grouse PGH
Sec. 6: S2NE,SENW,E2SW,SE;	potential LWC, Sage-grouse PGH/PPH
Sec. 7: Lot 5-7;	Sage-grouse PGH/PPH
Sec. 7: E2NW,NESW;	Sage-grouse PGH/PPH
Sec. 8: N2NE, NENW;	potential LWC, Sage-grouse PGH/PPH
Sec. 8: SENE,W2NW, SENW, E2SW;	Sage-grouse PGH/PPH

Moffat County
Colorado 1792.91 Acres

BLM; CDO: WRRA

PARCEL ID: 6586 SERIAL #:
AVAILABLE PORTION: NONE
T. 0030N., R 0960W., 6TH PM

Moffat County
Rio Blanco County
Colorado 0 Acres

BLM; CDO: WRRA

DEFERRED PORTION: ALL
T. 0030N., R 0960W., 6TH PM

Sec. 17: W2NE,SENE,E2NW,SE;	Sage-grouse PGH/PPH
Sec. 18: E2SE, NWSE;	Sage-grouse PGH/PPH

Sec. 18: SWSE;	potential LWC, Sage-grouse PGH/PPH
Sec. 19: Lot 5-8;	potential LWC, Sage-grouse PGH/PPH
Sec. 19: E2,E2W2;	potential LWC, Sage-grouse PGH/PPH
Sec. 20: S2, S2NW, NWNW;	potential LWC, Sage-grouse PGH/PPH
Sec. 20: NE, NENW;	Sage-grouse PGH

Rio Blanco County/ Moffat County
Colorado 1798.44 Acres

BLM; CDO: WRRA

PARCEL ID: 6587 SERIAL #:
AVAILABLE ACRES: NONE

T. 0030N., R 0960W., 6TH PM

Rio Blanco County
Colorado 0 Acres

PVT/BLM;BLM; CDO: WRRA

DEFERRED PORTION:

T. 0030N., R 0960W., 6TH PM

Sec. 29: ALL;	potential LWC
Sec. 30: E2, NENW, SENW, NESW, SESW;	potential LWC, Sage-grouse PGH/PPH
Sec. 30: Lot 5, 6, 7, 8;	potential LWC, Sage-grouse PPH
Sec. 32: SW;	potential LWC
Sec. 33: N2NE,NENW;	potential LWC
Sec. 34: NWNW;	potential LWC

Rio Blanco County
Colorado 1599.600 Acres

BLM; CDO: WRRA

PARCEL ID: 6588 SERIAL #:
AVAILABLE PORTION:

T. 0030N., R 0970W., 6TH PM
Sec. 26: W2NW,
Sec. 27: E2SE;

Rio Blanco County
Colorado 160.00 Acres

PVT/BLM; CDO: WRRA

DEFERRED PORTION:

T. 0030N., R 0970W., 6TH PM

Sec. 25: NWSE,SESE;	Sage-grouse PPH
Sec. 25: SWNE,NW,E2SW;	Sage-grouse PGH/PPH
Sec. 26: NWNE, S2SE;	Sage-grouse PPH

Rio Blanco County
Colorado 480.00 Acres

PVT/BLM; CDO: WRRA

PARCEL ID: 6589 SERIAL #:
AVAILABLE PORTION:
T. 0030N., R 0960W., 6TH PM
Sec. 26: Lot 5,7,12;
Sec. 26: NE, S2NW,W2SW;
Sec. 35: NENE,S2NE;

Moffat County
Rio Blanco County
Colorado 514.17 Acres

BLM; CDO: WRRA

DEFERRED PORTION:
T. 0030N., R 0960W., 6TH PM

Sec. 13: ALL;	potential LWC
Sec. 22: Lot 1;	potential LWC
Sec. 23: Lot 3,5;	potential LWC
Sec. 23: SENE,S2;	potential LWC
Sec. 26:N2NW;	potential LWC

Rio Blanco County
Colorado 1115.34 Acres

BLM; CDO: WRRA

PARCEL ID: 6599 SERIAL #:
AVAILABLE ACRES:
T. 0030N., R 1030W., 6TH PM
Sec. 9: EXCL ROW COC0128136;
Sec. 9: NENW,E2SENW,SENW;

Moffat County
Colorado 100.00 Acres

;BLM; CDO: WRRA

DEFERRED PORTION:
T. 0030N., R 1030W., 6TH PM
Sec. 9: NWNW,NESW,E2NWSW,S2SW; Public Water Supplies, Sage-grouse PGH

Moffat County
Colorado 178.406 Acres

BLM; CDO: WRRA

PARCEL ID: 6600 SERIAL #:
AVAILABLE ACRES: NONE
T. 0030N., R 1020W., 6TH PM

Moffat County
Colorado 0 Acres

BLM; CDO: WRRA

DEFERRED PORTION: ALL

T. 0030N., R 1020W., 6TH PM

Sec. 7: S2NENE,SENE;	Sage-grouse PGH
Sec. 8: EXCL WILLOW CREEK WSA;	Sage-grouse PGH
Sec. 8: N2N2NW,S2N2NW;	Sage-grouse PGH

Moffat County
Colorado 111.200 Acres

BLM; CDO: WRRA

PARCEL ID: 6601 SERIAL #:
AVAILABLE PORTION:

T. 0030N., R 1040W., 6TH PM

Sec. 1: S2NW,S2SE,NWSW,SESW;
Sec. 12: NENE, S2SW;
Sec. 13: S2NE,NW,S2;

Moffat County
Colorado 920.00 Acres

PVT/BLM;BLM; CDO: WRRA

DEFERRED PORTION:

T. 0030N., R 1040W., 6TH PM

Sec. 1: S2NE,N2SE,NESW,SWSW	Public Water Supplies, Sage-grouse PGH
Sec. 12: SWNW, N2SW;	Public Water Supplies, Sage-grouse PGH

Moffat County
Colorado 360.00 Acres

PVT/BLM;BLM; CDO: WRRA

Attachment C
Parcels Available for Lease with Applied Stipulations
May 2013 – Colorado Competitive Oil and Gas Lease Sale

PARCEL ID: 6212 SERIAL #:
T. 0050N., R 0980W., 6TH PM
Sec. 28: SENW;
Sec. 28: N2SW,SWSW;
Sec. 33: W2NW, W2SE;

Moffat County
Colorado 320.00 Acres

BLM; CDO: WRRACDO: LSRA

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.

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.

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

T. 0050N., R 0980W., 6TH PM
Sec. 28: SENW;
Sec. 33: W2SE;

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

T. 0050N., R 0980W., 6TH PM
Sec. 33: SWSE;

All lands are subject to Exhibit WR-NSO-09 to protect BLM Sensitive Plants and Remnant Vegetation Associations (RVA).

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

T. 0050N., R 0980W., 6TH PM
Sec. 28: SENW, N2SW, SWSW;
Sec. 33: NWNW;

PARCEL ID: 6213 SERIAL #:
T. 0020N., R 0980W., 6TH PM

Sec. 2: Lot 5,6;

Rio Blanco County
Colorado 44.000 Acres

BLM; CDO: WRRA

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

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 WR-NSO-09 to protect BLM Sensitive Plants and Remnant Vegetation Associations (RVA).

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

T. 0020N., R 0980W., 6TH PM
Sec. 2: Lot 6;

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

T. 0020N., R 0980W., 6TH PM
Sec. 2: Lot 6

The following lands are subject to Exhibit WR-CSU-05 to protect bald eagle nest, roost and perch habitat:

T. 0020N., R 0980W., 6TH PM
Sec. 2: Lot 6;

The following lands are subject to Exhibit WR-CSU-02 to protect ACEC's:

T. 0020N., R 0980W., 6TH PM
Sec. 2: Lot 6;

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

T. 0020N., R 0980W., 6TH PM
Sec. 2: Lot 6;

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

T. 0020N., R 0980W., 6TH PM
All;

PARCEL ID: 6214 SERIAL #:
T. 0040N., R 0980W., 6TH PM
Sec. 9: Lot 7,8,11,13;
Sec. 9: N2SW,SWSW;
Sec. 16: Lot 4,5,12,13;
Sec. 16: W2W2;
Sec. 18: NESW;

Moffat County
Colorado 627.19 Acres

BLM; CDO: WRRA

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 0980W., 6TH PM
Sec. 9: NESW,SWSW;
Sec. 16: Lot 12,13;
Sec. 16: W2SW;
Sec. 18: NESW;

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

T. 0040N., R 0980W., 6TH PM
Sec. 16: Lot 12,13;
Sec. 16: W2SW;

All lands are subject to Exhibit WR-NSO-09 to protect BLM Sensitive Plants and Remnant Vegetation Associations (RVA).

The following lands are subject to Exhibit WR-LN-01 to protect white-tailed prairie dog towns:

T. 0040N., R0980W., 6TH PM
Sec. 18: NESW;

The following lands are subject to Exhibit WR-CSU-03 to protect black-footed ferret reintroduction areas:
T. 0040N., R0980W., 6TH PM
Sec. 18: NESW;

The following lands are subject to Exhibit WR-TL-10 to protect greater sage-grouse crucial winter habitat:

T. 0040N., R0980W., 6TH PM
Sec. 18: NESW;

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

T. 0040N., R0980W., 6TH PM
Sec. 18: NESW;

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

T. 0040N., R0980W., 6TH PM
Sec. 9: Lot 7;

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

T. 0040N., R0980W., 6TH PM
Sec. 9: Lot 7, 11 and 13, NESW;

PARCEL ID: 6540 SERIAL #:
T. 0040N., R 0980W., 6TH PM
Sec. 17: SWNE,SENW,NESW,NWSE;
Sec. 18: N2NE,E2NW,

Moffat County
Colorado 320.00 Acres

BLM; CDO: WRRA

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

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.

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

T. 0040N., R 0980W., 6TH PM
Sec. 17: N2SW,SESW,S2SW;
Sec. 18: NE2W, NWNE, SENW;

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

T. 0040N., R 0980W., 6TH PM

Sec. 17: NESW,NWSE,SWNE;
Sec. 18: E2NW;

All lands are subject to Exhibit WR-NSO-09 to protect BLM Sensitive Plants and Remnant Vegetation Associations (RVA).

The following lands are subject to Exhibit WR-LN-01 to protect white-tailed prairie dog towns:

T. 0040N., R0980W., 6TH PM
Sec. 18: NWNE, E2NW;

The following lands are subject to Exhibit WR-CSU-03 to protect black-footed ferret reintroduction areas:
T. 0040N., R0980W., 6TH PM
Sec. 18: NWNE, E2NW;

The following lands are subject to Exhibit WR-LN-05 to protect black-footed ferrets:

T. 0040N., R0980W., 6TH PM
Sec. 18: NWNE, E2NW;

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

T. 0040N., R0980W., 6TH PM
Sec. 17: SENW, NESW, NWSE;
Sec. 18: N2NE, E2NW;

The following lands are subject to Exhibit WR-TL-10 to protect greater sage-grouse crucial winter habitat:

T. 0040N., R0980W., 6TH PM
Sec. 18: N2NE;

PARCEL ID: 6547 SERIAL #:
T. 0030N., R 0930W., 6TH PM
Sec. 31: E2;
Sec. 32: W2W2,E2SW;

Rio Blanco County
Colorado 560.000 Acres

BLM; CDO: WRRA

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

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.

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

T. 0030N., R 0930W., 6TH PM
Sec. 31: E2;
Sec. 32: W2NW,SW;

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

T. 0030N., R 0930W., 6TH PM
Sec. 31: SE;
Sec. 32: W2NW,W2SW;

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

T. 0030N., R0930W., 6TH PM
Sec. 31: NWNE, N2SE, SWSE;
Sec. 32: SW1/4;

All lands are subject to Exhibit WR-NSO-09 to protect BLM Sensitive Plants and Remnant Vegetation Associations (RVA).

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

T. 0030N., R0930W., 6TH PM
Sec. 31: N2NE, SWNE, SE1/4;
Sec. 32: SW1/4, SWNW;

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

T. 0030N., R0930W., 6TH PM
ALL;

PARCEL ID: 6549 SERIAL #:
T. 0030N., R 0930W., 6TH PM
Sec. 28: Lot 2,6,11,14,16;
Sec. 28: Lot 19,20,22,24;
Sec. 28: SW,N2SE;

Rio Blanco County
Colorado 462.24 Acres

PVT/BLM; CDO: WRRA

Exhibit CO-01 applies to the following lands
T. 0030N., R 0930W., 6TH PM
Sec. 28: Lot 6, 24

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

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.

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:
T. 0030N., R 0930W., 6TH PM
Sec. 28: Lot 2,16;
Sec. 28: Lot 19,20,22;
Sec. 28: N2SE;

The following lands are subject to CO-29 to alert lessee of potential requirements to protect paleontological values:
T. 0030N., R 0930W., 6TH PM
Sec. 28: Lot 6,11,14;
Sec. 28: Lot 24;
Sec. 28: S2SW;

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

T. 0030N., R 0930W., 6TH PM
Sec. 28: Lot 2,16;
Sec. 28: Lot 19,20,22;
Sec. 28: N2SE;

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

T. 0030N., R 0930W., 6TH PM
Sec. 28: Lot 2,20,22;
Sec. 28: N2SE;

The following lands are subject to Exhibit WR-NSO-09 to protect BLM Sensitive Plants and Remnant Vegetation Associations (RVA):

T. 0030N., R 0930W., 6TH PM
Sec. 28: Lot 2,16;
Sec. 28: Lot 19,20,22;
Sec. 28: N2SE;

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

T. 0030N., R0930W., 6TH PM
Sec. 28: Lot 20, 22
Sec.28: N2SE, SW;

PARCEL ID: 6550 SERIAL #:
T. 0030N., R 0970W., 6TH PM
Sec. 27: SWSE;

Rio Blanco County
Colorado 40 Acres

BLM; CDO: WRRA

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

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 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 0970W., 6TH PM
Sec. 27: SWSE;

All lands are subject to Exhibit WR-NSO-09 to protect BLM Sensitive Plants and Remnant Vegetation Associations (RVA).

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

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

The following lands are subject to Exhibit WR-TL-10 to protect greater sage-grouse crucial winter habitat:

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

PARCEL ID: 6551 SERIAL #:
T. 0030N., R 0980W., 6TH PM
Sec. 30: Lot 10,12;

Rio Blanco County
Colorado 70.100 Acres

BLM; CDO: WRRA

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

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.

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;

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

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

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

All lands are subject to Exhibit WR-NSO-09 to protect BLM Sensitive Plants and Remnant Vegetation Associations (RVA).

The following lands are subject to Exhibit WR-CSU-05 to protect bald eagle nest, roost and perch habitat:

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

The following lands are subject to Exhibit WR-CSU-02 to protect ACEC's:

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

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

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

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

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

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

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

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

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

PARCEL ID: 6552 SERIAL #:
T. 0040S., R 1010W., 6TH PM
Sec. 23: N2NE,NW;

Rio Blanco County
Colorado 240.000 Acres

PVT/BLM; CDO: WRRA

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

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 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. 0040S., R 1010W., 6TH PM
Sec. 23: N2NE,NW;

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

T. 0040S., R 1010W., 6TH PM
Sec. 23: NWNW, NENW, NWNE, SWNW, SENW

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

T. 0040S., R 1010W., 6TH PM
Sec. 23: N2NE,NENW,S3NW;

All lands are subject to Exhibit WR-NSO-09 to protect BLM Sensitive Plants and Remnant Vegetation Associations (RVA).

The following lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat:

T. 0040S., R 1010W., 6TH PM
ALL;

The following lands are subject to Exhibit WR-TL-09 to protect big game summer range:

T. 0040S., R 1010W., 6TH PM
Sec. 23: NW1/4

PARCEL ID: 6554 SERIAL #:
T. 0030N., R 0930W., 6TH PM
Sec. 29: W2;

Rio Blanco County
Colorado 320.000 Acres

PVT/BLM; CDO: WRRA

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

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 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. 29: W2;

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

T. 0030N., R 0930W., 6TH PM
Sec. 29: E2SW,E2NW;

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

T. 0030N., R 0930W., 6TH PM
Sec. 29: NESW, W2SW;

All lands are subject to Exhibit WR-NSO-09 to protect BLM Sensitive Plants and Remnant Vegetation Associations (RVA).

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

T. 0030N., R 0930W., 6TH PM
Sec. 29: SW1/4, S2NW;

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

T. 0030N., R 0930W., 6TH PM
Sec. 29: SW1/4;

PARCEL ID: 6555 SERIAL #:
T. 0030N., R 0930W., 6TH PM
Sec. 30: NENE,S2NE,SE;

Rio Blanco County
Colorado 280.000 Acres

BLM; CDO: WRRA

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

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 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. 30: NENE,S2NE,SE;

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

T. 0030N., R 0930W., 6TH PM
Sec. 30: E2SE,SWSE,S2NE;

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

T. 0030N., R 0930W., 6TH PM
Sec. 30: S2SE, NESE;

All lands are subject to Exhibit WR-NSO-09 to protect BLM Sensitive Plants and Remnant Vegetation Associations (RVA).

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

T. 0030N., R 0930W., 6TH PM
Sec. 30: S2SE, NESE;

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

T. 0030N., R 0930W., 6TH PM
ALL;

PARCEL ID: 6556 SERIAL #:
AVAILABLE PORTION:
T. 0020N., R 1040W., 6TH PM
Sec. 12: S2NE, NW, SW, NWSE;
Sec. 13: NWNW;
Sec. 14: N2NE;

Rio Blanco County
Colorado 600.00 Acres

BLM; CDO: WRRA

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

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 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 1040W., 6TH PM
Sec. 12: SW;
Sec. 13: NWNW;

The following lands are subject to Exhibit WR-NSO-06 to protect areas of critical environmental concern:

T. 0020N., R 1040W., 6TH PM
Sec. 12: SWNW, SENW, NWSW, NESW, SWSW, SESW
Sec. 13: NWNW;
Sec. 14: N2NE;

All lands are subject to Exhibit WR-NSO-08 to protect BLM Sensitive Plants and Remnant Vegetation Associations (RVA).

All lands are subject to Exhibit WR-NSO-09 to protect known and potential habitat for listed and candidate T/E species.

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

T. 0020N., R 1040W., 6TH PM
Sec. 12:NW1/4, N2SW, SWNE, SENE, NWSE, SESW;

The following lands are subject to Exhibit WR-LN-01 to protect white-tailed prairie dog towns:

T. 0020N., R 1040W., 6TH PM
Sec. 12: SENE, SWNE, NWSE, NESW, SESW;

The following lands are subject to WR-TL-09 to protect big game summer range:

T. 0020N., R 1040W., 6TH PM
Sec. 12: W2, SWNE, NWSE;
Sec. 13: NWNW;
Sec. 14: N2NE,

PARCEL ID: 6557 SERIAL #:
T. 0020N., R 1040W., 6TH PM
Sec. 1: SWSW;
Sec. 2:S2;
Sec. 3: Lot 2-4;
Sec. 10: Lot 1;
Sec. 11: E2, E2W2, NWNW;

Rio Blanco County
Colorado 1039.88 Acres

BLM; CDO: WRRA

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

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 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 1040W., 6TH PM
Sec. 3: Lot 2-4;
Sec. 10: Lot 1;
Sec. 11: N2SE,SWNE, E2NW, NWNW;

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

T. 0020N., R 1040W., 6TH PM
Sec. 11: NESE,SWNE;

The following lands are subject to Exhibit WR-NSO-06 to protect areas of critical environmental concern:

T. 0020N., R 1040W., 6TH PM
Sec. 2:S2;
Sec. 3: Lot 2-4;
Sec. 10: Lot 1;
Sec. 11: E2, E2W2, NWNW;

All lands are subject to Exhibit WR-NSO-08 to protect BLM Sensitive Plants and Remnant Vegetation Associations (RVA).

All lands are subject to Exhibit WR-NSO-09 to protect known and potential habitat for listed and candidate T/E species.

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

T. 0020N., R 1040W., 6TH PM
Sec. 1: SWSW

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

T. 0020N., R 1040W., 6TH PM
Sec. 1: SWSW;
Sec. 12: N2NW;
Sec. 2: E2SE;

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

T. 0020N., R 1040W., 6TH PM

Sec. 1: SWSW;
Sec. 2: SE1/4;
Sec. 11 NWNE, NENE, SENE;

The following lands are subject to Exhibit WR-TL-09 to protect big game summer range:

T. 0020N., R 1040W., 6TH PM
All

PARCEL ID: 6558 SERIAL #:
T. 0020N., R 1030W., 6TH PM
Sec. 26: SWSW;
Sec. 27: E2, E2NW, NESW;
Sec. 35: W2,NWSE,S2SE;
Sec. 36: SWSW;

Rio Blanco County
Colorado 960.00 Acres

BLM; CDO: WRRA

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

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 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 1030W., 6TH PM
Sec. 26: SWSW;
Sec. 27: NE,N2SE,NENW;
Sec. 35: NW,E2SW,S2SE,NWSE;
Sec. 36: SWSW;

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

T. 0020N., R 1030W., 6TH PM
Sec. 26: SWSW;
Sec. 27: W2NE,SENE,N2SE,NENW;
Sec. 35: N2NW,SENW,NESW,S2SE,NWSE;
Sec. 36: SWSW;

All lands are subject to Exhibit WR-NSO-08 to protect BLM Sensitive Plants and Remnant Vegetation Associations (RVA).

All lands are subject to Exhibit WR-NSO-09 to protect known and potential habitat for listed and candidate T/E species.

The following lands are subject to Exhibit WR-TL-09 to protect big game summer range:

T. 0020N., R 1030W., 6TH PM
Sec. 35: NW1/4, SWNW, SENW, S2SE, NWSE;

PARCEL ID: 6559 SERIAL #:
T. 0010N., R 1020W., 6TH PM
Sec. 6: Lot 3,4;
Sec. 7: Lot 2-4,10-12;
Sec. 7: E2SW,SE;
Sec. 8: Lot 8-13;
Sec. 8: S2;
Sec. 10: SW;
Sec. 18: Lot 1,2;
Sec. 18: E2NW,NE;
Sec. 23: ALL;
Sec. 24: N2;

Rio Blanco County
Colorado 2378.59 Acres

BLM; CDO: WRRA

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

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 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. 0010N., R 1020W., 6TH PM
Sec. 6: Lot 3,4;
Sec. 7: Lot 2-3,10-12;
Sec. 7: NESE,NESW;
Sec. 8: Lot 8-11;
Sec. 8: E2SE;
Sec. 10: N2SW,SESW;

Sec. 23: SESE,SWSW;
Sec. 24: S2NE;

The following lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern:
T. 0010N., R 1020W., 6TH PM
Sec. 8: Lot 11;

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

T. 0010N., R 1020W., 6TH PM
Sec. 6: Lot 3,4;
Sec. 7: Lot 2-3,10-12;
Sec. 7: NESW;
Sec. 8: Lot 8-11;
Sec. 8: NESE;
Sec. 24: SENE;

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

T. 0010N., R 1020W., 6TH PM
Sec.6: Lots 3, 4;
Sec. 8: NESE;

All lands are subject to Exhibit WR-NSO-08 to protect BLM Sensitive Plants and Remnant Vegetation Associations (RVA).

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

T. 0010N., R 1020W., 6TH PM
Sec.6: Lots 3, 4;
Sec. 8: Lots10, 11, N2SE, SESE;

The following lands are subject to Exhibit WR-TL-05 to protect bald eagle roost or concentration areas:

T. 0010N., R 1020W., 6TH PM
Sec. 8: Lots 9 – 13, N2SE, SESE, NESW;

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

T. 0010N., R 1020W., 6TH PM
Sec. 7: Lots 2 – 4, 10 – 12, SE, E2SW;
Sec. 8: Lots 8 – 11, S2;
Sec. 10: SW;
Sec. 18: Lots 1, 2, E2NW, NE;

Sec. 23: ALL;
Sec. 24: N2;

PARCEL ID: 6560 SERIAL #:
T. 0010N., R 1030W., 6TH PM
Sec. 5: SW, W2SE, SESE, S2NW, NWNW;
Sec. 6: Lot 1-4;
Sec. 17: SESW;
Sec. 20: S2SE;
Sec. 21: NE,S2SE;
Sec. 28: NENW;
Sec. 29: SWNW;
Sec. 31: Lot 5;
Sec. 31: NESW;

Rio Blanco County
Colorado 1030.71 Acres

BLM; CDO: WRRA

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

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 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. 0010N., R 1030W., 6TH PM
Sec. 29: SWNW;
Sec. 31: Lot 5;
Sec. 31: NESW;

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

T. 0010N., R 1030W., 6TH PM
Sec. 29: SWNW;
Sec. 31: Lot 5;
Sec. 31: NESW;

The following lands are subject to Exhibit WR-LN-01 to protect white-tailed prairie dog towns:

T. 0010N., R 1030W., 6TH PM
Sec. 21: SWSE;

Sec. 28: NENW;

The following lands are subject to Exhibit WR-LN-05 to protect black-footed ferrets:

The following lands are subject to Exhibit WR-TL-09 to protect big game summer range:

T. 0010N., R 1030W., 6TH PM
Sec. 5: SW1/4, S2NW, NWNW, S2SE, NWSE;
Sec. 6: Lots 1 – 4;

All lands are subject to Exhibit WR-NSO-08 to protect BLM Sensitive Plants and Remnant Vegetation Associations (RVA).

All lands are subject to Exhibit WR-NSO-09 to protect known and potential habitat for listed and candidate T/E species.

PARCEL ID: 6566 SERIAL #:
T. 0010N., R 1040W., 6TH PM
Sec. 10: Lot 1-4;
Sec. 15: Lot 1-4;
Sec. 22: Lot 1-4;

Rio Blanco County
Colorado 460.160 Acres

BLM; CDO: WRRA

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

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 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. 0010N., R 1040W., 6TH PM
Sec. 10: Lot 1-4;
Sec. 15: Lot 1-4;
Sec. 22: Lot 1-4;

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

T. 0010N., R 1040W., 6TH PM
ALL;

All lands are subject to Exhibit WR-NSO-08 to protect BLM Sensitive Plants and Remnant Vegetation Associations (RVA).

All lands are subject to Exhibit WR-NSO-09 to protect known and potential habitat for listed and candidate T/E species.

PARCEL ID: 6568 SERIAL #:
T. 0010N., R 0920W., 6TH PM
Sec. 5: Lot 2;
Sec. 5: SWNE,S2NW,S2;
Sec. 6: Lot 1-7;
Sec. 6: S2NE,SENW,E2SW,SE;
Sec. 7: Lot 1;
Sec. 7: N2NE,NENW;
Sec. 8: NWNW;

Rio Blanco County
Colorado 1310.090 Acres

PVT/BLM;BLM; CDO: WRRA

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

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 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. 0010N., R 0920W., 6TH PM
Sec. 5: Lot 2;
Sec. 5:N2SE,SESE,N2SW,SWSW,S2NW;
Sec. 6: Lot 1-7;
Sec. 6: S2NE,SENW,E2SW,SE;
Sec. 7: Lot 1;
Sec. 7: N2NE,NENW;
Sec. 8: NWNW;

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

T. 0010N., R 0920W., 6TH PM
Sec. 5: SWNE,SENW,NWSE;
Sec. 6: Lot 1-3,7;

Sec. 6: SENE,S2SE,SESW;
Sec. 7: Lot 1;
Sec. 8: NWNW;

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

T. 0010N., R 0920W., 6TH PM
Sec. 6: Lots 5 – 7, E2SW;
Sec. 7: NENW, NWNE;

All lands are subject to Exhibit WR-NSO-08 to protect BLM Sensitive Plants and Remnant Vegetation Associations (RVA).

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

T. 0010N., R 0920W., 6TH PM
Sec. 6: Lots 3 – 7, E2SW,SENW, SWSE;
Sec. 7: Lot 1, NENW, NWNE;

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

T. 0010N., R 0920W., 6TH PM
Sec. 6: Lot 7;
Sec. 7: Lot 1, NENW;

PARCEL ID: 6571 SERIAL #:
T. 0020N., R 1030W., 6TH PM
Sec. 20: N2NW, SWNW;
Sec. 22: W2NW,N2SW, SESW;

Rio Blanco County
Colorado 320.00 Acres

PVT/BLM;BLM; CDO: WRRA

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

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 WR-LN-02 to alert lessee of potential requirements to protect paleontological values.

All lands are subject to Exhibit WR-NSO-08 to protect BLM Sensitive Plants and Remnant Vegetation Associations (RVA).

All lands are subject to Exhibit WR-NSO-09 to protect known and potential habitat for listed and candidate T/E species.

The following lands are subject to Exhibit WR-TL-09 to protect big game summer range:

T. 0020N., R 1030W., 6TH PM
Sec. 20: N2NW, SWNW;

PARCEL ID: 6572 SERIAL #:
T. 0020N., R 1030W., 6TH PM
Sec. 15: SWSW;
Sec. 16:,NWSE;
Sec. 17:SESW ;

Rio Blanco County
Colorado 120.00 Acres

PVT/BLM;BLM; CDO: WRRA

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

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 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 1030W., 6TH PM
Sec. 20: W2NW;
Sec. 22: W2NW,N2SW, SESW;

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

T. 0020N., R 1030W., 6TH PM
Sec. 20: SWNW;
Sec. 22: W2NW,NWSW, E2SW;

All lands are subject to Exhibit WR-NSO-08 to protect BLM Sensitive Plants and Remnant Vegetation Associations (RVA).

All lands are subject to Exhibit WR-NSO-09 to protect known and potential habitat for listed and candidate T/E species.

The following lands are subject to Exhibit WR-TL-09 to protect big game summer range:

T. 0020N., R 1030W., 6TH PM
Sec. 17: SESW;

PARCEL ID: 6573 SERIAL #:
T. 0010N., R 1030W., 6TH PM
Sec. 4: S2S2, NESE, SENE;
Sec. 22:,N2SE;
Sec. 23: S2NE, NENE, NWSW;
Sec. 24: N2NW, SWNW;

Rio Blanco County
Colorado 640.00 Acres

PVT/BLM;BLM; CDO: WRRA

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

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 WR-LN-02 to alert lessee of potential requirements to protect paleontological values.

T. 0010N., R 1030W., 6TH PM
Sec. 4: S2SE, NESE, SESW;
Sec. 22:,N2SE;
Sec. 23: NWSW;
Sec. 24: N2NW;

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

T. 0010N., R 1030W., 6TH PM
Sec. 4: S2SE, NESE, SESW;
Sec. 23: NWSW;

All lands are subject to Exhibit WR-NSO-08 to protect BLM Sensitive Plants and Remnant Vegetation Associations (RVA).

All lands are subject to Exhibit WR-NSO-09 to protect known and potential habitat for listed and candidate T/E species.

The following lands are subject to Exhibit WR-TL-09 to protect big game summer range:

T. 0020N., R 1030W., 6TH PM
Sec. 4: S2SW, S2SE, NESE, SENE;

PARCEL ID: 6574 SERIAL #:
T. 0010N., R 1040W., 6TH PM
Sec. 3: Lot 1;

Rio Blanco County
Colorado 37.860 Acres

BLM; CDO: WRRA

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

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 WR-NSO-08 to protect BLM Sensitive Plants and Remnant Vegetation Associations (RVA).

All lands are subject to Exhibit WR-NSO-09 to protect known and potential habitat for listed and candidate T/E species.

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. 0010N., R 1040W., 6TH PM
Sec. 3: Lot 1;

The following lands are subject to Exhibit WR-TL-09 to protect big game summer range:

T. 0010N., R 1040W., 6TH PM
Sec. 3: Lot 1

PARCEL ID: 6578 SERIAL #:
T. 0030N., R 1030W., 6TH PM
Sec. 1: Lot 1-4;
Sec. 2: Lot 1-4;
Sec. 3: SWNE,SESW,SESE;
Sec. 6: E2SE;

Moffat County
Colorado 521.000 Acres

PVT/BLM;BLM; CDO: WRRA

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

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 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 1030W., 6TH PM
Sec. 1: Lot 1-2,4;
Sec. 2: Lot 4;

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

T. 0030N., R 1030W., 6TH PM
Sec. 1: Lot 1,4;

PARCEL ID: 6579 SERIAL #:
T. 0050N., R 1040W., 6TH PM
Sec. 25: S2NW,S2;
Sec. 26: Lot 9-14;
Sec. 35: Lot 7-12;

Moffat County
Colorado 828.240 Acres

BLM; CDO: WRRA

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

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 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. 0050N., R 1040W., 6TH PM
Sec. 25: SW,SWSE;
Sec. 26: Lot 9,11-14;
Sec. 35: Lot 7-9,11-12;

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

T. 0050N., R 1040W., 6TH PM
Sec. 25: SW;
Sec. 26: Lot 11-14;
Sec. 35: Lot 7-9;

All lands are subject to Exhibit WR-NSO-08 to protect BLM Sensitive Plants and Remnant Vegetation Associations (RVA).

The following lands are subject to Exhibit WR-TL-09 to protect big game summer range:

T. 0050N., R 1040W., 6TH PM
Sec. 25: S2NW, N2SE;

PARCEL ID: 6580 SERIAL #:
T. 0040N., R 1030W., 6TH PM
Sec. 35: ALL;

Moffat County
Colorado 640.000 Acres

BLM; CDO: WRRA

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

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 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. 0040N., R 1030W., 6TH PM
Sec. 35: NWSE, S2SW,NWSW,N2NE,NW;

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

T. 0040N., R 1030W., 6TH PM
Sec. 35: N2NE,SWNE,N2NW,NWSE,W2SW,SESW;

PARCEL ID: 6581 SERIAL #:
T. 0040N., R 1020W., 6TH PM
Sec. 34: SESW,S2SE;
Sec. 35: SWSW;

Moffat County
Colorado 160.000 Acres

BLM; CDO: WRRA

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

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.

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

T. 0040N., R 1020W., 6TH PM
Sec. 34: SESW,S2SE;

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

T. 0040N., R 1020W., 6TH PM
Sec. 34: SESE, SESW;

All lands are subject to Exhibit WR-NSO-08 to protect BLM Sensitive Plants and Remnant Vegetation Associations (RVA).

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

T. 0040N., R 1020W., 6TH PM
ALL;

The following lands are subject to Exhibit WR-TL-08 to protect big game severe winter range:
T. 0040N., R 1020W., 6TH PM
Sec. 34: SESE;
Sec. 35: SWSW;

PARCEL ID: 6583 SERIAL #:
T. 0030N., R 0960W., 6TH PM
Sec. 3: Lot 22, 23;
Sec. 3: Lot 6-8, 11, 13;
Sec. 4: Lot 5-7;
Sec. 4: S2NE, SENW, NESW, NWSE;
Sec. 12: S2NE, NWNE, E2NW, NWNW, N2SE, SESE;

Moffat County
Colorado 855.47Acres

PVT/BLM;BLM; CDO: WRRA

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

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 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 0960W., 6TH PM
Sec. 3: Lot 6-8, 11, 13;
Sec. 4: Lot 5-7;
Sec. 4: S2NE, SENW, NESW;
Sec. 12: N2NW, SENW,S2NE,NWNE, N2SE,SESE;

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

T. 0030N., R 0960W., 6TH PM
Sec. 3: Lot 6-8, 11, 13;
Sec. 4: Lot 5-7;
Sec. 4: SENE, SENW, NWSE,NESW;
Sec. 12: SENE,SENW,NWSE,NENW;

All lands are subject to Exhibit WR-NSO-08 to protect BLM Sensitive Plants and Remnant Vegetation Associations (RVA).

All lands are subject to Exhibit WR-NSO-09 to protect known and potential habitat for listed and candidate T/E species.

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

T. 0030N., R 0960W., 6TH PM
Sec. 3: Lost 8 and 11;
Sec. 4: Lots 5 and 6, S2NE;

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

T. 0030N., R 0960W., 6TH PM
Sec. 3: Lots 6 – 8, 11 and 13;
Sec. 4: Lots 5 – 7; S2NE, SENW, NWSE, NESW;

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

T. 0030N., R 0960W., 6TH PM
Sec. 12: S2NE, NWNE, N2NW, SENW, N2SE, SESE;

The following lands are subject to Exhibit WR-TL-09 to protect big game summer range:

T. 0030N., R 0960W., 6TH PM
ALL;

PARCEL ID: 6584 SERIAL #:
T. 0020N., R 0960W., 6TH PM
Sec. 1: Lot 5,6,14;
Sec. 1: SENE;

Rio Blanco County
Colorado 127.090 Acres

BLM; CDO: WRRA

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

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 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 0960W., 6TH PM
Sec. 1: Lot 5,6,14;
Sec. 1: SENE;

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

T. 0020N., R 0960W., 6TH PM
Sec. 1: Lot 5,6,14;
Sec. 1: SENE;

All lands are subject to Exhibit WR-NSO-08 to protect BLM Sensitive Plants and Remnant Vegetation Associations (RVA).

All lands are subject to Exhibit WR-NSO-09 to protect known and potential habitat for listed and candidate T/E species.

PARCEL ID: 6588 SERIAL #:
T. 0030N., R 0970W., 6TH PM
Sec. 26: W2NW,

Sec. 27: E2SE;

Rio Blanco County
Colorado 160.00 Acres

PVT/BLM; CDO: WRRA

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

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 WR-LN-02 to alert lessee of potential requirements to protect paleontological values.

All lands are subject to Exhibit WR-NSO-08 to protect BLM Sensitive Plants and Remnant Vegetation Associations (RVA).

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

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

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

T. 0030N., R 0970W., 6TH PM
Sec. 26: NWNW;

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

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

PARCEL ID: 6589 SERIAL #:
T. 0030N., R 0960W., 6TH PM
Sec. 26: Lot 5,7,12;
Sec. 26: NE, S2NW,W2SW;
Sec. 35: NENE,S2NE;

Moffat County
Rio Blanco County
Colorado 514.17 Acres

BLM; CDO: WRRA

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

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 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 0960W., 6TH PM
Sec. 26: Lot 5,7,12;
Sec. 26: N2NE,SENE,S2NW,W2SW;
Sec. 35: NENE,S2NE;

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

T. 0030N., R 0960W., 6TH PM
Sec. 26: Lot 5,7,12;
Sec. 26: E2NE,NWNE, S2NW,W2SW;
Sec. 35: NENE,S2NE;

All lands are subject to Exhibit WR-NSO-08 to protect BLM Sensitive Plants and Remnant Vegetation Associations (RVA).

All lands are subject to Exhibit WR-NSO-09 to protect known and potential habitat for listed and candidate T/E species.

PARCEL ID: 6599 SERIAL #:
T. 0030N., R 1030W., 6TH PM
Sec. 9: EXCL ROW COC0128136;
Sec. 9: NENW,E2SENW,SENW;

Moffat County
Colorado 100.00 Acres

BLM; CDO: WRRA

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

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 WR-NSO-08 to protect BLM Sensitive Plants and Remnant Vegetation Associations (RVA).

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

T. 0030N., R 1030W., 6TH PM
Sec. 9: SENW;

PARCEL ID: 6601 SERIAL #:
T. 0030N., R 1040W., 6TH PM
Sec. 1: S2NW,S2SE,NWSW,SESW;
Sec. 12: NENE, S2SW;
Sec. 13: S2NE,NW,S2;

Moffat County
Colorado 920.00 Acres

PVT/BLM;BLM; CDO: WRRA

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

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.

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

T. 0030N., R 1040W., 6TH PM
Sec. 1: SWNW,S2SW,NESW,SESE;

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

T. 0030N., R 1040W., 6TH PM
Sec. 1: SWNW,S2SE,N2SW;

All lands are subject to Exhibit WR-NSO-08 to protect BLM Sensitive Plants and Remnant Vegetation Associations (RVA).

The following lands are subject to Exhibit WR-LN-01 to protect white-tailed prairie dog towns:

T. 0030N., R 1040W., 6TH PM
Sec. 1: NWSW;
Sec. 13: S2, SWNW, SENW, SWNE;

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

T. 0030N., R 1040W., 6TH PM
Sec. 1: SESE, SWSE, SESW, NESW, NWSW;
Sec. 12: NENE;
Sec. 13: S2, NW1/4, S2NE1/4;

The following lands are subject to Exhibit WR-TL-10 to protect sage-grouse crucial winter range:

T. 0030N., R 1040W., 6TH PM
Sec. 1: NWSW, SESW;
Sec. 12: S2SW;
Sec. 13: S2NW1/4, S2NE1/4;

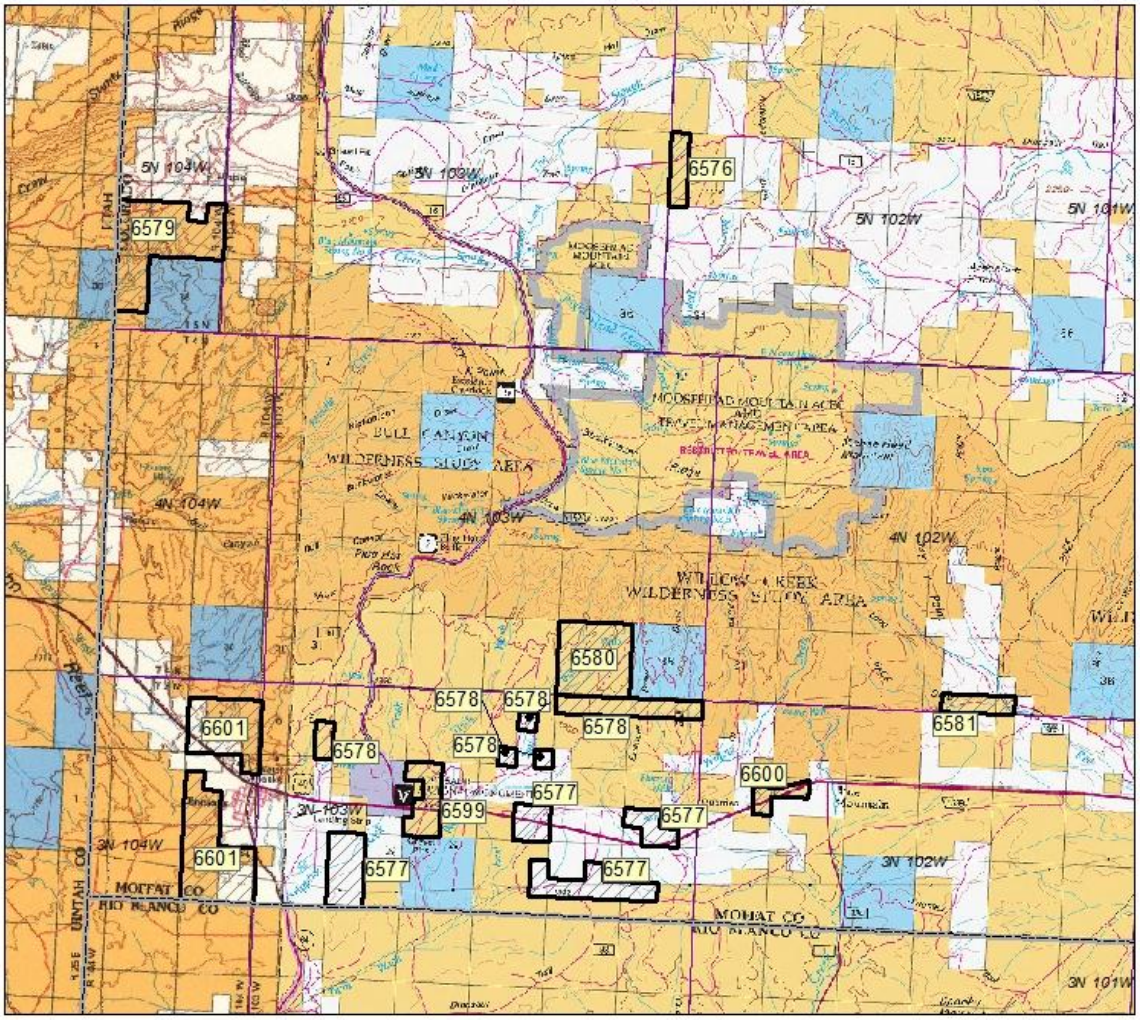
The following lands are subject to Exhibit WR-TL-01 to protect sensitive raptors:

T. 0030N., R 1040W., 6TH PM
Sec. 13: SE, SESW;

The following lands are subject to Exhibit WR-NSO-02 to protect sensitive raptor nests:

T. 0030N., R 1040W., 6TH PM
Sec. 13: S2SE;

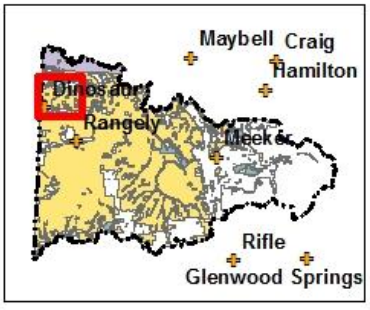
Attachment D
Location Maps of All Nominated Parcels
May 2013 – Colorado Competitive Oil and Gas Lease Sale



CountyBoundaries
May 2013 Oil and Gas Lease Sale Nominated Parcels
FieldOffice_Boundary_WRFO

0 0.5 1 2 Miles

N



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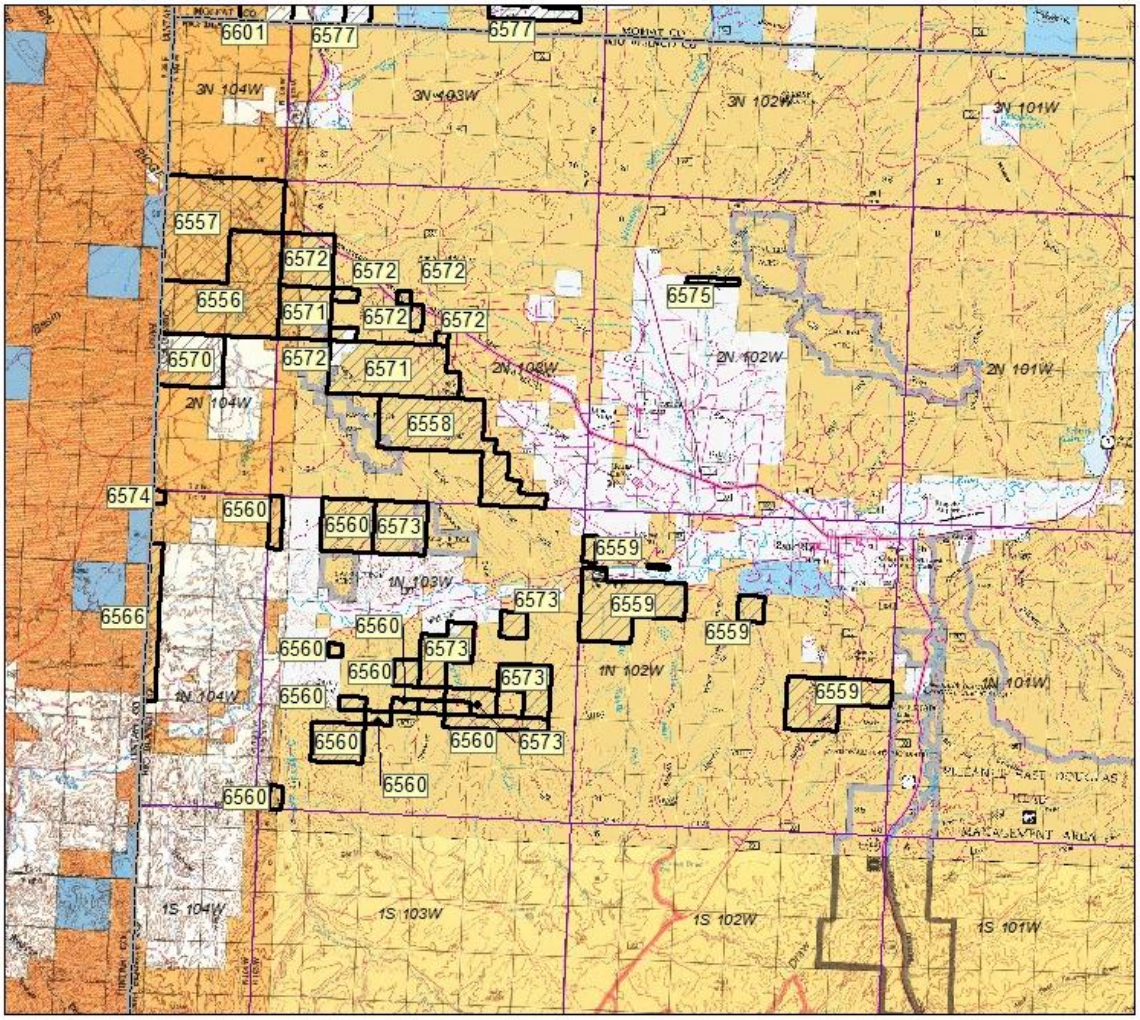
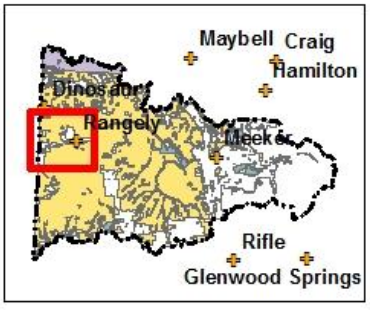


CountyBoundaries
May 2013 Oil and Gas Lease Sale Nominated Parcels
FieldOffice_Boundary_WRFO

N

0 1 2 4 Miles



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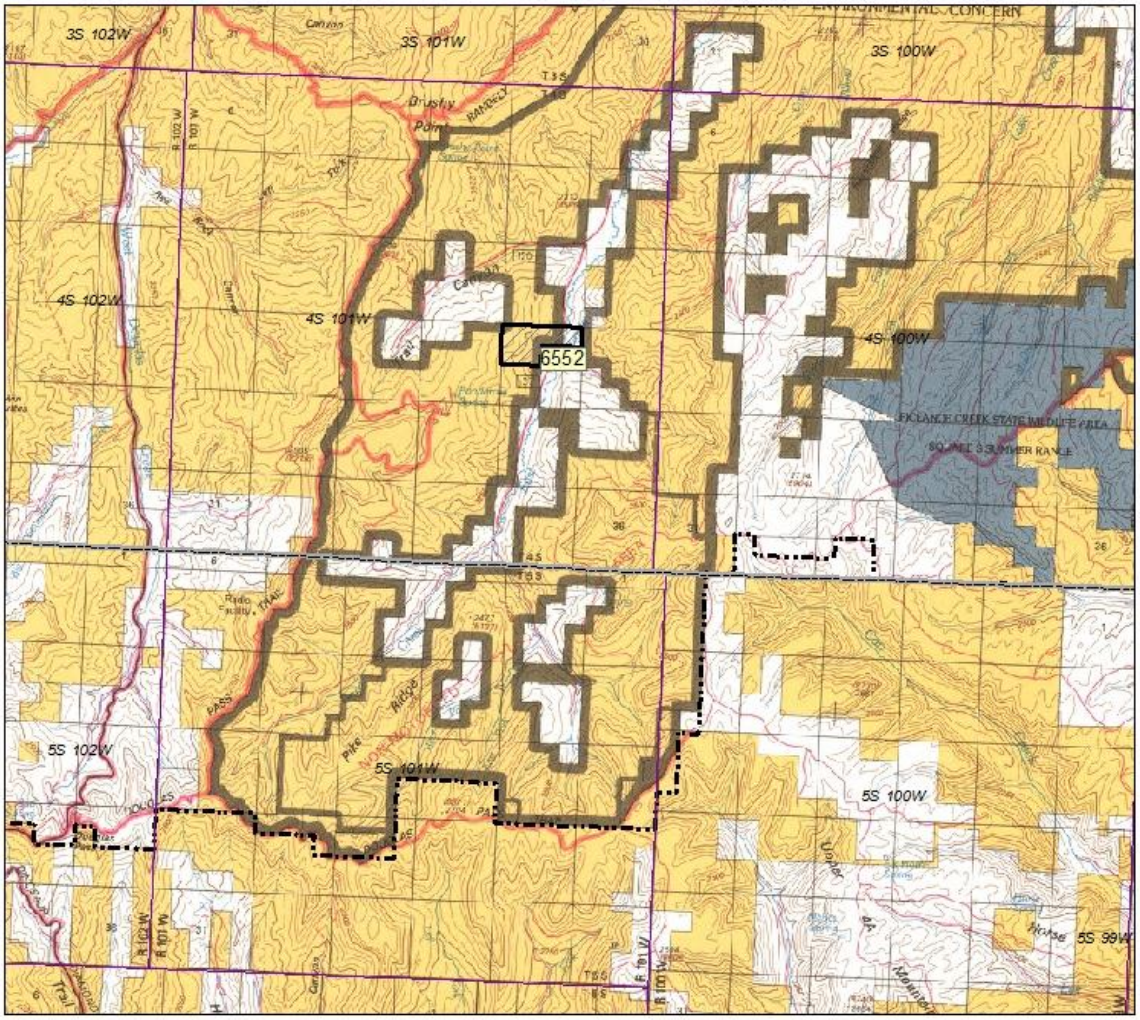

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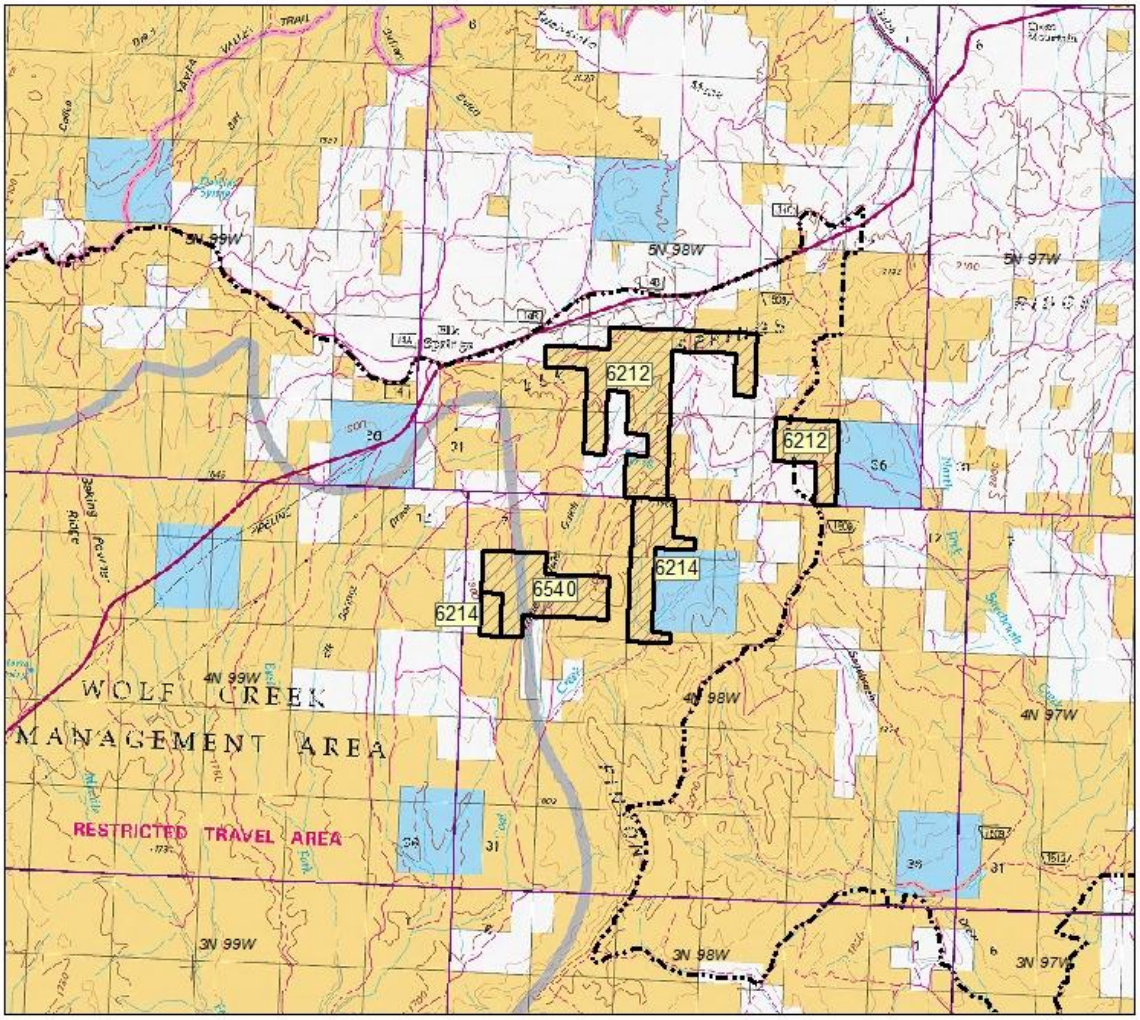

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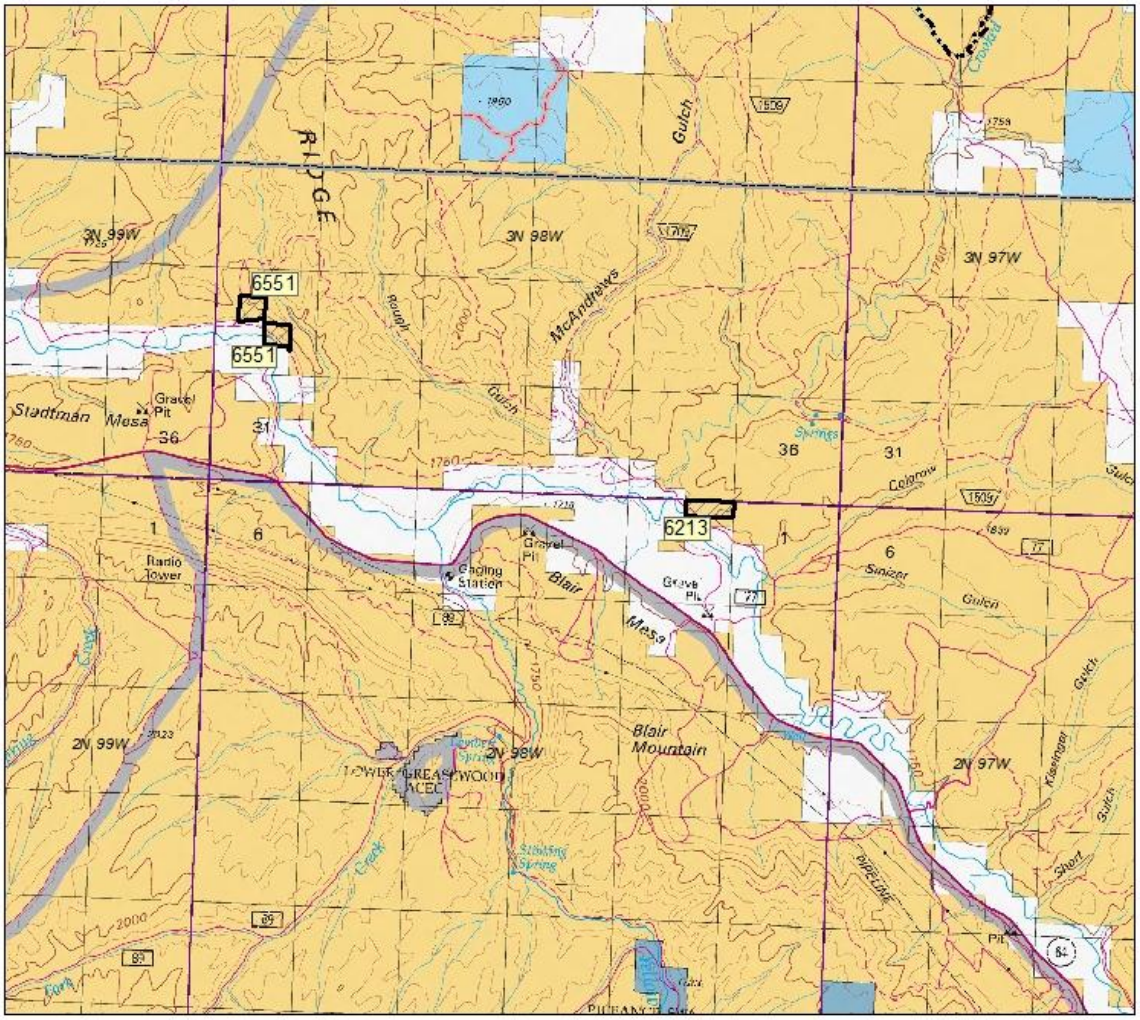

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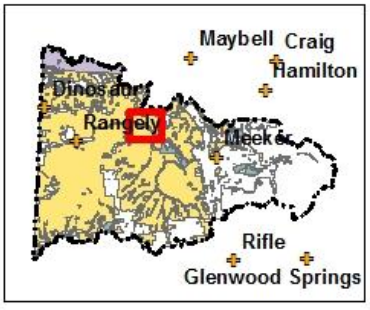
May 2013 Oil and Gas Lease Sale Nominated Parcels
FieldOffice_Boundary_WRFO

0 0.5 1 2 Miles

N



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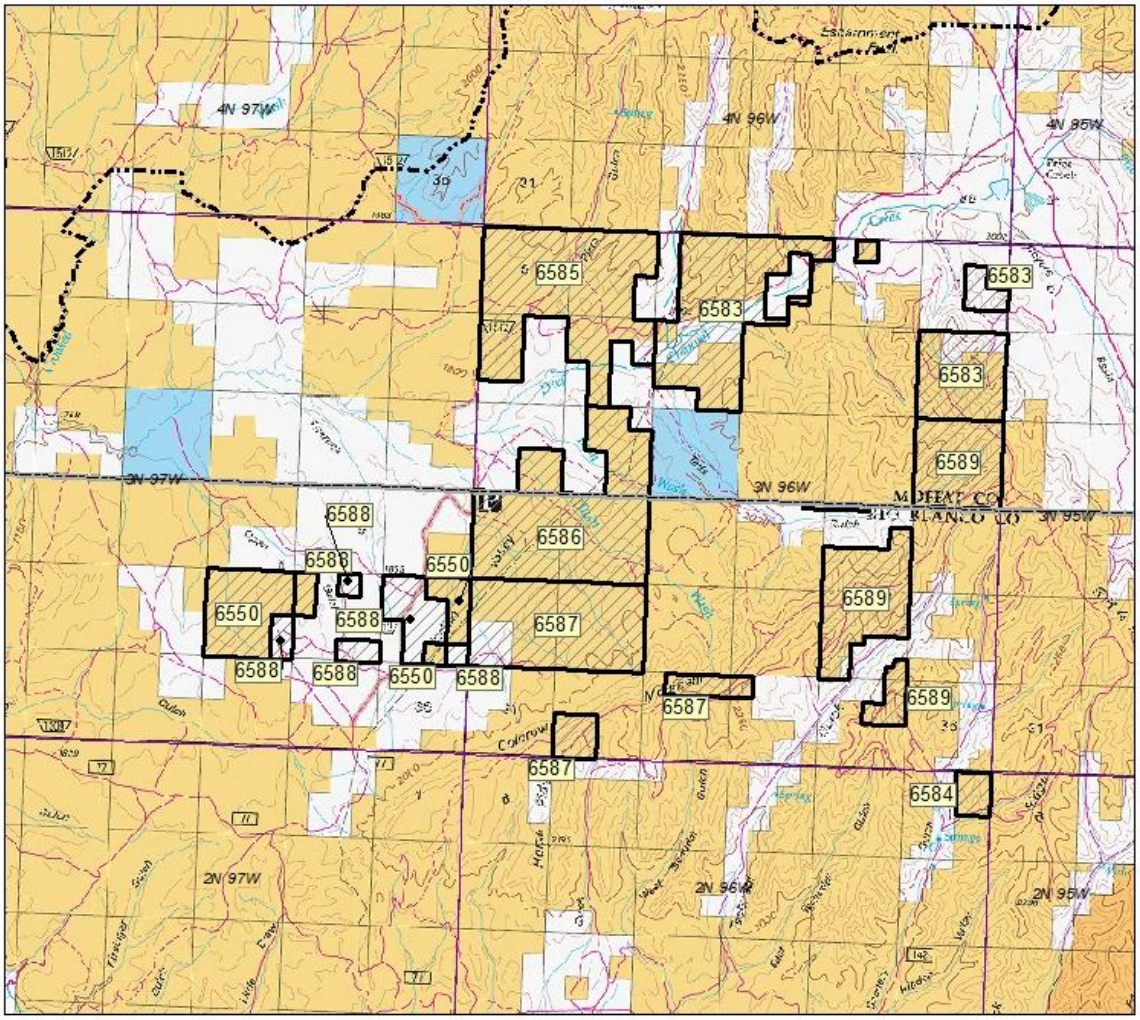
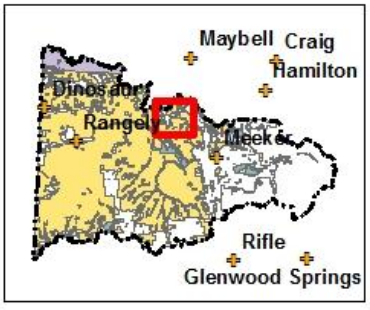


CountyBoundaries
May 2013 Oil and Gas Lease Sale Nominated Parcels
FieldOffice_Boundary_WRFO

0 0.5 1 2 Miles

N



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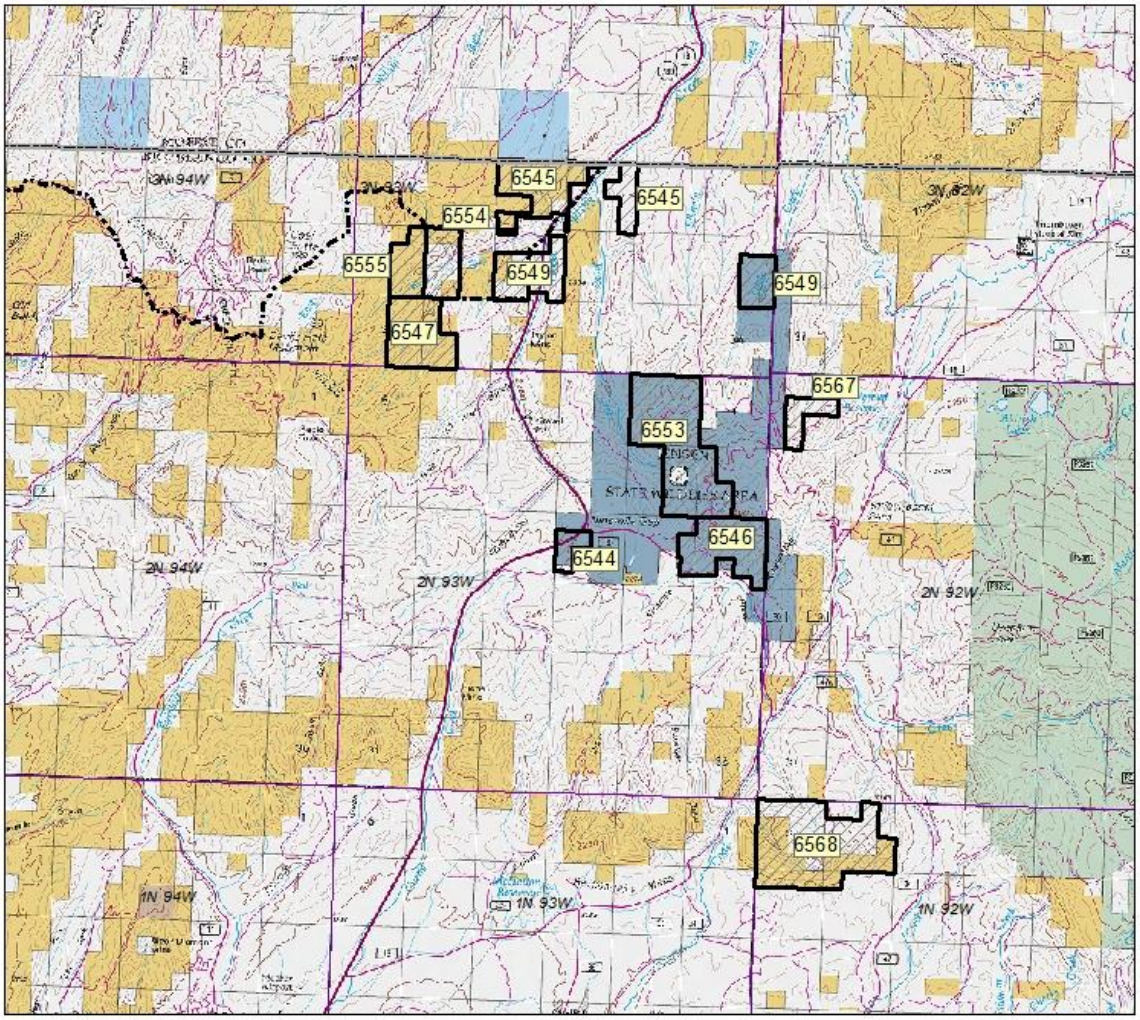
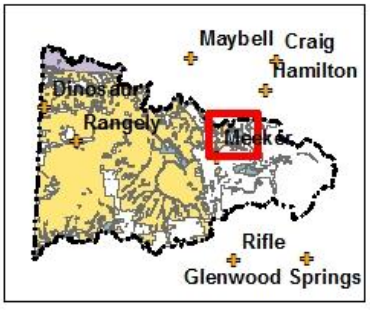


CountyBoundaries
May 2013 Oil and Gas Lease Sale Nominated Parcels
FieldOffice_Boundary_WRFO



0 0.5 1 2 Miles

N

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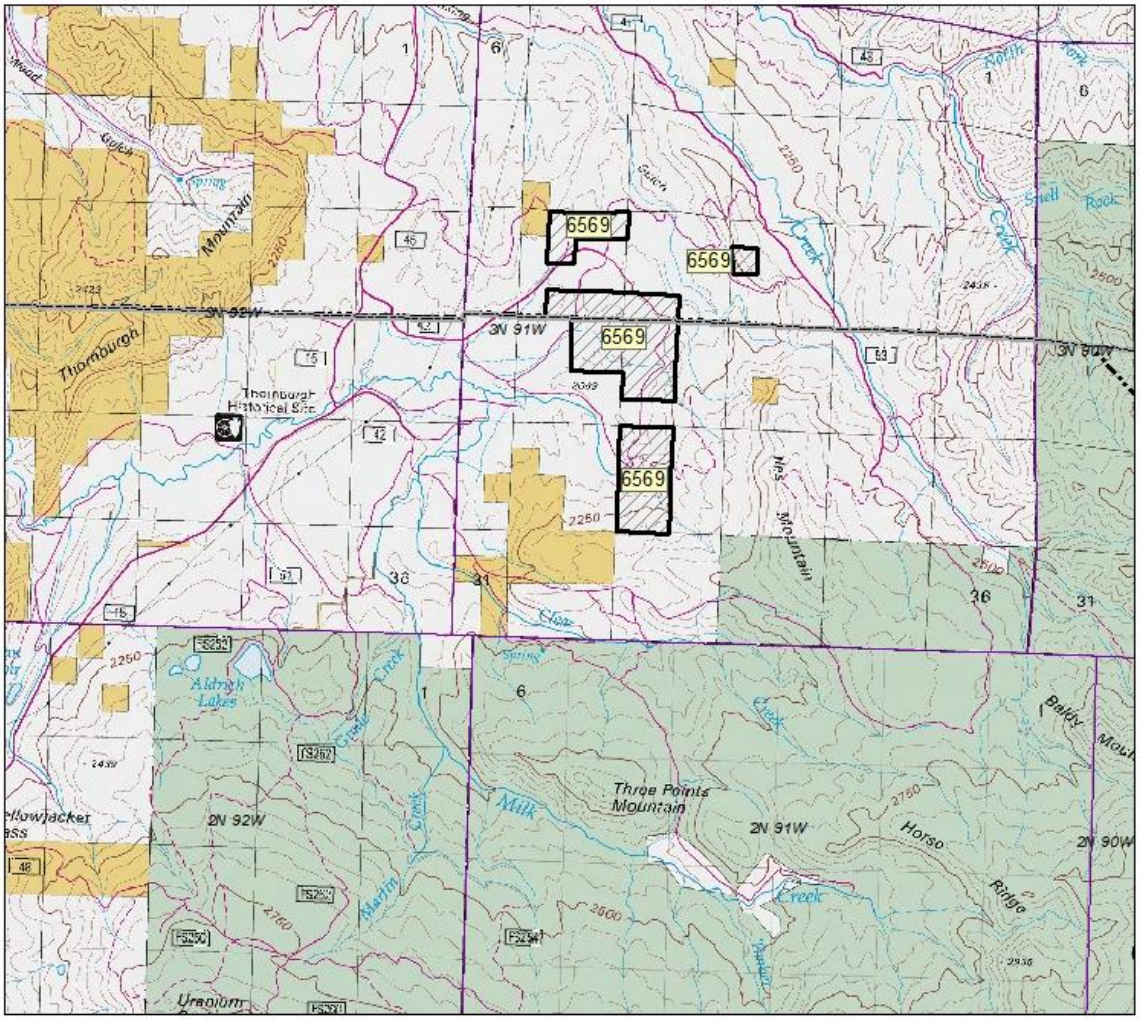

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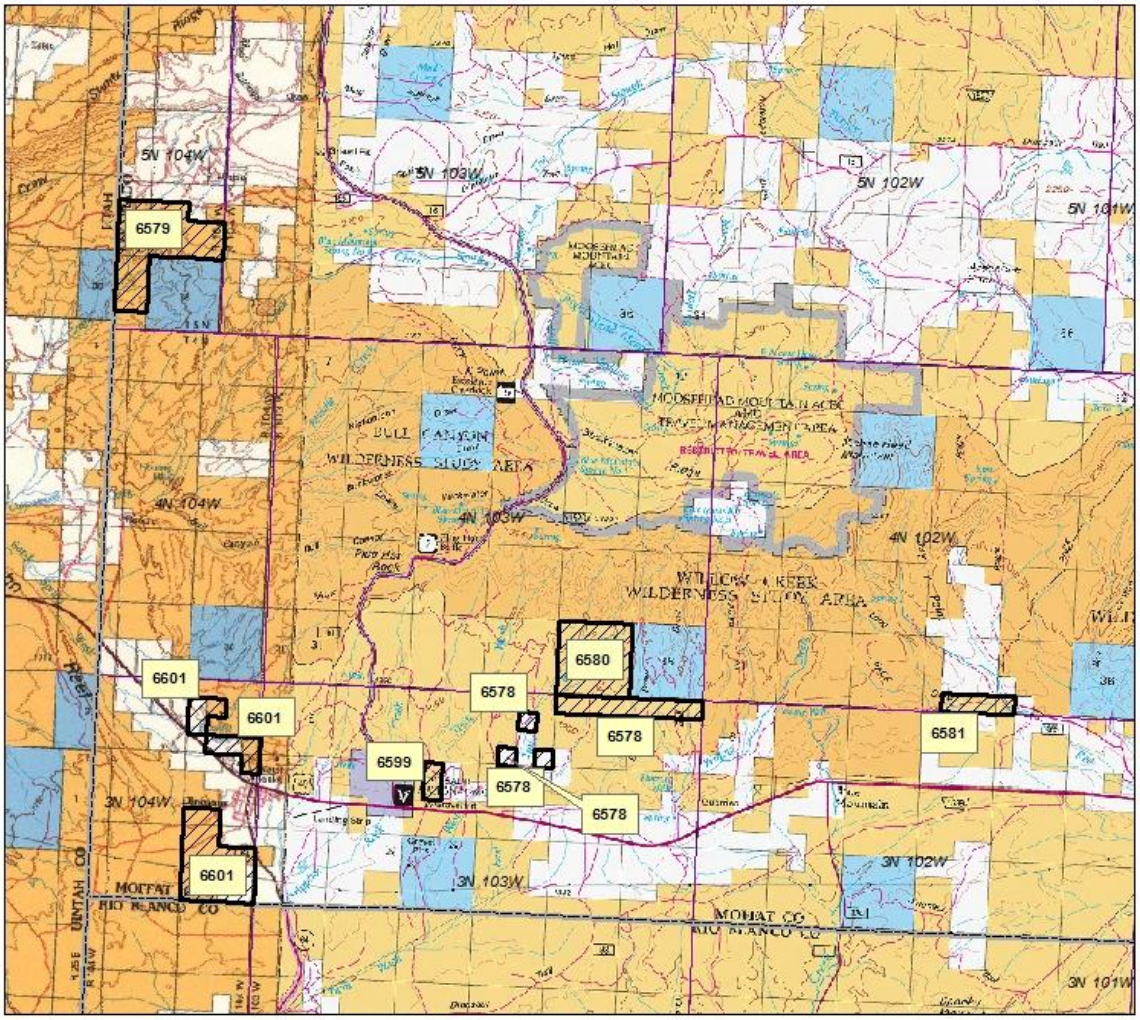
Attachment E
Location Maps of All Offered Parcels
May 2013 – Colorado Competitive Oil and Gas Lease Sale



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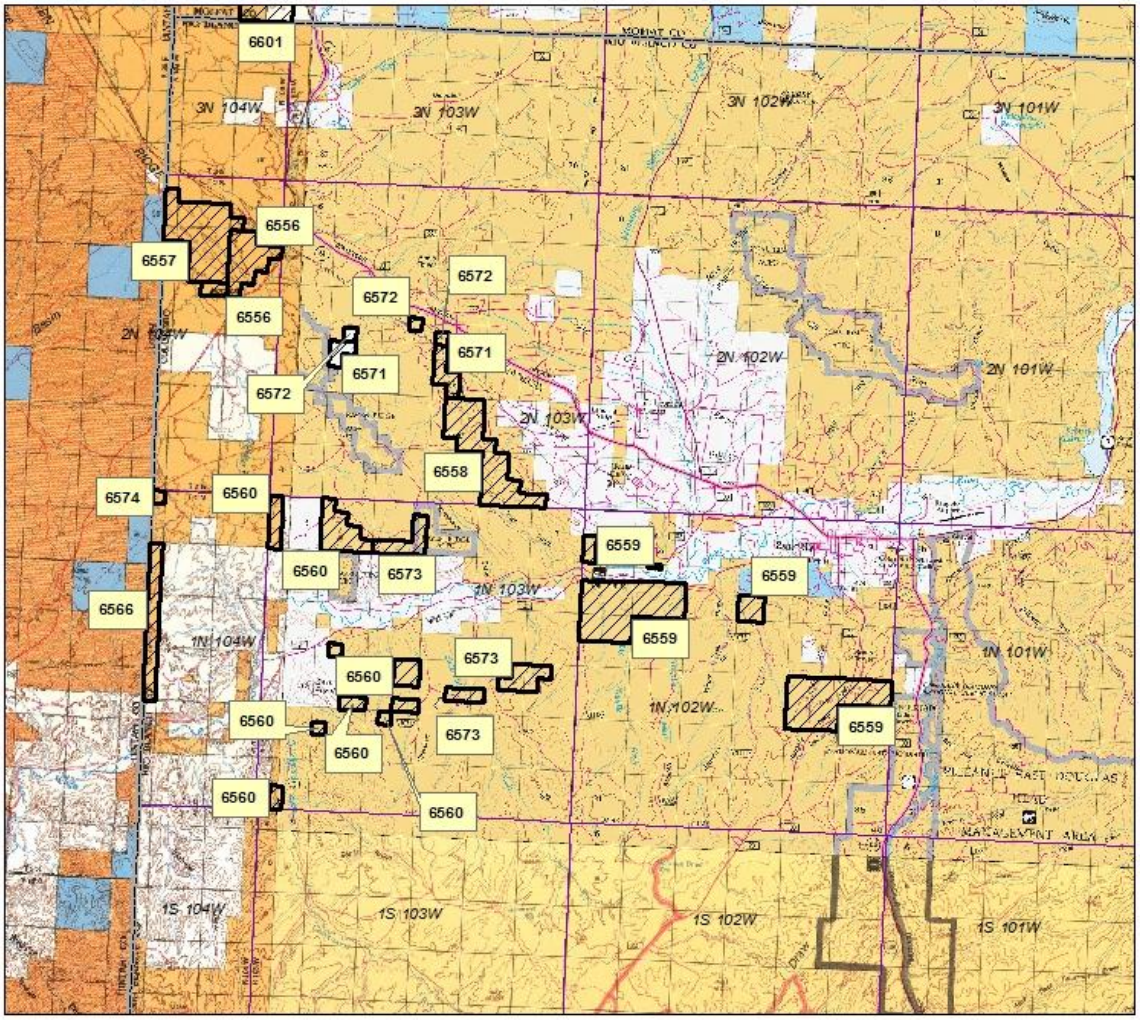
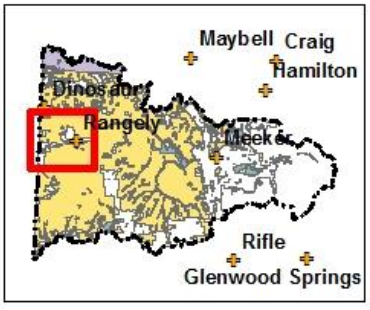


May 2013 Oil and Gas Lease Sale Available
CountyBoundaries
FieldOffice_Boundary_WRFO

0 1 2 4 Miles

N



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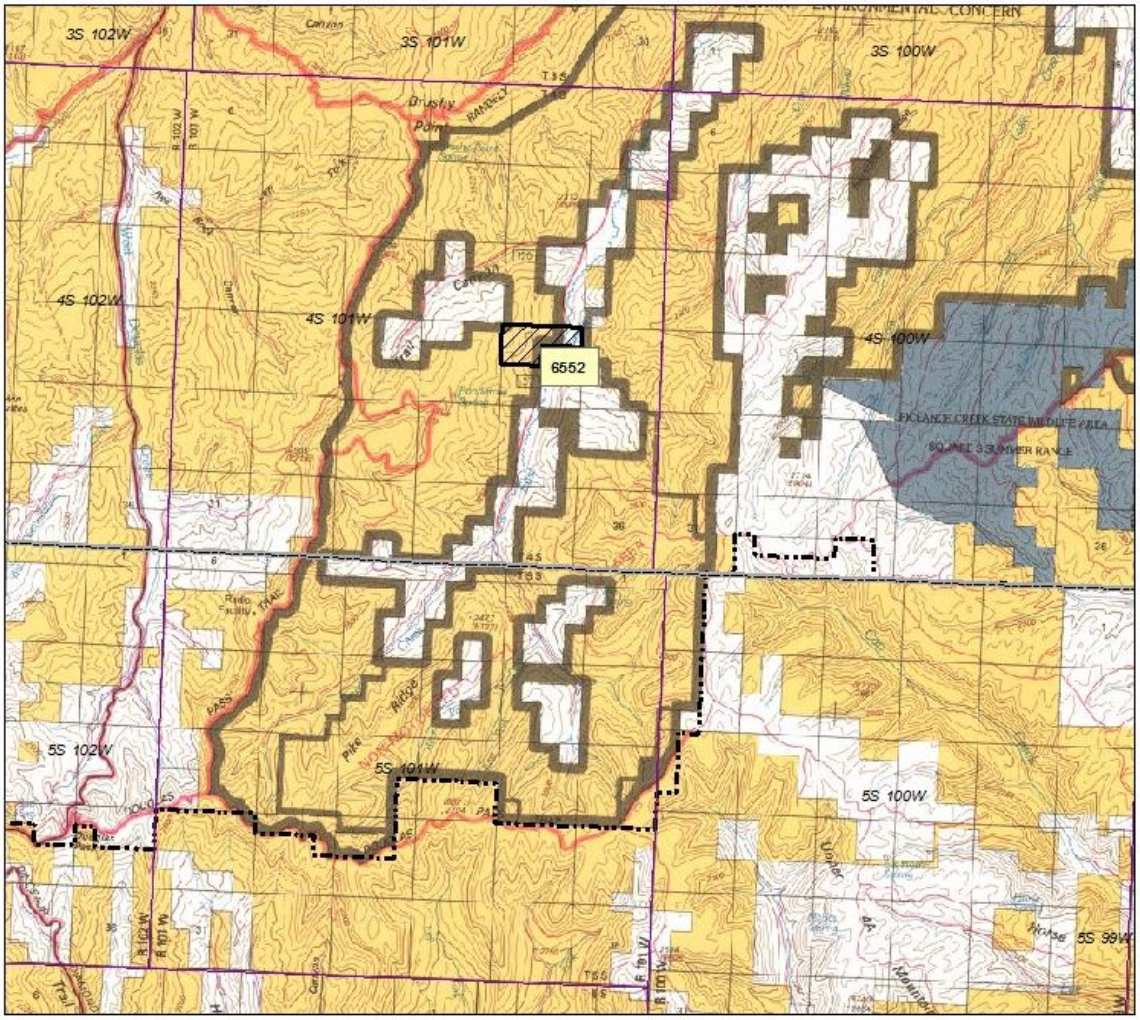

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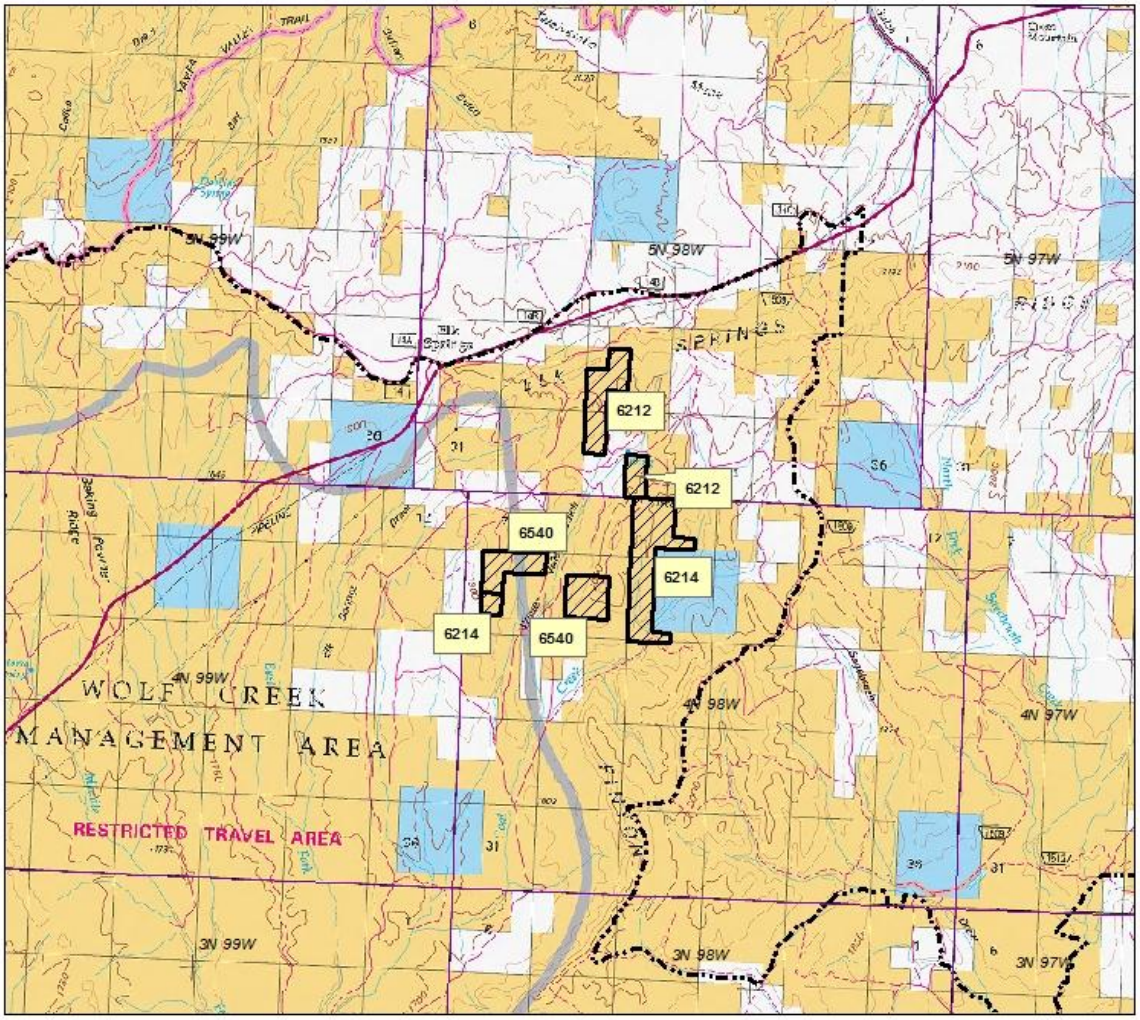

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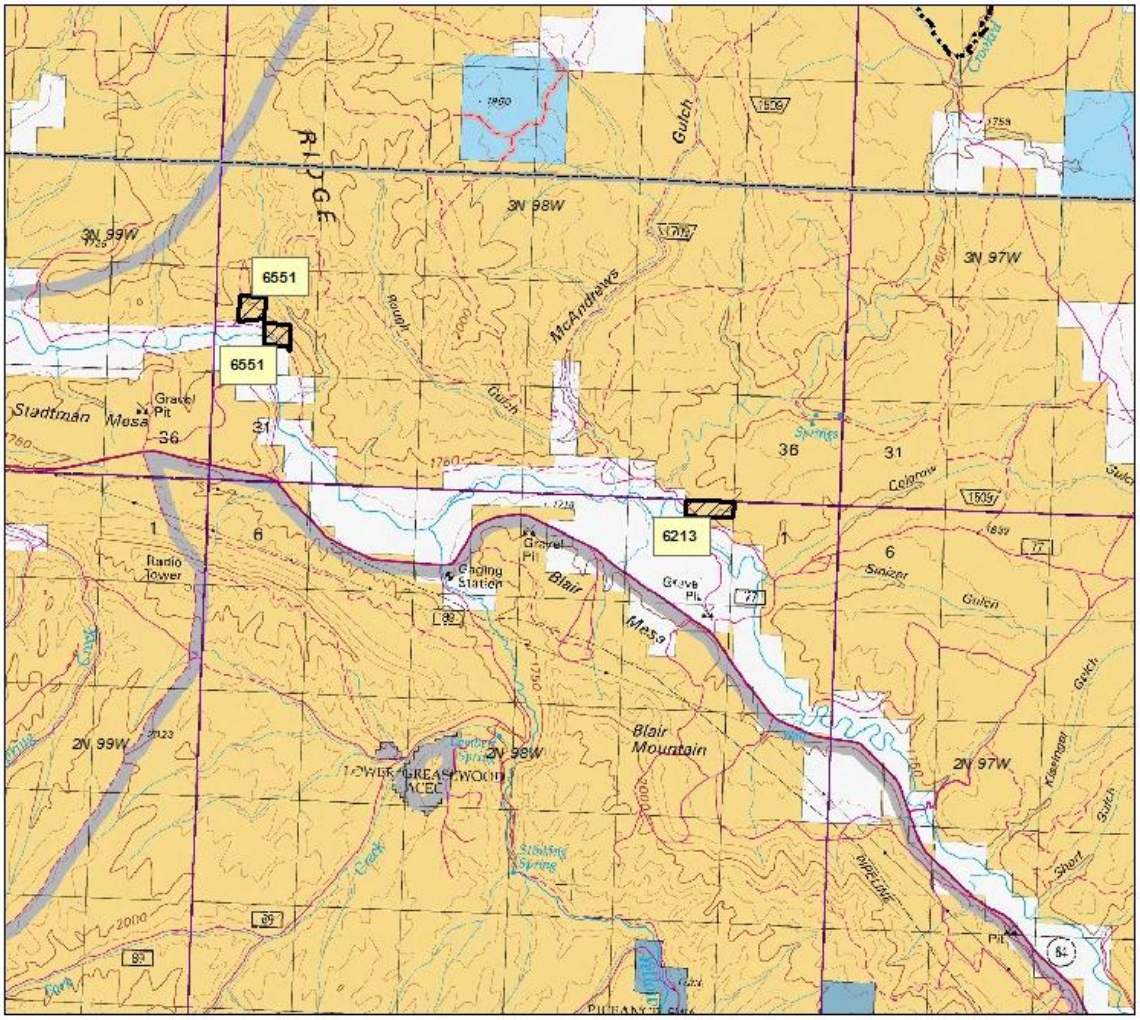
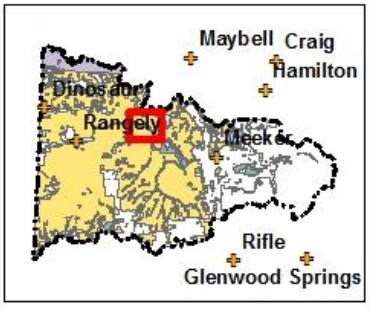


May 2013 Oil and Gas Lease Sale Available
CountyBoundaries
FieldOffice_Boundary_WRFO

0 0.5 1 2 Miles

N



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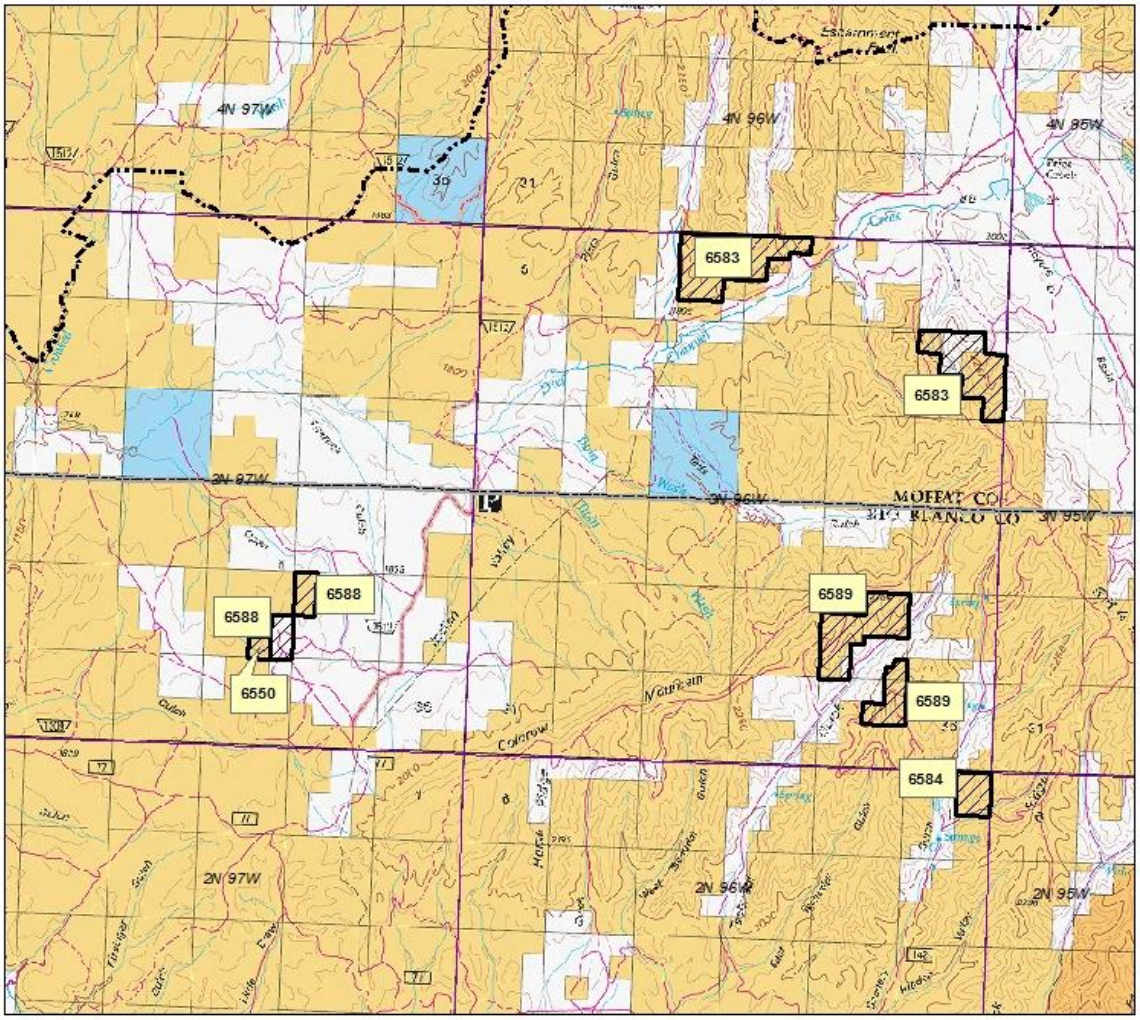
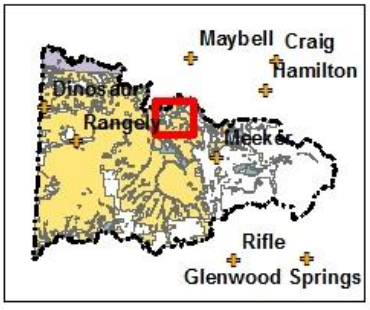


May 2013 Oil and Gas Lease Sale Available
CountyBoundaries
FieldOffice_Boundary_WRFO

0 0.5 1 2 Miles

N



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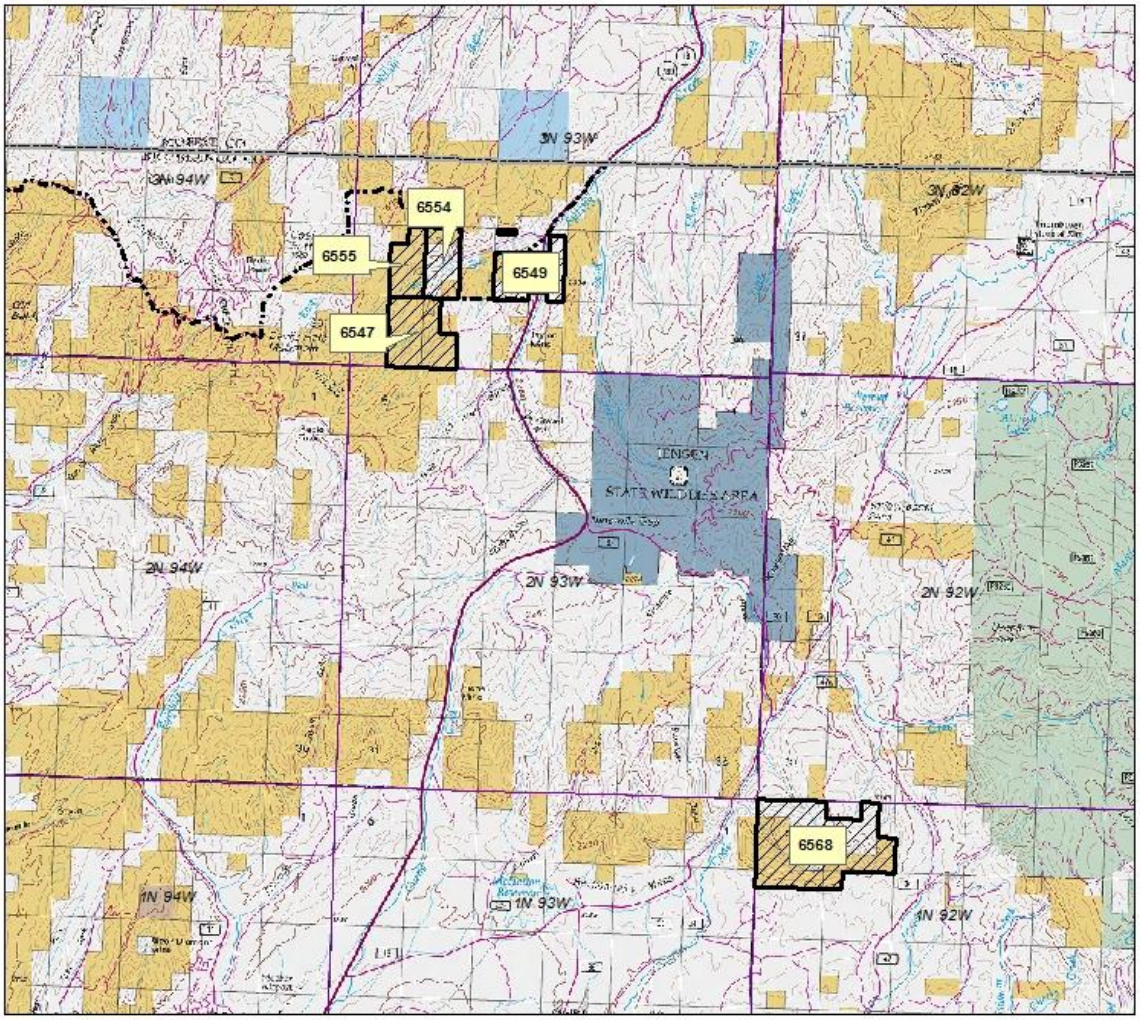
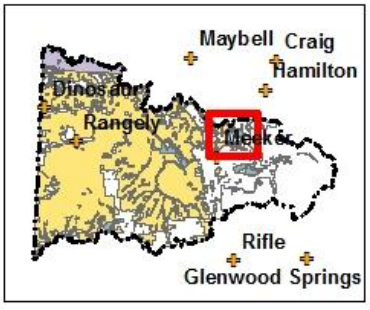


May 2013 Oil and Gas Lease Sale Available
CountyBoundaries
FieldOffice_Boundary_WRFO

0 0.5 1 2 Miles

N



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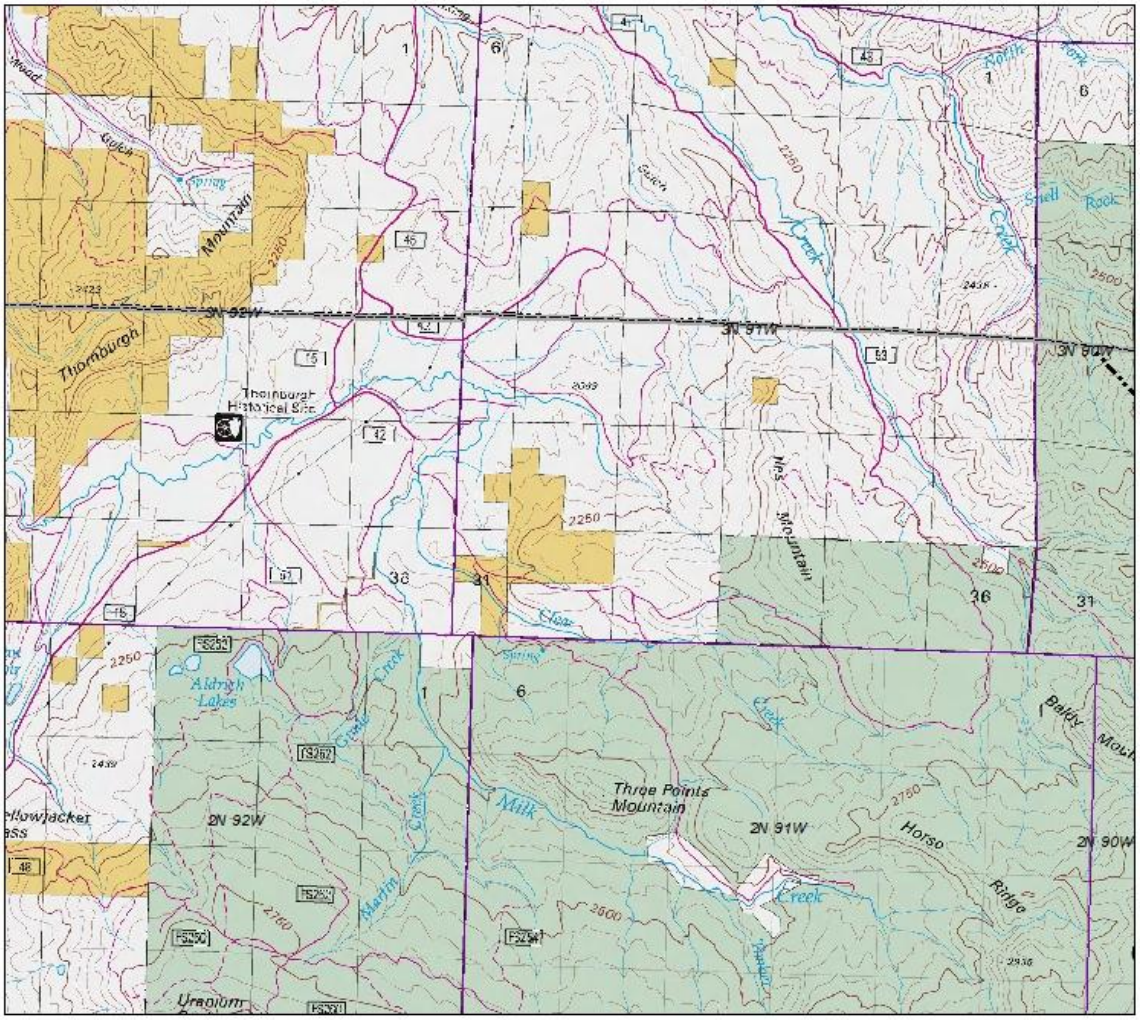

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Attachment F – Exhibits Description

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:

<LEGAL_DESCRIPTIONS>

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:

<LEGAL_DESCRIPTIONS>

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-03

CONTROLLED SURFACE USE STIPULATION

Surface occupancy or use is subject to the following special operating constraints:

(1) Prior to authorizing activities in this area, the Field Manager will confer or consult with the FWS as required by Section 7 of the Endangered Species Act. Depending on the scope of the proposed action, a plan of development may be required that demonstrates how the proposed activities would be conducted or conditioned to avoid the direct or indirect loss of black-footed ferrets or to avoid affecting the capability of the site to achieve reestablishment objectives.

(2) The Field Manager may impose land use measures and limitations derived from a site specific ferret reintroduction and management plan (see below). The measures and limitations would be designed to avoid, or reduce to acceptable levels, the short and long term adverse effects on ferret survival, behavior, reproductive activities, and/or the area's capacity to sustain ferret population objectives.
Examples of measures and limitations include:
a) relocation of surface activities more than 656 feet;
b) deferring activities longer than 60 days;
c) limiting access to designated roads and trails;
d) modifications to project design to discourage raptor perching and prohibit the disruption of certain or all prairie dog burrow systems;

e) limiting surface disturbance to certain seasons and times of day;
f) requiring efforts to offset losses of, or expand suitable prairie dog habitats to compensate for, unavoidable habitat loss or adverse habitat modification.

(3) The following provisions are derived from "A Cooperative Plan for Black-footed Ferret Reintroduction and Management, Wolf Creek and Coyote Basin Management Areas":

a) A "Plan of Operations" will be developed for large or multi-year mineral development programs that occur on federal estate within Black-footed Ferret Management Areas.

b) Mineral development and utility installation activities will be designed to avoid adverse influence on prairie dog habitat. In the event adverse impacts to prairie dog habitat are unavoidable, activities will be designed to influence the smallest area practicable and/or those areas with the lowest prairie dog densities. When proposed developments cannot be designed or implemented to avoid substantive adverse impacts to the black-footed ferret or their habitat, the project proponents and appropriate agency(ies) would cooperatively develop a mitigation plan. The default objective for compensation is equal and in-kind replacement of the disturbed or destroyed prairie dog habitat via a cooperatively arranged expansion or enhancement of other prairie dog colonies in the Management Area.

c) Ferret occupation at the site of a proposed commercial activity may require special mitigation measures (e.g., delay of activities, capture and relocation of ferrets, habitat mitigation, modification to the design of activities or facilities, singularly or in combination). The course of events chosen will be determined cooperatively by the operator, CDOW, and FWS at the time of an identified conflict. Reliable evidence of a ferret occupying a proposed project vicinity during the reproductive period may warrant imposing measures as COAs in an effort to reduce the risk of compromising ferret reproductive efforts. Such measures may include relocating the proposed facility, modifying the conduct of an activity, or imposing a timing limitation (1 May to 15 July) on suitable habitats within 0.5 mile of the documented evidence.

d) On-site habitat reclamation will be required upon cessation of temporary (less than two years) surface disturbances as necessary.

e) As a general rule, acre-for-acre mitigation will be required for habitat lost due to permanent (equal to or greater than two years) surface disturbances.

Examples of mitigation forms are listed below:

i) Vegetation Treatment. Burning, mechanical, and/or chemical treatments applied to areas with excessive or otherwise incompatible vegetation adjacent to existing towns and likely to be colonized by prairie dogs following land treatment.

ii) Relocation of Prairie Dogs. Prairie dogs translocated from the site of surface disturbance to an area with vacant burrow systems.

iii) Create New Burrow Systems. The construction of artificial burrows in potential habitat which is lacking burrows and relocating affected prairie dogs to the artificial burrows.

iv) Habitat Banking. To avoid the inconvenience and inefficiency of implementing a large number of small mitigation projects over time, operators would have the option of implementing larger mitigation projects that could be used as a credit against future habitat modifications.

On the lands described below:

<LEGAL_DESCRIPTIONS>

For the purpose of:

Protecting: BLACK-FOOTED FERRET REINTRODUCTION 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, in conference with FWS, may authorize surface disturbance or use within these areas if an environmental analysis finds that the activity as proposed or conditioned, would not adversely influence ferret recovery, or conflict with the ferret reintroduction and management plan.

MODIFICATION:
The Area Manager, in conference with FWS, may modify the terms of the CSU if the proposed action is shown to be compatible with ferret recovery goals and/or the ferret reintroduction and management plan.

WAIVER:
The Area Manager, in conference with FWS, may grant a waiver if extirpation of wild, free roaming ferret populations culminates in the discontinuance of the species recovery program, or local reintroduction efforts are otherwise abandoned.

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:

<LEGAL_DESCRIPTIONS>

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.

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 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 Parks and Wildlife.

MODIFICATION: Integral with exception and stipulation.

WAIVER: None

EXHIBIT WR-CSU-06

CONTROLLED SURFACE USE STIPULATION

Surface occupancy or use is subject to the following special operating constraints:

Prior to authorizing surface disturbance of occupied stream reaches or within watersheds contributing to occupied habitats, the Area Manager may require the proponent/applicant to submit a plan of development that would demonstrate that the proposed action would not:

1) increase stream gradient;

2) result in a net increase in sediment contribution;

3) decrease stream channel sinuosity;

4) increase the channel width to depth ratio;

5) increase water temperature;

6) decrease vegetation derived stream shading; and

7) degrade existing water quality parameters, including specific conductance, turbidity, organic/inorganic contaminant levels, and dissolved oxygen in occupied reaches or contributing perennial or intermittent tributaries.

If approvals are granted and development results in these standards being exceeded, additional measures would be required to correct the deficiencies. The proponent may be required to monitor stream/channel responses throughout the life of the project.

On the lands described below:

<LEGAL_DESCRIPTIONS>

For the purpose of:

Protecting: COLORADO RIVER CUTTHROAT TROUT HABITAT.
This is a controlled surface use area for protecting aquatic habitats occupied by populations of Colorado River cutthroat trout.

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 authorize surface disturbance in these areas if an environmental analysis indicates that the project would have no adverse influence on identified stream characteristics.

MODIFICATION:
Short term transgressions of the stream characteristics listed above may be allowed if the Area Manager determines, through environmental analysis, that short term deviations will have no adverse consequences on affected channel reaches beyond the construction phase of the project.

WAIVER:
In the event the population status of Colorado River cutthroat trout warrants downgrading, this stipulation may be replaced by less stringent criteria.

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 Parks and 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:

<LEGAL_DESCRIPTIONS>

EXHIBIT WR-NSO-01

NO SURFACE OCCUPANCY STIPLATION

No surface occupancy or use is allowed on the lands described below:

<LEGAL_DESCRIPTIONS>

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:
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-02

NO SURFACE OCCUPANCY STIPULATION

No surface occupancy or use is allowed on the lands described below:

<LEGAL_DESCRIPTIONS>

For the purpose of:

Protecting: SPECIAL STATUS RAPTORS. This area encompasses the nests of special status raptors, including listed, proposed, or candidate species for listing under the Endangered Species Act and Bureau of Land Management sensitive species. Surface occupancy is not allowed within 1/4 mile of the 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. An exception may also be granted by the Area Manager if it is determined that the nature or conduct of the proposed or conditioned activity 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 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 delisted, the no surface occupancy buffer area may be modified to an appropriate level.

WAIVER:
A waiver may be granted if the species becomes extinct or if site conditions change such that there is no reasonable likelihood of occupation for a subsequent minimum period of 10 years.

EXHIBIT WR-NSO-03

NO SURFACE OCCUPANCY STIPULATION

No surface occupancy or use is allowed on the lands described below:

<LEGAL_DESCRIPTIONS>

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.

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:

<LEGAL_DESCRIPTIONS>

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-NSO-06

NO SURFACE OCCUPANCY STIPULATION

No surface occupancy or use is allowed on the lands described below:

<LEGAL_DESCRIPTIONS>

For the purpose of:

Protecting: AREAS OF CRITICAL ENVIRONMENTAL CONCERN (ACEC). These ACECs contain vertebrate and/or invertebrate fossils of high scientific value or possess plant species that are listed as threatened or endangered, candidates for listing, Bureau of Land Management sensitive, State of Colorado plant species of concern, or remnant

vegetation associations. Surface occupancy or disturbance will not be allowed within the boundaries of the ACEC.

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 to this stipulation if, after an on the ground plant inventory is conducted, an environmental analysis indicates that the nature or conduct of the action, as proposed or conditioned, would not directly or indirectly affect the identified important values of the ACEC.

MODIFICATION: None

WAIVER: None

EXHIBIT WR-NSO-08

NO SURFACE OCCUPANCY STIPULATION

No surface occupancy or use is allowed on the lands described below:

<LEGAL_DESCRIPTIONS>

For the purpose of:

Protecting: KNOWN & POTENTIAL HABITAT OF LISTED & CANDIDATE THREATENED OR ENDANGERED PLANT SPECIES. This area contains threatened or endangered plants, candidate threatened or endangered plants, or potential habitat for these plants. No surface occupancy will be allowed on mapped populations of these plants.

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:
The Area Manager may grant an exception if an inventory and subsequent environmental analysis indicates that the nature or conduct of the action, as proposed or conditioned, would not directly or indirectly affect plant populations.

MODIFICATION: None

WAIVER: None

EXHIBIT WR-NSO-09

NO SURFACE OCCUPANCY STIPULATION

No surface occupancy or use is allowed on the lands described below:

<LEGAL_DESCRIPTIONS>

For the purpose of:

Protecting: SENSITIVE PLANTS & REMNANT VEGETATION ASSOCIATIONS. This area contains Bureau of Land Management sensitive plants and remnant vegetation associations. Surface occupation will not be allowed within known populations of these plants.

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:
The Area Manager may grant an exception if an inventory and subsequent environmental analysis indicated that the nature or conduct of the action, proposed or conditioned, would not directly or indirectly affect plant populations. An exception may also be applied if the no surface occupancy stipulation would hinder or preclude the exercise of valid existing rights. Under that circumstance, protection of the plants would be afforded through Conditions of Approval, that would require reclamation of disturbed areas to include utilizing native seed mixes in remnant vegetation association areas, and reproducing sensitive species via transplant or some other means in areas containing sensitive species.

MODIFICATION: None

WAIVER: None

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:

<LEGAL_DESCRIPTIONS>

For the purpose of (reasons):

Protecting: LISTED, PROPOSED, OR CANDIDATE THREATENED OR ENDANGERED & BUREAU OF LAND MANAGEMENT SENSITIVE RAPTORS OTHER THAN BALD EAGLE AND FERRUGINOUS HAWKS: 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.

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-02

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 nests from December 15 through July 15, or until fledgling and dispersal of young. (Development activities will be allowed from July 16 through December 14) .

On the lands described below:

> <LEGAL_DESCRIPTIONS>

For the purpose of (reasons):

> Protecting: BALD EAGLE NESTS: This area encompasses bald eagle 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 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.

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. 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 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-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:

> <LEGAL_DESCRIPTIONS>

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.

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:

> <LEGAL_DESCRIPTIONS>

For the purpose of (reasons):

> PROTECTING OTHER RAPTORS: This area encompasses the nests of raptors that are other than threatened, endangered, or candidate species.

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.

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:

> <LEGAL_DESCRIPTIONS>

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:

> <LEGAL_DESCRIPTIONS>

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 Parks and 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 Parks and 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 Parks and Wildlife agree to compensation that satisfactorily offset detrimental impacts to elk production or habitat condition.

WAIVER:
This stipulation may be waived if Colorado Parks and 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:

> <LEGAL_DESCRIPTIONS>

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 Parks and 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.

MODIFICATION:
The Area Manager may modify the size and time frames of this stipulation if Colorado Parks and 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 Parks and Wildlife agree to habitat compensation that satisfactorily offsets detrimental impacts to activity or habitat condition.

WAIVER:
This stipulation may be waived if Colorado Parks and 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:

> <LEGAL_DESCRIPTIONS>

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 Parks and 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 Parks and 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.

MODIFICATION:
The Area Manager may modify the size and time frames of this stipulation if Colorado Parks and 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 Colorado Parks and 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 WR-TL-10

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 will be allowed between December 16 and March 15.
> (Development activities will be allowed from March 16 through December 15.)

On the lands described below:

> <LEGAL_DESCRIPTIONS>

For the purpose of (reasons):

> Protecting: SAGE-GROUSE WINTER CONCENTRATION AREAS.
> This area encompasses sagebrush habitats that are occupied by wintering concentrations of grouse, or represent the only habitats that remain available for use during periods of heavy snowpack. Colorado Parks and Wildlife has indicated that these features exist on public lands within the White River Resource Area but have not yet delineated specific areas that will be subject to this timing restriction.

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:
Specific exception language will be developed in cooperation with Colorado Parks and Wildlife after the affected areas have been delineated.

MODIFICATION:
Specific modification language will be developed in cooperation with Colorado Parks and Wildlife after the affected areas have been delineated.

WAIVER: Specific waiver language will be developed in cooperation with Colorado Parks and Wildlife after the affected areas have been delineated.

EXHIBIT WR-LN-02

LEASE NOTICE

PALEONTOLOGICAL VALUES: This lease encompasses a Potential Fossil Yield Classification Class 4 or 5 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:

<LEGAL_DESCRIPTIONS>

EXHIBIT CO-01

NO SURFACE OCCUPANCY STIPULATION

No surface occupancy or use is allowed on the lands described below (legal description or other description):

<LEGAL_DESCRIPTIONS>

For the purpose of:

> Protection of surface and longwall coal mines where oil and gas development is incompatible with planned coal extraction.

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.)

Exception Criteria:
This stipulation may be waived if the lessee agrees that any well approved for drilling will be plugged below the coal when the crest of the highwall or longwall approaches within 500 feet of the well. A suspension of operations and production will be considered for the lease only when a well is drilled and then plugged, and a new well or reentry is planned when the mine moves through the location.

EXHIBIT CO-29

LEASE NOTICE

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:

<LEGAL_DESCRIPTIONS>