United States Department of the Interior
Bureau of Land Management

Environmental Assessment
for the White River Field Office
June 2014 Competitive Oil & Gas Lease Sale

White River Field Office
220 East Market Street
Meeker, CO 81641

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CHAPTER 1 - INTRODUCTION

1.1 IDENTIFYING INFORMATION

BACKGROUND:

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

The BLM's Colorado State Office conducts quarterly competitive lease sales to sell available oil and gas lease parcels. A Notice of Competitive Lease Sale, which lists lease parcels to be offered at the auction, is published by the Colorado State Office at least 90 days before the auction is held. Lease stipulations applicable to each parcel are specified in the Sale Notice. The decision as to which public lands and minerals are open for leasing and what leasing stipulations may be necessary, based on information available at the time, is made during the land use planning process. Constraints on leasing and any future development of split estate parcels are determined by the BLM in consultation with the appropriate surface management agency or the private surface owner.

In the process of preparing a lease sale, the BLM, Colorado 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 and that appropriate stipulations have been included; verify whether any new information has become available that might change any analysis conducted during the planning process; confirm that appropriate consultations have been conducted; and identify any special resource conditions of which potential bidders should be made aware. The nominated parcels are posted online for a two week public scoping period. This posting also includes the appropriate stipulations as identified in the relevant RMP. The BLM prepares an analysis consistent with the National Environmental Policy Act (NEPA), usually in the form of an Environmental Assessment (EA). Comments received from the public are reviewed and incorporated into the NEPA document, as applicable.

After the Field Office completes the draft parcel review and NEPA analysis and returns them to the State Office, a list of available lease parcels and associated stipulations is made available to the public through a Notice of Competitive Lease Sale (NCLS). Lease sale notices are posted on the Colorado BLM website at: http://www.blm.gov/nm/st/en/prog/energy/oil_and_gas/lease_sale_notices.html. On rare occasions, the BLM may defer or withhold additional parcels prior to the day of the lease sale. In such cases, the BLM prepares an amendment to the sale notice.

If the parcels are not leased at the June 2014, lease sale, then they will remain available to be leased for a period of up to two years to any qualified lessee at the minimum bid cost. Parcels obtained in this way may be re-parceled by combining or deleting other previously offered lands. Mineral estate that is not leased within a two-year period after an initial offering will no longer be available, and must go through a competitive lease sale process again prior to being leased.

The act of leasing does not authorize any development or use of the surface of lease lands, without further application by the operator and approval by the BLM.

In the future, the BLM may receive Applications for Permit to Drill (APDs) for those parcels that are leased. If APDs are received, the BLM conducts additional site-specific NEPA analysis before deciding whether to approve the APD, and what conditions of approval (COA) should apply.

Forty-five parcels comprising 65,167.27 acres within the White River Field Office (WRFO) were nominated for the June 2014 Competitive Oil and Gas Lease Sale. This figure is comprised of 49,246.79 acres of federal land and 15,920.48 acres of split-estate land. The legal descriptions of the nominated parcels are in Attachment A.

This EA documents the review of the nominated parcels under the administration of the White River Field Office. It serves to verify conformance with the approved land use plan, and provides the rationale for the field office's recommendation to offer or to defer particular parcels from a lease sale.

In accordance with BLM Instruction Memorandum (IM)-2010-071, the WRFO will "…defer the sale of parcels, in whole or in part, that industry has proposed for oil and gas …leasing in [sage-grouse] priority habitat …" (see Section 2.3). This leaves 33 parcels containing 48,554.5 acres that will be analyzed in this EA. Of those acres, 44,194.5 are federal lands and 4,360 acres are split estate, meaning the minerals are owned by the federal government, but the surface is not. The legal descriptions of the parcels excluding the priority greater sage-grouse (GRSG) habitat are in Attachment A-1. (Note that the discussion in this document refers to both preliminary priority habitat and priority habitat; they are the same thing. The same holds true for discussions of sage-grouse preliminary general habitat and general habitat.)

In accordance with Colorado BLM IM-CO-2012-027 and BLM IM-2010-117, this EA was released for 30 days of public comment (see Section 1.4.2).

1.2 PROJECT LOCATION AND LEGAL DESCRIPTION

LEGAL DESCRIPTION:
Please see Attachments A, B, C and Maps in Attachment E.

1.3 PURPOSE AND NEED

The purpose of the action is to consider opportunities for private individuals or companies to explore and develop oil and gas resources on specific public lands through a competitive leasing process.

The need for the action is to respond to the nomination or expression of interest for leasing, consistent with the BLM's responsibility under the Mineral Leasing Act (MLA), as amended, to promote the development of oil and gas on the public domain. Parcels may be nominated by the public, the BLM or other agencies. The MLA establishes that deposits of oil and gas owned by the United States are subject to disposition in the form and manner provided by the MLA under

the rules and regulations prescribed by the Secretary of the Interior, where consistent with FLPMA and other applicable laws, regulations, and policies.

1.3.1 Decision to be Made

The BLM will decide whether to lease the nominated parcels and, if so, under what terms. This decision will be made on a parcel by parcel basis and will not necessarily reflect one alternative or another in its entirety. The BLM could choose to implement portions of any of the alternatives.

1.4 PUBLIC PARTICIPATION

1.4.1 Scoping

The principal goal of scoping is to identify issues, concerns, and potential impacts that require detailed analysis. The BLM uses both internal and external scoping to identify potentially affected resources and associated issues.

Internal scoping was conducted through meetings of an interdisciplinary (ID) team of resource specialists and discussion of the nominated parcels. Internal scoping initially identified potential concerns regarding oil and gas leasing within the lands containing wilderness characteristics, greater sage-grouse habitat, fisheries, wildlife, recreation, wild horses, Colorado River cutthroat trout (CRCT) fisheries, and 100-year floodplains.

External scoping was conducted by posting the nominated lease parcels, and stipulations from the RMP, for two weeks from August 5 to August 20, 2013. Stipulation summaries, GIS shapefiles, and maps were posted on the BLM Colorado State Office website: http://www.blm.gov/co/st/en/BLM_Programs/oilandgas/oil_and_gas_lease/2014/may_2014_lease_sale.html. This external scoping process gave the public an opportunity to provide comments, which the BLM considered and incorporated into the EA as appropriate. The BLM sent letters to surface owners whose land overlies federal minerals proposed for leasing.

Notification of the nominations was sent to 23 land owners including Colorado Parks and Wildlife (CPW).

Two scoping comment letters were received from CPW and Rocky Mountain Wild. The letters identified recommended deferrals from leasing and stipulations that the commenters believed should be applied to various lease parcels (see Section 2.3 and Table 4).

The BLM considered several issues identified during project scoping. After review of available information, the ID Team determined that the following issues did not have the potential to be significantly impacted by any of the alternatives and therefore are dismissed from detailed analysis: fire management, realty transactions, wild and scenic rivers.

1.4.2 Public Comment Period

The EA and the unsigned Finding of No Significant Impact (FONSI) were available for a 30-day public review and comment period beginning November 27, 2013 and ending December 30, 2013. The document was available online at the BLM Colorado State Office website http://www.blm.gov/co/st/en/BLM_Programs/oilandgas/oil_and_gas_lease/2014/May_2014_leas

e_sale.html and in the public room at the White River Field Office. The document was able to be viewed at the field office during regular business hours (7:45 a.m. to 4:30 p.m.), Monday through Friday, except holidays.

Issues Identified: The BLM received seven letters as a result of this comment period. These letters provided the BLM information on the concerns of the public. The BLM's responses to these comments are included as Attachment F.

As a result of comments and review of the Preliminary EA, it was determined that some of the parcels were incorrectly labeled greater sage-grouse general habitat when it was priority habitat, and vice versa. Additionally, 140 acres of habitat was not identified. Approximately 1,880 acres of priority habitat was added and 1,740 acres of general habitat was reduced compared to what was published in the Preliminary EA (Table 1). These changes have been made throughout the document and are reflected in the total acres available under both Alternatives 2 and 3.

Table 1: Corrections to Greater Sage-grouse Habitat Designations

Parcel ID	GRSG priority habitat	GRSG general habitat
Corrected Acreages		
6768	1,263.47	520
6772	440	720
6814	120	125.89
6815	80	160
6816	159.22	22.06
Total	**2,062.69**	**1,547.95**
Original Acreages		
6768	0	1,783.47
6772	0	1,160
6814	0	265.89
6815	0	80
6816	181.28	0
Total	**181.28**	**3,289.36**
Difference	1,881.41	-1,741.41

The BLM took another hard look at the impacts analysis for lands with wilderness characteristics to determine if values could be protected using the ability to move locations 200 meters to avoid resource conflicts. Additional text was added to Section 3.4.3.3.

Corrections were made in the identification of acres per soil type as well as which parcels were in hydrologic basins in Sections 3.4.1. Corrections were made in the identification of parcels containing Special Status Plant species in Section 3.4.3.5, and the corresponding stipulations to be applied in Attachment C.

CHAPTER 2 - ALTERNATIVES

2.1 INTRODUCTION

This chapter describes the alternatives analyzed in detail. Alternatives considered but not analyzed in detail are also discussed.

2.2 ALTERNATIVES ANALYZED IN DETAIL

2.2.1 Alternative 1: No Action Alternative

The BLM NEPA Handbook (H-1790-1) states that for EAs the No Action Alternative generally means that the Proposed Action would not take place. In the case of a lease sale, the leasing of particular parcels would not take place.

Under the No Action Alternative, the BLM would defer all nominated lease parcels from the June 2014 lease sale. The parcels could be considered 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.

2.2.2 Alternative 2: Lease All Nominated Parcels in Conformance with the RMP Outside of Greater Sage-Grouse Priority Habitat

Under this alternative, the BLM would lease Federal mineral estate in all nominated parcels available for leasing in the resource area (excluding those portions of parcels within greater sage-grouse priority habitat, which are not being considered for leasing at this time) in accordance with the 1997 White River ROD/RMP. The current lease sale includes parcels in Rio Blanco, Moffat, and Garfield Counties. Those lands proposed for lease under this alternative total 48,554.5 acres of federal mineral estate in 33 parcels. This includes 44,194.5 acres of federal lands and 4,360 acres of split estate (see Attachment A-1). The lands have been grouped into appropriate lease parcels for competitive sale as oil and gas leases in accordance with the 43 CFR 3100 regulations. The leases would include the standard lease terms and conditions for development of the surface of oil and gas leases provided in 43 CFR 3100. Stipulations to protect other surface and subsurface resources would apply, as prescribed by the RMP. These stipulations are described in Attachments A-1 and D.

Once a lease is issued, additional environmental analysis is completed prior to the BLM approving any surface disturbing activity. The BLM could apply mitigation measures to surface use activities associated with existing land use authorizations as a condition of approval (COA). The BLM has the discretion to modify surface operations to change or add specific mitigation measures when supported by scientific analysis. All mitigation/conservation measures not already required as stipulations would be analyzed in a site-specific NEPA document, and be incorporated, as appropriate, into COAs of the permit, plan of development, and/or other use authorizations. In discussing surface use rights, 43 CFR 3101.1-2 states that the lessee has the right “to use so much of the leased lands as is necessary to explore for, drill for, mine, extract, remove and dispose of all the leased resource” but lessees are still subject to lease stipulations, nondiscretionary statutes, and “such reasonable measures as may be required by the authorized officer to minimize adverse impacts to other resource values, land uses or users not addressed in

the lease stipulations at the time operations are proposed". Lessees are also required to conduct operations in a manner that not only "results in maximum ultimate economic recovery of oil and gas with minimum waste" but also "protects other natural resources and environmental quality" (43 CFR 3162.1). The BLM may require reasonable measures consistent with lease rights granted, potentially including relocation of proposed operations by more than 200 meters or prohibiting surface disturbing operations for more than 60 days, when such action has been determined, through a site-specific NEPA analysis, to be necessary to minimize adverse impacts to other resource values, land uses, or users.

2.2.3 Alternative 3: Deferral of Parcels Containing Important Greater Sage-Grouse General Habitat, Lands with wilderness characteristics, 100-year floodplains, or are within the proposed Dinosaur Trail MLP

Under Alternative 3, the BLM would offer 21 parcels totaling 17,431.45 acres for lease and defer 13,145.11 acres from the sale. Of the acres available for lease, 13,751.45 are federal lands and 3,680 acres are split estate (see Table 2). Attachment B lists all parcels or portions of parcels that would be deferred from the lease sale under Alternative 3. Attachment C lists all parcels that would be available for lease under Alternative 3 with applied stipulations. Attachment D contains descriptions of the applicable stipulations, and Attachment E contains maps of the parcels.

The BLM's ability to apply mitigation measures to surface use activities associated with existing land use authorizations as a COA or to modify surface operations when supported by a scientific analysis is the same as described in Alternative 2.

Justification for deferrals: The deferral process for nominated parcels was established to address situations in which legitimate questions or controversy arises over the leasability of a parcel. The deferral process does not necessarily withdraw a parcel from the leasing arena, but merely indicates that further analysis is needed before possibly being reintroduced in a future lease sale. In the Oil and Gas Development Proposed Resource Management Plan Amendment (RMPA)/Final Environmental Impact Statement, the WRFO is considering adopting the Dinosaur Trail MLP. Under Alternative 3, leases would be deferred if they are either entirely or partially within the proposed MLP. The BLM plans to publish the Oil and Gas Development Proposed RMPA/FEIS in spring 2014.

Table 2: Parcels with Recommended Deferrals

Parcel ID	Nominated Acreage[1]	Acreage Deferred	Acreage Available	Reason 1	Reason 2	Reason 3
6753	1,993.95	1,993.95	0	floodplain	Dinosaur Trail MLP	
6754	1,198.76	1,198.76	0	floodplain	Dinosaur Trail MLP	
6755	1,080	1,080	0	lands with wilderness characteristics	Dinosaur Trail MLP	
6756	2,366.01	2,366.01	0	GRSG	Dinosaur Trail MLP	
6757	2,221.04	2,221.04	0	lands with wilderness characteristics	GRSG	Dinosaur Trail MLP
6758	1,464.43	1,464.43	0	lands with wilderness characteristics	floodplain	Dinosaur Trail MLP
6759	2,509.12	2,509.12	0	lands with wilderness characteristics	GRSG	Dinosaur Trail MLP
6760	400	0	400			
6761	884.18	0	884.18			
6764	1,254.48	1,254.48	0	Dinosaur Trail MLP		
6765	2,400	2,120	320	lands with wilderness characteristics		
6766	1,120	1,080	40	lands with wilderness characteristics		
6768	720	520	200	GRSG		
6769	2,560	240	2,280	lands with wilderness characteristics		
6770	2,440	0	2,440			
6771	1,975.56	0	1,975.56			
6772	1,480	720	760	GRSG		
6773	2,240	1,080	1,160	lands with wilderness characteristics		
6776	2,520	1,600	920	lands with wilderness characteristics		
6777	1,440	880	560	lands with wilderness characteristics		
6778	520	400	120	lands with wilderness characteristics		

Parcel ID	Nominated Acreage[1]	Acreage Deferred	Acreage Available	Reason 1	Reason 2	Reason 3
6779	2,320	2,320	0	lands with wilderness characteristics		
6783	294.13	0	294.13			
6790	636.57	636.57	0	floodplain	Dinosaur Trail MLP	
6812	40	0	40			
6813	640	80	560	lands with wilderness characteristics		
6814	225.89	145.89	80	GRSG	lands with wilderness characteristics	
6815	720	720	0	GRSG	CRCT	
6816	1920	22.06	1,897.94	GRSG		
6817	2,520	1,942.8	577.2	lands with wilderness characteristics		
6833	440	440	0	lands with wilderness characteristics		
6836	1,720.52	558.08	1,162.44	lands with wilderness characteristics		
6837	2,311.92	1,551.92	760	lands with wilderness characteristics		
Totals	**48,576.56**	**31,145.11**	**17,431.45**			

[1]Nominated acreage as described in Alternative 2; this does not include parcels or portions of parcels that are within GRSG Preliminary Priority Habitat (which were not considered for leasing under Section 2.3).

2.3 *ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL*

Lease all nominated parcels, including those portions in greater sage-grouse preliminary priority habitat

Table 3 shows the parcels containing sage-grouse habitat. The BLM considered leasing all nominated parcels, including those portions within sage-grouse priority habitat, but decided not to analyze this alternative in detail since WO-IM-2012-043 states that "field offices retain the discretion to not move forward with a nomination, or defer making a final decision on a leasing nomination until the completion of the LUP process described in the National Greater Sage-Grouse Planning Strategy for the affected area". The Northwest Colorado Greater Sage-Grouse Draft Land Use Plan Amendment and Environmental Impact Statement was published for public comment in August 2013; the Record of Decision for that document will determine which sage-grouse habitat areas should be available for leasing and under what lease stipulations.

Table 3: Parcels Containing Greater Sage-Grouse Habitat

Parcel ID	Original Acreage	Acreage within Priority Habitat	Acreage Recommended for Deferral within General Habitat
6756	2,366.01	0	93.84
6757	2,221.04	0	1,495.76
6759	2,509.12	0	1,140.23
6763	1,275.16	1,275.16	0
6767	1,043.3	1,043.3	0
6768	1,983.47	1,263.47	520
6772	1,920	440	720
6774	1,989.72	1,989.72	0
6775	706.58	706.58	0
6781	2,405.18	2,405.18	0
6782	715.48	715.48	0
6814	345.89	120	125.89
6815	800	80	160
6816	2,079.22	159.22	22.06
6818	641.52	641.52	0
6819	1,920.08	1,920.08	0
6820	1,330	1,330	0
6821	897.5	897.5	0
6822	482	482	0
6823	1,121.5	1,121.5	0
Totals	**28,752.77**	**16,590.71**	**4,277.78**

The parcels (or portions of parcels) containing preliminary priority habitat have been removed from consideration for leasing and are not analyzed in either Alternatives 2 or 3. Deferring

leasing of important habitat within mapped sage-grouse general habitat was analyzed in detail in Alternative 3.

Lease all parcels with an NSO stipulation
An alternative was considered that would offer all of the parcels that are administratively available for leasing with a no surface occupancy stipulation. This alternative was not carried forward for detailed analysis because it is not supported by the current RMP. It would only prohibit surface occupancy for oil and gas development whereas other non-oil and gas occupancy may not be similarly constrained. Further, it constrains oil and gas occupancy in areas where the RMP has determined that less restrictive stipulations would adequately mitigate the anticipated impact.

Defer additional parcels recommended by the public or add additional stipulations
Public scoping comments from Rocky Mountain Wild requested that additional parcels be deferred for leasing due to concerns about wildlife and special status plant resources. The BLM has reviewed this request and has determined it is not necessary to defer leasing of these parcels because the resource is either not known to be present in those areas (i.e., based upon local knowledge, professional judgment, and/or species maps produced by CPW) or the resource is adequately protected by existing lease stipulations. In regards to CPW's request to apply Exhibit WR-TL-08 to parcels containing winter range, this would not be in conformance with the RMP since the stipulation only applies to severe winter range.

Scoping letters recommended deferral of the entire parcels if they contained any of the listed resources in Table 4. This alternative was not carried forward into detailed analysis because it is not supported by the RMP or the Mineral Leasing Act; the BLM does not consider deferring portions of parcels when there are no resource concerns present simply because resource concerns may be present in other portions of the same parcel. Parcels were evaluated on a case-by-case basis and where stipulations could be applied in conformance with the RMP, the parcels (or portions of parcels) were considered for leasing with those stipulations. Deferral for the portion of parcels containing unresolved resource conflicts was analyzed in Alternative 3.

Table 4: Scoping Comment Recommendations for Leasing

		Rocky Mountain Wild Recommended Deferrals							CO Parks & Wildlife	
Parcel ID	**Nominated Acreage[1]**	**East Douglas Crk ACEC**	**Sage-Grouse**	**Bald Eagle**	**Black-footed Ferret/ Prairie Dog**	**Pike-minnow**	**CO State Wildlife Area**	**Bladderpod & CNHP Conservation Area**	**Defer CPW Surface**	**Add Stip WR-TL-08**
6753	1,993.95	X	X	X		X				
6754	1,198.76	X		X						
6755	1,080		X		X					
6756	2,366.01		X	X	X					
6758	1,464.43		X	X						
6761	884.18							X		
6764	1,254.48				X					
6766	1,120	X					X			
6768	720	X	X				X		X	
6769	2,560	X					X			
6770	2,440	X	X				X			
6771	1,975.56	X	X				X			
6772	1,480	X					X		X	
6773	2,240	X					X			
6777	1,440	X					X			
6778	520			X						
6783	294.13			X				X		
6790	636.57			X						
6812	40									
6813	640			X						
6814	225.89									X
6817	2,520									X
6836	1,720.52		X	X						
6837	2,311.92			X						X

[1]Nominated acreage as described in Alternative 2; this does not include parcels or portions of parcels that are within GRSG Preliminary Priority Habitat (which was not considered for leasing under Section 2.3).

2.4 PLAN CONFORMANCE REVIEW

Alternatives 2 and 3 were reviewed for conformance (43 CFR 1610.5, BLM 1617.3) with the following plan:

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

Date Approved: July 1997

Decision Language: The RMP designated approximately 1,696,000 acres of federal mineral estate open for continued oil and gas development and leasing. The RMP also describes specific stipulations that would be attached to new leases offered in certain areas. Under the action alternatives, parcels to be offered would be leased subject to stipulations prescribed by the RMP. Therefore, the alternatives considered conform to the fluid mineral leasing decisions in the RMP, and are consistent with the RMP's goals and objectives for natural and cultural resources.

CHAPTER 3 – AFFECTED ENVIRONMENT AND EFFECTS

3.1 INTRODUCTION

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 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. The following resources were determined to not be present or not expected to be impacted by the Proposed Action: fire management, wilderness study areas, realty authorizations, and wild and scenic rivers.

3.2 ENVIRONMENTAL CONSEQUENCES OF THE NO ACTION ALTERNATIVE

The No Action Alternative is used as the baseline for comparison of the alternatives. Under the No Action Alternative, the 33 parcels totaling 48,554.5 acres would not be leased. There would be no subsequent impacts from oil and/or gas construction, drilling, and production activities. The No Action Alternative would result in the continuation of the current land and resource uses in the proposed lease areas.

The BLM assumes that the No Action Alternative (no lease option) may result in a slight reduction in domestic production of oil and gas. This reduction would diminish federal and state royalty income, and increase the potential for federal lands to be drained by wells on adjacent private or state lands. The public's demand for oil and gas is not expected to change; 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 parcels are not leased, energy demand would continue to be met by other sources such as imported fuel, alternative energy sources (e.g., wind, solar), and other domestic fuel production. This displacement of supply could offset any reductions in emissions and disturbance achieved by not leasing the subject tracts in the short term.

While a no action alternative alleviates potential damage from energy development, cultural resources are constantly being subjected to site formation processes or events after deposition (Binford 1981, Schiffer 1987). These processes can be both cultural and natural and take place in an instant or over thousands of years. Cultural processes include any activities directly or indirectly caused by humans. Natural processes include chemical, physical, and biological processes of the natural environment that impinge and or modify cultural materials. A no action alternative will also result in a cultural study not being completed. Without cultural studies it can become difficult to make the appropriate decisions regarding National Register of Historic Places (NRHP) eligibility of resources and appropriate forms of mitigation. In addition, cultural and natural processes may obliterate important cultural resources before they can be documented and evaluated.

Not leasing these parcels removes, at least temporarily, the potential for subsequent exploration, development, and production of oil and gas in these areas. This would help prevent adverse effects to archaeological sites and traditional cultural properties. Continued energy development

in the area has an additive effect of changing the landscape from that ancestrally known by the tribes. There are no specific sites of concern yet identified in the lease parcels; it is rather the broader continued change that modern culture brings to the landscape.

3.3 PAST, PRESENT AND REASONABLY FORESEEABLE ACTIONS

NEPA requires federal agencies to consider the cumulative effects of proposals under their review. 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 future actions regardless of what agency . . . or person undertakes such other actions." In its guidance, the CEQ has stated 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" (in this case the area that might be influenced by Alternative 2).

Offering and issuing leases for the subject parcels, in and of itself, would not result in cumulative impacts to any resource. Nevertheless, future development of the leases could be an indirect effect of leasing. The 1996 White River Resource Area Proposed RMP and Final EIS, provides the BLM's analysis of cumulative effects of oil and gas development based on the reasonable, foreseeable oil and gas development scenario. This analysis is hereby incorporated by reference and is available at:
http://www.blm.gov/co/st/en/BLM_Programs/land_use_planning/rmp/archived/white_river.html.
The cumulative impacts analysis in the Proposed RMP and Final EIS accounted for the potential impacts of development of lease parcels in the planning area as well as past, present and reasonably foreseeable actions known at that time. This analysis expands upon the Proposed RMP and Final EIS analysis by incorporating new information.

The following activities will be considered in the cumulative impacts analysis of each alternative: livestock grazing, wild horse management and gathers, recreation, hunting, invasive weed inventory and treatment, grazing, range improvement projects (including water developments, fences, and cattle guards), wildfire and emergency stabilization/rehabilitation, wind energy meteorological towers, oil and gas development (including well pads, access roads, pipelines, gas plant and other facilities), power lines, oil shale exploration/development, seismic studies, and vegetation treatments.

Past Actions
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). Additionally, WRFO has a long history going back to the 1950's of interstate natural gas pipeline construction and major power line construction beginning in the 1960's. Beginning it the 1970s large power lines, (345 KV) were constructed to accommodate the power that would be available after completion of the Tri-state Generation Craig Plant. One 138 kV line from Craig to Rifle was upgraded to 230 kV in the 1970's also the WRFO has been

used for livestock grazing, solid mineral extraction, recreation (including hunting and fishing), and has a history recurring wildland fires.

Present Actions
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.

Reasonably Foreseeable Future Actions
The map presented in the 2007 Reasonable Foreseeable Development (RFD) scenario for potential oil and gas occurrence shows that most (approximately 77 percent) of the WRFO Planning Area has a moderate to high potential of encountering hydrocarbon-bearing rocks in the subsurface. Only the two major tectonic uplifts in the WRFO Planning Area, the Yampa Plateau and White River Uplift, are characterized by lesser hydrocarbon occurrence potential. Most of the unleased federal mineral estate occurs in these two regions. To the northwest, the Yampa Plateau structural uplift exhibits a relatively limited stratigraphic column of primarily Paleozoic and older rocks. Only a single USGS Uinta-Piceance Assessment Unit extends into this region. The White River Uplift in the eastern part of the study area also possesses a thin section of Paleozoic sedimentary rocks, sometimes unconformably overlain by Tertiary rocks of volcanic origin, and a single Assessment Unit extends into this region of lesser occurrence potential. Historically, these two areas of limited potential hydrocarbon occurrence in the WRFO Planning Area have demonstrated relatively low levels of drilling activity and an absence of significant commercial hydrocarbon production. Other reasonably foreseeable future actions could include additional major interstate pipelines and additional major high voltage interstate power line projects (e.g. Transwest Express, Energy Gateway South, Zephyr).

3.4 ENVIRONMENTAL CONSEQUENCES OF LEASING AND POTENTIAL DEVELOPMENT

3.4.1 Earth Resources

3.4.1.1 Air Quality and Climate

Affected Environment: The proposed lease parcels are in an attainment area for national and state air quality standards, based on a review of designated non-attainment areas for criteria pollutants published by the Environmental Protection Agency (EPA 2013). The parcels are located more than 10-miles from any non-attainment or special designation areas. Non-attainment areas are areas designated by U.S. Environmental Protection Agency (EPA) as having air pollution levels that persistently exceed the national ambient air quality (NAAQ) standards. The closest special designation areas are Dinosaur National Monument (designated Class II airshed with Prevention of Significant Deterioration (PSD) thresholds for sulfur oxides and

visibility), and the Flat Tops Wilderness Areas (designated Class I). The closest non-attainment areas in Colorado are along the Front Range corridor.

Ozone can cause breathing difficulties and worsen respiratory infections especially in the elderly, the young and those with pre-existing ailments such as asthma. Ozone advisories and alerts were issued in the winter of 2011 and 2013 for Rio Blanco County based on data collected from the Rangely monitoring site (BLM monitor). Since 2010, the Rangely and Dinosaur areas in Northwestern Colorado have measured high values of ozone during static air events. High ozone values are likely due in part to VOCs and nitrogen oxides emitted by oil and gas development in the Uinta basin, near Rangely and from power plants in Utah. Until this year the values at Rangely have not been high enough to lead to an exceedance of NAAQ standards. The fourth highest value for 2013 was 91 ppb and the average of the fourth highest values from 2011-2013 is above the 75 ppb NAAQS for the Rangely, Colorado monitor. Table 5 provides list of NAAQS for each criteria pollutant and averaging time.

Table 5: NAAQS (EPA 2013)

Pollutant [final rule cite]		Primary/ Secondary	Averaging Time	Level	Form
Carbon Monoxide [76 FR 54294, Aug 31, 2011]		primary	8-hour	9 ppm	Not to be exceeded more than once per year
			1-hour	35 ppm	
Lead [73 FR 66964, Nov 12, 2008]		primary and secondary	Rolling 3 mont average	0.15 μg/m^3	Not to be exceeded
Nitrogen Dioxide [75 FR 6474, Feb 9, 2010] [61 FR 52852, Oct 8, 1996]		primary	1-hour	100 ppb	98th percentile, averaged over 3 years
		primary and secondary	Annual	53 ppb	Annual Mean
Ozone [73 FR 16436, Mar 27, 2008]		primary and secondary	8-hour	0.075 ppm	Annual fourth-highest daily maximum 8-hr concentration, averaged over 3 years
Particle Pollution [Dec 14, 2012]	$PM_{2.5}$	primary and secondary	Annual	12 μg/m^3	Annual mean, averaged over 3 years
			24-hour	35 μg/m^3	98th percentile, averaged over 3 years
	PM_{10}	primary and secondary	24-hour	150 μg/m^3	Not to be exceeded more than once per year on average over 3 years
Sulfur Dioxide [75 FR 35520, Jun 22, 2010] [38 FR 25678, Sept 14, 1973]		primary	1-hour	75 ppb	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years
		primary	Annual	0.03 ppm	Arithmetic Average
		secondary	3-hour	0.5 ppm	Not to be exceeded more than once per year

The proposed lease parcels are in Rio Blanco County, Moffat County and Garfield County within the Western Counties Monitoring Region of Colorado (APCD 2010). Local air quality

parameters are measured at monitoring sites located at Meeker, Rangely, Dinosaur and Ripple Creek Pass near the Flat Tops Wilderness Area. Ozone data have been collected in Meeker and Rangely since 2010 and at Colorado National Monument in Mesa County since 2007.
Ozone is also measured at Dinosaur National Monument. The closest location for an Interagency Monitoring of Protected Visual Environments (IMPROVE) site is near the Flat Tops Wilderness, northeast of the Project Area. IMPROVE sites measure visibility impairment from air borne particles.

Table 6 shows monitored concentrations for select criteria pollutants for locations around the region. Notes for the monitored concentrations are also provided in Table 6. As shown, monitored concentrations are below the NAAQS.

Table 6: Background Concentrations for Select Criteria Pollutants

Pollutant	Averaging Time	Monitored Value*	NAAQS	Notes for Monitored Values and NAAQS
NO_2	1-hour	8.7 ppb	100 ppb	NAAQS: 98th percentile, averaged over 3 years. Monitored value: First maximum 1-hour value for year 2012 (Meeker, Colorado).
	Annual	1.64 ppb	53 ppb	NAAQS: Annual Mean Monitored value: Annual mean for year 2012 (Meeker, Colorado).
Ozone	8-hour	0.068 ppm	0.075 ppm	NAAQS: Annual fourth-highest daily maximum 8-hr concentration, averaged over 3 years. Monitored value: maximum 8-hr concentration for year 2012 (Meeker, Colorado.)
$PM_{2.5}$	Annual	10.13 $\mu g/m^3$	12 $\mu g/m^3$	NAAQS: Annual mean, averaged over 3 years. Monitored value: Annual mean for year 2012 (Rangely, Colorado).
	24-hour	24.9 $\mu g/m^3$	35 $\mu g/m^3$	NAAQS: 98th percentile, averaged over 3 years. Monitored value: 98th percentile for year 2012 (Rangely, Colorado).

*source: EPA Air Data

Figure 1 shows locations of the proposed lease parcels within the WRFO and also shows recent oil and gas well spuds/completions in the area. Looking at the Colorado spuds/completions data for WRFO for the last 5 years (2008 - 2012), the average development per year was 106 Federal and 29 non-Federal wells, and the maximum annual development was 167 Federal and 80 non-Federal wells in year 2008. As shown in the following map, most of the recent development (years 2008-2012) in the WRFO occurred in the Mesaverde Play Area (MPA) while other development occurred in the Rangely field area (west/northwest portion of the WRFO).

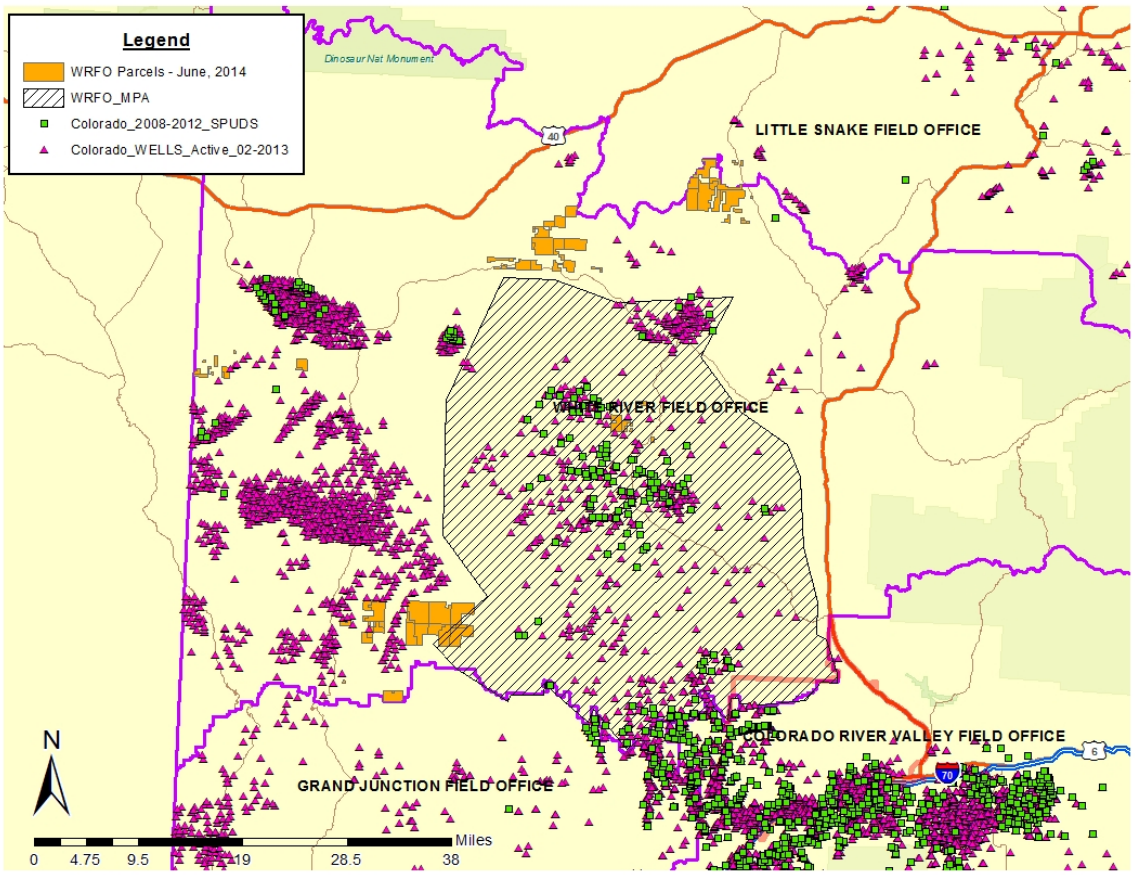

Figure 1: White River Field Office Well Spud and Completion Locations

Table 7 shows county-wide emissions summaries developed by the Colorado Department of Public Health and Environment (CDPHE) for year 2010 that account for many sectors including on-road vehicles, O&G, non-road equipment, railroads, fires, aircraft and tank trucks.

Table 7: County Emissions Inventory Data (CDPHE - 2010 - TPY)

County	PM	VOC	CO	NO_X	SO_2
Rio Blanco	5,139	35,827	13,515	4,290	149
Garfield	4,322	66,163	36,297	14,786	297
Moffat	5,103	31,981	15,620	16,881	3,923

Table 8 shows oil and gas emissions inventory for the BLM WRFO as provided in the CDPHE Air Pollution Emissions Notice (APEN) database as well as oil and gas calculators developed from industry input to account for non-APEN and construction related emissions. These estimates account for oil and gas operations including drilling/completion, heaters, flares, fugitives (tanks, equipment leaks, etc.), engines, dehydrators and amine units.

Table 8: Field Office O&G Year 2011 Emissions Inventory Data (TPY)

Field Office	PM_{10}	$PM_{2.5}$	VOC	CO	NO_X	SO_2	CO_2	CH_4	N_2O
WRFO	493	205	5,485	3,181	4,032	318	1,299,590	26,712	21

There is broad scientific consensus that humans are changing the chemical composition of Earth's 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), and several industrial gases in our atmosphere. An increase in GHG emissions is thought 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 have occurred within the last 50 years. 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.

Environmental Consequences of Leasing and Potential Development (Direct and Indirect Impacts): Leasing under Alternative 2 could lead to potential future development, which would result in low and short-term impacts to air quality during the potential future development and the release of volatile organic compounds (VOCs) during drilling and production. Increases in the following criteria pollutants would occur due to combustion of fossil fuels during road and pad construction and drilling activities: carbon monoxide, ozone (secondary pollutant formed photochemically from VOCs and nitrogen oxides (NOx)), nitrogen dioxide, and sulfur dioxide.

Additional low, short-term impacts to air quality would occur due to the release of VOCs including hazardous air pollutants (HAPs) commonly associated with oil and gas production (benzene, toluene, ethylbenzene, xylene, and n-hexane) which could be released from tanks, separation equipment, transportation of produced water and condensate by pipeline or trucks. The amount of these releases are difficult to estimate, but would be assumed to be within CDPHE air permit limits estimated in tons per year. Non-criteria pollutants (NAAQ standards have not been set for non-criteria pollutants), such as nitric oxide, air toxics (e.g. benzene), and total suspended particulates may experience slight, temporary increases as a result of oil and gas development.

Soil disturbance resulting from construction is expected to cause increases in fugitive dust and inhalable particulate matter, specifically particulate matter (PM) 10 microns (µm) or less in diameter (PM_{10}) and particles 2.5 µm or less in diameter ($PM_{2.5}$). Particulate matter is made up of a number of components, including acids (such as nitrates and sulfates), organic chemicals,

metals, and soil or dust particles. More than 70 percent of PM_{10} (coarse particles) is created from windblown dust and soil from roads, fields, and construction sites. A smaller percentage of coarse particles comes from automobile and diesel engine exhaust, soot from wood fires, and sulfates and nitrates from combustion sources such as industrial boilers (CAQCC 2011). Dust production is the most likely during the construction and drilling phases, especially when conditions are dry and/or windy. Particulate matter is the major contributor to reductions in visibility, due to their ability to scatter or absorb light. Particulate matter can also have human health impacts.

Fugitive dust emissions would likely cause low, short-term impacts to local air quality, specifically visibility. Once wells go into interim reclamation, topsoil removed during road and pad construction would be spread, stabilized, and reclaimed. As vegetation establishes in the reclaimed areas, dust production will occur only when vehicles travel on the access roads to service the wells. Even with these increased pollutants, Alternative 2 is unlikely to result in an exceedance of NAAQ and CAAQ standards and AQRV thresholds, and is likely to have minimum contributions to applicable PSD increment consumption.

Impacts will vary by alternative with the most difference between Alternative 1 and 2, and the least between 2 and 3. No air quality impacts from oil and gas development on the parcels under consideration are expected under Alternative 1. Deferral of lease parcels under Alternative 3 reduces the acreage available for oil and gas development. Development of deferred parcels may still occur in the future and some leased parcels may not be developed. In general, impacts described would be proportional to the acreage leased and assuming development in these leases. Actual development rates also depend on several other factors including oil and gas operator practices, feasibility and location within the oil and gas potential zone.

An air pollutant emissions inventory was prepared for development and operational stages of a typical natural gas well in the BLM WRFO. As oil and gas development data becomes available during future permitting stages, the BLM will use this information to develop project-specific emissions estimates for a refined impacts analysis. The emissions estimates in the following Table 9 could be multiplied by the number of new wells to develop emissions for a specific project.

Table 9: **BLM WRFO - One Typical O&G Well - Construction and Production Emissions Summary (TPY)**

Field Office	PM_{10}	$PM_{2.5}$	VOC	CO	NO_X	SO_2	CO_2	CH_4	N_2O	HAPs
WRFO	4.46	0.49	1.12	2.54	1.07	0.02	707.24	6.76	0.01	0.11

The emissions rates shown in Table 9 account for 80 percent dust control for unpaved surfaces, Tier 4 drill rig/completion engines, green completion practices, storage tanks and dehydrator vent/fugitive emissions controls and low-bleed pneumatic devices.

An air pollutant emissions inventory was also developed for 10 years of additional oil and gas development and operations in the BLM WRFO based on the Reasonable Foreseeable Development (RFD) for WRFO using oil and gas related emissions calculators that were

developed for northwest Colorado oil and gas. Oil and Gas RFD for WRFO (developed using industry input) shows that approximately 6,500 wells in the MPA and 300 wells outside MPA could be developed over a 10 year period. Using constant annual development rates, means that approximately 650 wells could be drilled per year inside the MPA and ~ 30 wells per year outside the MPA. Parcel IDs: 6760, 6761, 6768, 6772 and 6783 that are being considered for this lease sale are located in the MPA and the rest are located outside the MPA. Table 10 shows federal emissions for the WRFO for ten years (beyond year 2011) of additional oil and gas development corresponding with ~ 600 federal wells drilled per year (for a total of 6,000 new federal wells over the 10-year period). The emissions shown in Table 10, account for existing and new federal oil and gas development /operations in the WRFO. Note: the actual maximum annual development (i.e. spuds/completions per year) over the past 5 years (2008 – 2012) was approximately 167 federal and 80 non-federal wells/year for the entire WRFO.

Table 10: BLM WR**FO Federal – 10-year Projected O&G Emissions (TPY) Based on RFD**

Field Office	PM_{10}	$PM_{2.5}$	VOC	CO	NO_X	SO_2	CO_2	CH_4	N_2O
WRFO	1,530	646	18,556	8,897	12,141	934	4,128,642	87,610	66

The emissions estimates for a typical well (Table 9) do not appear to be at critical levels as compared to thresholds such as the CDPHE required minor source air quality modeling levels, however, the development of many wells according to the RFD rates over several years could lead to substantial increases in oil and gas related emissions for the BLM WRFO. Oil and gas development related emissions associated with potential development on the proposed lease parcels as well as other federal 10-year projected oil and gas development in the WRFO would be accounted for in the emissions estimates shown in Table 10.

For the previous May 2013 WRFO Lease Sale EA, an air quality related values (AQRVs) impacts analysis was conducted for potential oil and gas development on parcels near the Dinosaur National Monument Class I area. The emissions inventory developed for this modeling analysis was derived directly from the oil and gas emissions inventories developed for the Draft WRFO RMPA Air Quality Study. The parcels for the May, 2013 WRFO Lease Sale and this current WRFO Lease Sale are in the same general location relative to the sensitive air quality areas (i.e. Class I and sensitive Class II areas) in the region. Based on the locations of the Lease Parcels and the amount of land for both Sales, it is reasonable to assume that the potential level of oil and gas development (i.e. emissions) for both WRFO Lease Sales would be similar and the air pollutants / air quality related values of concern would be the same. For these reasons, the WRFO May 2013 Lease Sale CALPUFF modeling analysis could also be used to estimate potential incremental project-specific impacts for future projected oil and gas development on the current Lease Sale parcels.

The Draft WRFO RMPA Air Resources Technical Support Document (ARTSD) (BLM 2012) provides much more detail for the emissions calculations for each of the oil and gas related activities for the May, 2013 WRFO lease sale CALPUFF analysis. That analysis followed Federal Land Managers' Air Quality Related Values Workgroup (FLAG 2010) Guidance for estimating visibility impacts associated with a specific project. As shown in the ARTSD, there

are no days with visibility impacts over the FLAG 0.5 deci-view (dv) change threshold (FLAG threshold for which a source is considered to contribute to regional haze visibility impairment) predicted to occur at Dinosaur National Monument. Also, the ARTSD leasing-level analysis shows that predicted incremental nitrogen deposition associated with potential oil and gas development on the May, 2013 WRFO leases is below the FLAG screening –level values for the additional modeled amount of nitrogen deposition within Federal Land Managed areas from new or modified sources.

The BLM Colorado currently has several near-field impacts modeling studies for WRFO oil and gas and a near-field air quality impacts screening tool that will be used at the project-level (APD) stage to conduct near-field analyses for detailed project-specific operator data / information. Based on its review of the analyses / tools and emissions associated with site-specific proposals for exploration and development activities, BLM will determine the appropriate level of analysis to assess near-field air quality impacts.

Additional project-level assessments that could be conducted at the permitting stage (APD) include General Conformity analyses. General conformity regulations require that federal actions do not cause additional or worsen existing violations of the NAAQ standards within nonattainment or maintenance areas; and that attainment of these standards is not delayed by federal actions in non-attainment areas.

Environmental Consequences of Leasing and Potential Development (Cumulative Impacts): The cumulative impacts area for Alternative 2 is the three-county area (Rio Blanco, Moffat and Garfield Counties). Principal air pollution sources in the three-county area include emissions from motor vehicles, oil and gas development, coal-fired power plants, coal mines, sand and gravel operations, windblown dust, and wildfires and prescribed burns (CAQCC 2011). Facility emissions in the three-county area are dominated by emissions related to oil and gas exploration, development, processing, and transportation. Due to emission sources in the Piceance, White River and in the nearby Uinta and Yampa River Basins, VOCs, nitrogen oxides, and dust (particulate matter) are likely to increase into the future. With the exception of ozone, overall air quality conditions in Rio Blanco, Moffat and Garfield Counties are likely to continue to be in attainment of NAAQ standards due to effective atmospheric dispersion.

As future oil and gas development occurs, the BLM Colorado plans to add project-specific permitted levels of emissions (at the APD stage) to total regional emissions estimates to compare the WRFO oil and gas and other regional emissions rates modeled in cumulative air quality modeling studies along with the corresponding modeling results to confirm that activities approved by the BLM Colorado are within the modeled emissions analyzed in the cumulative analyses. The BLM Colorado has several cumulative impacts analysis tools focused on projected WRFO oil and gas development including a cumulative air quality impacts analysis that was conducted for each alternative in the WRFO RMPA EIS (BLM 2012). Air pollutants and AQRV impacts were predicted for 20-year projected WRFO oil and gas RFD as well as most other emissions sources in the region. In addition, the BLM – Colorado is currently conducting a Colorado-wide modeling study (CARMMS) of impacts associated with oil and gas development that will include air quality impact analyses for each BLM Field Office including the WRFO. For the CARMMS, BLM is modeling oil and gas emissions increases projected out 10 years from year 2011 according to RFD and recent oil and gas development data, and will identify the

predicted potential impacts for each Field Office for year 2021. The future year 2021 projected federal emissions rates shown in Table 10 are being modeled for the two oil and gas development areas (MPA and outside MPA) in the WRFO. Regional ozone and other pollutants and air quality related values (AQRVs) including visibility impacts and deposition are being evaluated in the CARMMS.

Substantial emission-generating activities cannot occur without further BLM analysis and approval of proposals for exploration and development operations. BLM may make its approval of these activities subject to conditions of approval (COA) addressing air pollutant emissions, as appropriate.

Protective/Mitigation Measures: Based on its review of the emissions and analyses associated with site-specific proposals for exploration and development activities, BLM will determine the appropriate level of analysis of air quality impacts, and may impose specific mitigation measures as COA for the project.

Oil and gas resources 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. Project specific GHG emissions can generally be quantified and compared to overall sector, regional, or global estimates to provide some measures/context of the level and significance of any potential impacts. The BLM will continue to evaluate climatic variability and change in the future, and apply appropriate management techniques and policy to address changing conditions as developments occur.

3.4.1.2 Floodplains

Affected Environment: The 100-year floodplain has been estimated by Geographic Information System (GIS) mapping for perennial streams in the WRFO. Floodplains are important for attenuating flood flows, stabilizing sediment and flood debris, groundwater recharge, nutrient buffering as well as providing valuable habitat for aquatic and terrestrial plants and animals. Floodplains in intermittent stream systems also play a vital role in capturing and storing sediment, attenuating flood flows and providing habitat for wildlife.

Executive Order 11988 requires Federal agencies to avoid to the extent possible, both the long and short term adverse impacts associated with the occupancy and modification of floodplains, and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. Executive Order 11990 requires Federal agencies to take action to minimize the destruction, loss or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands. The BLM implements these executive orders by first avoiding locating infrastructure in floodplains or wetlands when possible during site-specific planning. When areas cannot be avoided the BLM may require Best Management Practices (BMP) through Conditions of Approval (COA) to minimize impacts, allow for mitigation of impacts, and restore the natural conditions after occupancy.

Environmental Consequences of Leasing and Development - Direct and Indirect Impacts: Assuming oil and gas development of lease parcels that have portions within floodplains would

include limited infrastructure such as pipelines or portions of roads and pads, impacts would include the loss of vegetation and potential changes to the hydrology of stream systems. Any development that occurs within floodplains is likely to reduce the effectiveness of floodplains to attenuate flood flows by removing vegetation that reduces streamflow velocities, increasing compaction of soils, reducing infiltration and reducing the cross sectional area of the floodplain available to covey flood flows. Indirect impacts would be increased peak flows during flood events and increased sedimentation downstream.

Impacts will vary by alternative with the most difference between Alternative 1 and the two leasing action alternatives (alternatives 2 and 3). Since lease parcels (6753, 6754, 6758, and) with floodplains would be deferred under Alternative 3, impacts would be reduced under Alternative 3 as compared to Alternative 2. No floodplain impacts from oil and gas development are expected under Alternative 1. Deferral of portions of lease parcels 6753, 6754, 6758, and 6790 located along the White River would delay the development of oil and gas infrastructure in these lease parcels. Impacts may be delayed until future leasing. When or if these portions of the lease parcels are leased, it does not mean infrastructure would be located in these parcels, since site specific planning allows for moves up to 200 meters and the implementation of the executive orders would require avoidance of these areas. Floodplains are also important habitat for wildlife and wetland plants and leasing decisions may be driven by these wildlife values (see the Special Status Wildlife and Plant sections).

Environmental Consequences of Leasing and Development - Cumulative Impacts: The cumulative impact analysis area for floodplains is the White River watershed from the Utah border to the headwaters. Development along perennial waterways includes the towns of Meeker and Rangely and would include businesses and residences in portions of the floodplains. Outside of Meeker and Rangely development can include rural residences, hay meadows, and limited infrastructure such as oil and gas processing equipment, drill heads, roads and utilities. The leasing of parcels as described in Alternative 2 is not likely to cause a measureable increase in the development that has already occurred in floodplains especially with the deferrals recommended and avoidance and planning that would occur before development of the leases proceeds.

3.4.1.3 Hydrology/Ground

Affected Environment: The proposed lease parcels are throughout the WRFO and in areas with diverse geology. Potential impacts on groundwater hydrology would be closely associated with properties of the geology where these lease parcels occur.

Parcels in the southwestern portion of the field office near Douglas Pass (6765, 6766, 6768-6773, 6776, 6777, 6779, 6812, and 6833) are near the edge of the Piceance Structural Basin or are within the Piceance Structural Basin (6760, 6761, 6783, and 6815). Structural basins are areas with unique geology that have similar aquifers based on sediment deposition within the basin. The Piceance Structural Basin is bounded on the northeast by the Axial Uplift and on the east by the White River Uplift, where more than 20,000 feet of sedimentary rocks are present. Groundwater in the Piceance Structural Basin is generally associated with contact springs associated with the Mahogany oil shale formation one of the sedimentary rocks within the

Piceance Basin and are generally referred to as the lower aquifer with the most prominent layer in the B groove below the Mahogany and the upper aquifer where the A groove is prominent.

Contact springs occur when a rock layer that can easily transports groundwater outcrops on the side of the hill or contacts the surface. The rock layers that have contact springs typically have a layer below them that does not allow the easy movement of groundwater (aquatard), which forces the groundwater to move horizontally. In this case the Mahogany layer is an aquitard and the A groove easily transports groundwater. Similar layers underlay portions of the B groove and there are many layers in the B groove that are good at transporting water. Typically aquatards in the B groove are the same rock zones higher grades of oil shale. These contact springs typically form in elevation bands where erosion has cut into these formations. Upper elevations of watershed headwaters in this area typically have an elevation band where contact springs occur that are associated with outcrops of these formations. Springs in this area can also originate from aquifers depending on the fractures and faults in the area.

Environmental Consequences of Leasing and Development - Direct and Indirect Impacts: Well drilling, hydraulic fracturing, and completion activities associated with oil and gas development after leasing have the potential to impact groundwater hydrology by increasing porosity around well bores and changing pressures of producing zones. Hydraulic fracturing and completion activities are designed to improve porosity and permeability in the production zone and therefore have the potential to change the physical properties of groundwater formations. Changing the physical properties of producing formation could create pathways to faults and fractures connected to freshwater aquifers. Producing formations can decrease the hydraulic pressure and in the case of injection wells may increase the hydraulic pressure in injection formations. Changes in pressure in groundwater formations can change groundwater hydrology since groundwater typically moves up or down in elevation depending on hydraulic pressure.

Casing requirements, drilling practices, Colorado Oil and Gas Conservation Commission COGCC regulation of drilling and Class II injection wells are designed to protect groundwater resources. The BLM reviews drilling plans and disposal methods for produced water and left-over fluids during the approval process for an application for permit to drill (APD). Best Management Practices (BMPs) can be applied during this process as Conditions of Approval (COAs) to protect freshwater aquifers, as necessary. Applied COAs typically involve casing or cementing requirements that are designed to isolate oil and gas production from freshwater aquifers. 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).

Impacts would vary by alternative with the most difference between Alternative 1 and 2, and the least between 2 and 3. Under alternative 3, the potential impacts to groundwater would be delayed in deferred parcels (31,123 acres) until future leasing. No groundwater hydrology impacts from oil and gas development is expected under Alternative 1. Deferral of portions of lease parcels would delay the development of oil and gas infrastructure in these particular lease parcels, but is unlikely to reduce overall drilling, unless additional No Surface Occupancy (NSO) stipulations would be added during future leasing. Even with additional NSO stipulations, overall production or rates of oil and gas development are not likely to be impacted and groundwater impacts may simply be delayed or shifted to different areas.

Environmental Consequences of Leasing and Development - Cumulative Impacts: The Cumulative effects analysis area is the White River Basin. Potential impacts to groundwater hydrology include oil and gas development and mining activities. Uranium mining has occurred historically in the headwaters of the White River near Yellow Jacket pass. There is an active underground coal mine east of Rangely (Desarado Mine). Nacholite in-situ mining is active in the Piceance Basin, and there is historical as well as current research and development of oil shale resources. All of these mining activities directly impact local groundwater hydrology by dewatering activities and in-situ mining techniques. Both mining and oil and gas development have the potential to indirectly impact groundwater hydrology changing pressures or dewatering producing formations, by injecting additional fluids, or by creating preferential pathways for groundwater. Oil and gas development often occurs in the same area or nearby some of these mining activities. Parcel 6915 is near oil shale and nacholite resources and is most likely to be impacted by these ongoing activities including in-situ mining of these resources.

3.4.1.4 Hydrology/Surface

Affected Environment: Parcels along the lower portion of the WRFO (6778, 6790, and 6813) are in ephemeral draws and bottomlands adjacent to the White River. The central parcels are in the Wolf Creek and Crooked Wash drainages (listed as sensitive watersheds in the 1997 White River RMP) and ephemeral tributaries to the White River (6753-6759 and 6764).

The parcels, in the northeastern portion of the WRFO, (6814, 6816, 6817, 6836 and 6837) and near Douglas Creek, (6765, 6766, 6768-6773, 6776, 6777, 6779, 6812, and 6833) are in steep country that has soils with landslide potential. These areas all have the potential for proportionally more direct impacts to surface hydrology due to poor soils, steep slopes or soils with landslide potential.

Environmental Consequences of Leasing and Development - Direct and Indirect Impacts: Impacts from oil and gas development that would likely occur after leasing on surface hydrology are mostly associated with surface disturbance to build access roads and pads. Both roads and pads can intercept shallow groundwater, increase compaction of soils and concentrate surface runoff. These direct impacts are typically addressed through the stormwater management plan the operator is required to develop, and may be modified by the BLM during approval. Impacts to surface hydrology are still likely in some areas where BMPs fail or where intense localized thunderstorms overwhelm drainage features. Drainage features for roads and pads are typically designed for the 10-year and 25-year storm events, but more extreme storms are possible and surface disturbance from oil and gas development is likely to increase the peak flow of these events and create erosion and sedimentation due to increased runoff and changes in surface hydrology. These impacts are more likely for surface disturbance in areas with poor soils, unstable soils and steep slopes.

Impacts will vary by alternative with the most difference between Alternative 1 and the leasing action alternatives (alternatives 2 and 3). Since lease parcels (6753, 6754, 6758, and 6790) with floodplains would be deferred under Alternative 3, impacts would be reduced under Alternative 3 as compared to Alternative 2 for surface hydrology. No surface hydrology impacts from oil and gas development is expected under Alternative 1. Deferral of portions of lease parcels under Alternative 3 would delay the development of oil and gas infrastructure in these particular lease

parcels, but is unlikely to reduce overall drilling, unless additional NSO stipulations would be added during future leasing. Even with additional NSO stipulations, overall production or rates of oil and gas development are not likely to be impacted and surface water hydrology impacts may be delayed until future leasing or shifted to different areas.

Environmental Consequences of Leasing and Development - Cumulative Impacts: The cumulative impacts analysis area is the White River Basin. Overall surface disturbance in this basin is small but includes roads used for recreation, access to private lands, highways and to access mineral resources. Most of the concentrated building occurs near Meeker and Rangely and there are many historical current development areas such as the Weber Sand Unit near Rangely or the Wilson Creek Field near the proposed lease parcels in the northeastern portion of the field office. Leasing will likely lead to the exploration of mineral resources in the lease parcels. Exploratory wells are likely to have long access roads and will be about one well per section. If the oil and gas resources warrant field development, more concentrated well pads and roads can be expected, but well densities and level of development will depend on the economics, the oil and gas resource and drilling technology used. For example, horizontal drilling is likely to require less of a surface disturbance foot-print than the same concentration of development using vertical well bores, but would cost more per well bore.

3.4.1.5 Minerals and Geology

Affected Environment: The parcels are located in the Uinta-Piceance Province with the surficial geology of the parcels ranging in age from the Cretaceous Mancos Formation to the Tertiary Uinta Formation. Site specific geology would be identified during the APD process. All of the nominated parcels are within the high oil and gas development potential area identified in the White River ROD/RMP. Previous leasing of the entire area encumbered by the nominated lands is indicative of the past and current interest in oil and gas development of these parcels. The interest in potential development is further emphasized by the fact that over 90 percent of the currently nominated areas have been nominated or under lease for oil and gas between 1997 and 2013. Approximately 64 percent of the offered lease sale acreage has previously been nominated for lease sales since 2004 and were not offered or issued for various reasons. Colorado Oil and Gas Conservation Commission (COGCC) oil and gas well database indicates past well interest or activity occurring on 13 of the nominated parcels (6753, 6756, 6760, 6761, 6764, 6765, 6769, 6771, 6773, 6776, 6777, 6778, and 6779) with an additional 5 parcels (6755, 6766, 6779, 6815, and 6833) within one quarter mile of oil and gas well activity. All or a majority of six parcels (6760, 6761, 6768, 6772, 6783, and 6815) are within the area identified as the Mesaverde Play Area (MPA) in WRFO's 2007 Reasonable Foreseeable Development (BLM 2007). Parcels 6760, 6761, and 6783 are near the center of the MPA and are located within or adjacent to existing exploratory oil and gas units. 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. Approximately 84 percent of the MPA (598,700 acres) is federal oil and mineral estate of which 84 percent (493,400 acres) is currently leased. It is anticipated that 95 percent of WRFO's future oil and gas activity would occur in the MPA (BLM 2007).

Nine of the nominated parcels intersect the proposed Dinosaur Trail MLP (see Table 2 for parcel ID)

None of the parcels are within areas identified in the White River ROD/RMP as suitable for coal or oil shale leasing, nor are any located on existing coal leases or encumbered by mining claims.

The southern 80 acres of parcel 6783 is encumbered by federal sodium lease COC118328-01. Parcels 6760, 6761, and portions of 6783 are located within the area identified in the White River RMP/ROD as the multimineral zone, and the northeastern two thirds of parcel 6815 is within the area available for sodium leasing.

Environmental Consequences of Leasing and Development - Direct and Indirect Impacts:
Under Alternative 2
Allowing the sale of all nominated parcels (48,554.5 acres) outside of the GRSG priority habitat would allow for the efficient development and recovery of oil and natural gas resources in the underlying oil and gas bearing formations. Leasing of small odd shaped parcels or parcels that contain small odd tracts (6753, 6754, 6758, 6760, 6777, 6783, and 6790) that are surrounded by or adjacent to fee minerals, or encompassed by existing federal leases, would help prevent the potential of drainage issues from areas not under lease. The portion of parcel 6783 encumbered by COC118328-01 is 80 acres of disassociated area of COC118328-01 making it unlikely the leasing and development of parcel 6783 would affect development of the sodium lease. It is improbable that conflicts would occur between the development of parcels 6760, 6761, and 6815 and future sodium leasing in areas available for sodium leasing and due to the limited amount of current sodium mining activity and the areal extent of existing sodium leases (greater than 16,000 acres) within the WRFO. 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)).

Under Alternative 3
Allowing 17,431.45 acres available for lease sale and deferring acres of the nominated parcels outside the GRSG priority habitat would not allow for an as efficient development and recovery of oil and natural gas resources in the underlying oil and gas bearing formations as in Alternative 2 and could indirectly lead to the loss of the future recovery of oil and gas resources due to reservoir drainage characteristics. This is particularly the case with small and odd shaped tracts adjacent to, or surrounded by, fee minerals or tracts deferred without the consideration for the implementation of 43 CFR 3101.1-2 that allows for relocation of proposed operations by 200 meters (660 feet) to minimize adverse impacts to other resources (see Maps 2, 3, and 4). Implementation of this regulation could prevent the potential of loss of oil and gas resources by including an addition of approximately 460 acres to the lease sale while continuing to allow for the protection of the identified resource concern of the deferred tract. Table 11 lists the tracts within identified parcels of such deferred acreages and should be considered for availability to leasing.

Conversely large blocks of deferred areas adjoining non-leased lands could continue to allow for efficient development of these lands when leased in the future. The following large blocks of deferred nominated parcels (approximately 21,100 acres) would fall under this category.

- All or portions of parcels 6753, 6754, 6755, 6757, 6758, and 6759 (approximately 10,400 acres see Map 3),

- Portions of Parcels 6817, 6836, and 6837 (approximately 4,000 acres see Map 2)
- Portions of Parcels 6768 and 6772 (approximately 2,900 acres see Map 5)
- Parcels 6779, 6833 and portions of 6765 and 6766 (approximately 5,800 acres see Map 5)

Table 11: Tracts that could be available within parcels applying 43 CFR 3101.1

Parcel ID Township, Range Section	Deferred Tract Description	Tract Area (acres)	Reason for Deferral	Deferral Area in Tract (approx. acres)[1]	Additional Comments
6765 T5S, R101W Sec 7	NESE	40	lands with wilderness characteristics	3.5	lands with wilderness characteristics less than 400 feet in width
Sec 7	SESE	40	lands with wilderness characteristics	9.5	lands with wilderness characteristics less than 400 feet in width
Sec 18	NENE	40	lands with wilderness characteristics	13	
6769 T4S R100W Sec 7	NWNW	40	lands with wilderness characteristics	1	
6776 T4S R101W Sec 3	NENW	40	lands with wilderness characteristics	1	
Sec 4	SENE	40	lands with wilderness characteristics	2.5	
Sec 4	NWSW	40	lands with wilderness characteristics	< 1	
Sec 9	SESW	40	lands with wilderness characteristics	1.5	
6778 T1N R103W Sec 30	NENW	40	lands with wilderness characteristics	2	
Sec 30	SENW	40	lands with wilderness characteristics	6	lands with wilderness characteristics less than 400 feet in width
6790 T1N R104W (see Map #3) Sec 23	NWNWSE	20	Dinosaur Trail MLP	20	Isolated parcel 2,400 feet from nearest federal Minerals

Parcel ID Township, Range Section	Deferred Tract Description	Tract Area (acres)	Reason for Deferral	Deferral Area in Tract (approx. acres)[1]	Additional Comments
6813 T1N,R102W Sec 20	SESW	40	Lands with wilderness characteristics	4	lands with wilderness characteristics less than 400 feet in width
TOTAL	Deferred Tracts	460	Deferral Areas in Tracts	64	

[1]Lease parcels are configured based on aliquot parts and so deferrals must be configured by lot or quarter-quarter. The deferral area in tract represents the acreage within the tract that actually contains the resource for which the deferral was considered (e.g., how many acres of a lands with wilderness characteristics unit that is mapped within the deferred tract).

Environmental Consequences of Leasing and Development - Cumulative Impacts*:* Approximately 64 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, termination of nonproducing leases and continued deferring of nominated parcels since 2007. In Alternative 2 the sale of the proposed parcels would increase the current leased area to approximately 67 percent and in Alternative 3 the percentage of leased area would increase to less than 65 percent. Direct and indirect cumulative effects of reasonably foreseeable oil and gas development are analyzed in the 1996 White River Resource Area Proposed RMP and Final EIS, which addresses reasonably foreseeable oil and gas development, including roads and pipelines, over a 20 year period. As mention in the Affected Environment, over 90 percent of the area of the nominated parcels brought forward in Alternative 2 was previously leased or nominated from 1997 to 2013. Comparatively, all of the available area in Alternative 3 has been under lease or nominated between 1997 and 2013. 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 Proposed RMP and Final EIS.

3.4.1.6 Soils

Affected Environment: The parcels contain 17,310 acres of soils that are identified as fragile soils, about 2,785 acres of saline soils, and 970 acres soils that have landslide potential.

Environmental Consequences of Leasing and Development - Direct and Indirect Impacts: Approximately 41,295 acres or 85 percent of the soil types have severe or very severe erosion ratings and 22,937 acres or 46 percent of the soils have a severe rutting rating (NRCS, 2008). Construction of wells and pad in these soils would lead to more impacts that may include erosion, loss of productivity and instability of soils. Reclamation is likely to be more difficult in saline soils as well as soils with erosion and rutting potential. Operators would implement BMPs in their stormwater management plans required by CDPHE to contain sediment on construction sites. BMPs are designed to reduce the potential for environmental impacts, however, during extreme storm events or if BMPs fail, erosion may reduce soil productivity and result in

sedimentation downstream from pipelines, roads or pads. This indirect impact, although unlikely under normal conditions could occur along with the direct impacts of loss of productivity, mixing of soil horizons, and/or loss of topsoil from surface disturbance.

Impacts would vary by alternative with the most difference between Alternatives1 and 2, and least between Alternatives 2 and 3. No soils impacts from oil and gas development are expected under Alternative 1. Deferral of portions of lease parcels under Alternative 3 would delay the development of oil and gas infrastructure in these particular lease parcels, but is unlikely to reduce overall drilling, unless additional NSO stipulations would be added during future leasing. Even with additional NSO stipulations, overall production or rates of oil and gas development are not likely to be impacted and surface water hydrology impacts may be delayed until future leasing or shifted to different areas.

Environmental Consequences of Leasing and Development - Cumulative Impacts*:*
The cumulative impacts analysis area is the White River Basin. Overall surface disturbance in this basin is small but includes roads used for recreation, access to private lands, highways and to access mineral resources. Impacts to soils on Federal lands from other activities such as mining, grazing, and recreation would lead to loss of soil productivity, erosion and other impacts similar to oil and gas development. Leasing these parcels would likely lead to the exploration of mineral resources. Exploratory wells are likely to have long access roads and would be about one well per section. If the oil and gas resources warrant a field development more concentrated well pads and roads can be expected, but well densities and level of development would depend on the economics, oil and gas resource, as well as the drilling technology used. For example, horizontal drilling is likely to require less of a surface disturbance foot-print than the same concentration of development using vertical well bores, but would cost more per well bore.

3.4.1.7 Ground Water Quality

Affected Environment: The proposed lease parcels are located throughout the WRFO and in areas with diverse geology. Potential impacts on groundwater quality will be closely associated with properties of the geologic formations where these lease parcels are located.

Parcels in the southwestern portion of the field office near Douglas Pass (6765, 6766, 6768-6773, 6776, 6777, 6779, 6812, and 6833) are near the edge of the Piceance Structural Basin or are within the Piceance Structural Basin (6760, 6761, 6783, and 6815). Structural basins are areas with unique geology that have similar aquifers based on sediment deposition within the basin. The Piceance Structural Basin is bounded on the northeast by the Axial Uplift and on the east by the White River Uplift, where more than 20,000 feet of sedimentary rocks are present. Groundwater in the Piceance Structural Basin is generally associated with contact springs associated with the Mahogany oil shale formation and are generally referred to as the lower aquifer with the most prominent layer in the B groove below the Mahogany and the upper aquifer where the A groove is prominent. Upper elevations of watershed headwaters in this area typically have an elevation band where contact springs occur that are associated with outcrops of these formations. Springs in this area can also originate from aquifers depending on the fractures and faults in the area, these springs are typically more saline and have prominent elements such as sulfur and sodium bicarbonate.

Parcels along the White River include a group of parcels on the western side of WRFO (6778, 6790, and 6813) are in outcrops of the Mesaverde and Mancos Shale. Mancos shale is a marine shale that was formed during the Cretaceous age and is associated with high amounts of selenium and high salinity (Lebron et al 2005). Similar geology occurs with the lease parcels along the White River in the central portion of the WRFO (6753-6759 and 6764) and the northeastern portion of the WRFO (6814, 6816, 6817, 6836 and 6837). Groundwater in these formations is associated with contact springs associated with more permeable layers within these formations. Groundwater from springs is likely to be saline due to marine shale.

Environmental Consequences of Leasing and Development - Direct and Indirect Impacts: Well drilling, hydraulic fracturing, and completion activities associated with oil and gas development after leasing have the potential to impact groundwater. Unintentional loss of fluids as well as injection of leftover drilling, hydraulic fracturing and completion fluids, injection of produced water into Class II wells, along with potential spills all have the potential to contaminate aquifers. Losses of fluids from wells and contaminants that are spilled or leaked are potential direct impacts. Changing the physical properties of producing formation could create pathways to faults and fractures connected to freshwater aquifers and impact groundwater quality. 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).

Impacts would vary by alternative with the most difference between Alternatives 1 and 2, and least between Alternatives 2 and 3. No groundwater quality impacts from oil and gas development are expected under Alternative 1. Deferral of portions of lease parcels under Alternative 3 would delay the development of oil and gas infrastructure in these particular lease parcels, but is unlikely to reduce overall drilling, unless additional NSO stipulations would be added during future leasing. Even with additional NSO stipulations, overall production or rates of oil and gas development are not likely to be impacted and surface water hydrology impacts may be delayed until future leasing or shifted to different areas.

Environmental Consequences of Leasing and Development - Cumulative Impacts: The Cumulative effects analysis area is the White River Basin. Potential impacts to groundwater hydrology include oil and gas development and mining activities. Uranium mining has occurred historically in the headwaters of White River near Yellow Jacket pass, there is an active underground coal mine east of Rangely (Desarado Mine), nacholite in-situ mining is active in the Piceance Basin and there is historical as well as current research and development of oil shale resources. All of these mining activities directly impact local groundwater by dewatering activities and in-situ mining techniques. Both mining and oil and gas development have the potential to indirectly impact groundwater hydrology changing pressures or dewatering producing formations, by injecting additional fluids, or by creating preferential pathways for groundwater. Oil and gas development often occurs in the same area or nearby some of these mining activities. Parcel 6915 is near oil shale and nacholite resources and is most likely impact by these ongoing activities including in-situ mining of these resources.

3.4.1.8 Surface Water Quality

Affected Environment: Table 12 describes the primary water segments that may be impacted by leasing these parcels.

Table 12: Water Quality Classification Table (WQCC 2012b)

Segment	Segment Name	Use Protected	Protected Beneficial Uses			
			Aquatic Life	Recreation	Agriculture	Water Supply
21	Mainstem of the White River from Douglas Creek to the Utah border	No	Warm 2	Existing Contact Recreation	Yes	Yes
22	All tributaries to the White River from Douglas Creek to the Utah border	No	Warm 2	Primary Contact Recreation	Yes	No
12	Mainstem of the White River from Piceance Creek to Douglas Creek	No	Warm 1	Existing Contact Recreation	Yes	Yes
9b	Tributaries to the White River from Flag Creek to Piceance Creek	No	Cold 2	Not Primary Contact Recreation	Yes	Yes
13a	Tributaries to the White River from Piceance Creek to Douglas Creek	Yes	Warm 2	Not Primary Contact Recreation	Yes	No
23	Mainstem of East Douglas Creek and West Douglas Creek including tributaries.	No	Cold 1	Existing Contact Recreation	Yes	Yes

Segments 21, 22 and 13a describe tributaries to the White River and the mainstem from Douglas Creek to the Utah border and are protected for warm water aquatic life (Warm 2). The warm designation means the classification standards would be protective of aquatic life normally found in waters where the summer weekly average temperatures frequently exceeds 20 °C. The Warm 2 designation means that it has been determined that these waters are not capable of sustaining a wide variety of warm water biota. In the case of Segment 22 that describes the White River from Piceance Creek to the White River. These segments also have standards that are protective of recreation and agriculture, but not water supply.

Segment 9b and 23 describes tributaries to the White River and are protected for cold water aquatic life. The cold designation means the classification standards would be protective of aquatic life normally found in waters where the summer weekly average temperatures do not frequently exceeds 20 °C. The Cold 2 designation for segment 9b means that it has been determined that these waters are not capable of sustaining a wide variety of cold water biota, whereas the Cold 1 designation for East and West Douglas Creek means that it has been determined that these waters can support a wide variety of cold water biota. These segments also have protections for agriculture and water supply.

Environmental Consequences of Leasing and Development - Direct and Indirect Impacts: Clearing, grading, and soil stockpiling activities associated with the potential development of these lease parcels for oil and gas would alter overland flow and natural infiltration patterns. Potential direct impacts include surface soil compaction caused by construction equipment and vehicles, removal of vegetation and disturbance of surface soils, which would increase rain-splash erosion and reduce the soil's ability to absorb water and increase the volume and rate of

surface runoff, which in turn would increase surface erosion. Surface runoff associated with storm events may increase sediment loads in surface waters down gradient of disturbed areas. Sediment can be deposited and stored in minor drainages where it would be moved during heavy convective storms. BMPs are mitigation measures designed to provide for safe and efficient operations while minimizing undesirable impacts to the environment.

Impacts to water resources could occur due to unintentional surface spills of chemical additives and produced fluids. Types of chemical additives used in drilling activities may include acids, hydrocarbons, thickening agents, lubricants, and other additives. Produced fluids include water and hydrocarbons. Any spills would be contained and cleaned up according to BLM and COGCC requirements upon detection. Both BMPs and COAs, including interim reclamation storm water management, secondary containment systems and erosion control measures are identified during the APD process to reduce the likelihood of undesirable impacts.

Impacts would vary by alternative with the most difference between Alternative 1 and 2, and least between 2 and 3. No surface water quality impacts from oil and gas development are expected under Alternative 1. Deferral of portions of lease parcels under Alternative 3 would delay the development of oil and gas infrastructure in these particular lease parcels, but is unlikely to reduce overall drilling, unless additional NSO stipulations would be added during future leasing. Even with additional NSO stipulations, overall production or rates of oil and gas development are not likely to be impacted and surface water hydrology impacts may be delayed until future leasing or shifted to different areas.

Environmental Consequences of Leasing and Development - Cumulative Impacts: The cumulative impacts analysis area is the White River Basin. Overall surface disturbance in this basin is small but includes roads used for recreation, access to private lands, highways and to access mineral resources. Overall surface disturbance in this basin is small but includes roads used for recreation, access to private lands, highways and to access mineral resources. Impacts to soils on Federal lands from other activities such as mining, grazing, and recreation would lead to loss of soil productivity, erosion and other impacts similar to oil and gas development. Leasing would likely lead to the exploration of mineral resources in the lease parcels. Exploratory wells are likely to have long access roads and would be about one well per section. If the oil and gas resources warrant field development more concentrated well pads and roads can be expected, but well densities and level of development would depend on the economics, oil and gas resource as well as the drilling technology used. For example, horizontal drilling is likely to require less of a surface disturbance foot-print than the same concentration of development using vertical well bores, but would cost more per well bore.

3.4.2 Biological Resources

3.4.2.1 Forestry

Affected Environment: The WRFO has several different types of forest woodlands within its boundaries. The primary forest type where lease parcels are located is within both productive and dry exposure stand classes of pinyon/juniper woodlands as defined by a survey performed in 2003-2005 by WRFO personnel. Productive exposure types occur on primarily lower gradient slopes and on north and east aspects. Growth rates are higher in these areas due to soil features

which allow for effective use of precipitation. Dry exposure types occur when slopes and soil features do not allow for the retention of precipitation. The growth rates within these areas are low and most generally the trees present are mature. These habitat types are further broken down based on the age class of the stand. In this case the affected stands are both mature and young. Mature pinyon/juniper trees on productive exposure establish themselves as the dominant plant community on the site. Young pinyon/juniper trees are a component of the plant community or encroach into sagebrush and mountain shrub communities in the absence of reproduction through time and will eventually establish as the dominant plant community. Mature stands are valuable locally as a source of fire wood. Encroachment sites of young pinyon trees are valuable for Christmas tree harvest and posts for fence construction.

Lease parcels are also located within aspen woodland stand classes. Aspens are native to cold regions with cool summers and are characteristically medium-sized deciduous trees reaching heights of 50-100 feet tall. Aspens typically grow in large clonal colonies and are fast growing. Aspens are well known for their ability to regenerate from sprouts easily after fire or tree harvest. Mature trees within the WRFO are valuable locally as a source of fire wood and craft wood.

The last forest type where lease parcels are located is Douglas fir. Douglas fir is an evergreen conifer that reaches heights of 114-147 feet and 3 feet in diameter. This forest type normally is not associated with oil and gas due to its location and limitability in the field office. Most stands of Douglas fir are located around Douglas/Cathedral and Danforth/Jensen geographic resource areas on steep slopes.

Environmental Consequences of Leasing and Development - Direct and Indirect Impacts: The lease sale itself would have no direct or indirect impacts to forestry. However, activities that may ensue once parcels have been leased have the possibility to negatively impact forest and woodlands. Direct impacts to forestry woodlands would be addressed in individual NEPA documents as APDs are processed. Determining exact cords of wood removed as a result of pad, pipeline, road construction is unknown until APDs are processed.

Environmental Consequences of Leasing and Development - Cumulative Impacts: The lease sale itself would have no direct cumulative impacts to forestry. However, activities that may ensue once parcels have been leased have the possibility to negatively impact forest and woodlands. Cumulative impacts to forestry woodlands would be addressed in individual NEPA documents as APDs are processed.

3.4.2.2 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 species have, or will have, a state noxious weed management plan developed to stop their spread; and List C species are species that entities who have been authorized to cause disturbance will develop and implement 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.

Currently there are no known infestations of List A species within the WRFO. List B species that currently occur in or near the proposed lease sale parcels are black henbane (*Hyoscyamus niger*), hoary cress (*Cardaria draba*), leafy spurge (*Euphorbia esula*), musk thistle (*Carduus nutans*), perennial pepperweed (*Lepidium latifolium*), Russian olive (*Elaeagnus angustifolia*), salt cedar (*Tamarix ramosissima*), Canada thistle (*Cirsium arvense*), bull thistle (*Cirsium vulgare*), diffuse knapweed (*Centaurea diffusa*), scotch thistle (*Onopordum spp*), spotted knapweed (*Centaurea maculosa*), and Russian knapweed (*Acroptilon repens*), yellow toadflax (*Linaria vulgaris*). List C species that occur in or near the proposed lease sale parcels include cheatgrass (*Bromus tectorum*), common burdock (*Arctium minus*), common mullein (*Verbascum thapsus*), field bindweed (*Convolvulus arvensis*), perennial sowthistle (*Sonchus arvensis*), poison hemlock (*Conium maculatum*), and halogeton (*Halogeton glomeratus*).

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. Cheatgrass, an undesirable, non-native, invasive annual grass is present in many plant communities throughout the proposed lease sale areas. 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 development related disturbances that lacked reclamation. Reclamation of these sites tends to require more intensive actions to successfully reestablish desirable vegetation.

<u>Environmental Consequences of Leasing and Development - Direct and Indirect Impacts</u>: Across alternatives the lease sale itself will have no direct or indirect impacts to plant communities in the affected areas.

Alternative 2: Where leasing and development occurs there would be additional disturbance throughout the project areas creating opportunity for noxious weeds to establish and/or spread. Cheatgrass and other weedy annuals are common along roadsides and other disturbed areas. These and other species of noxious weeds are spread by vehicle traffic, livestock, wind, water, recreational vehicles, and wildlife. There would also be potential for new weeds to be transported into the development site areas 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.

At the APD stage, the operator would be required to control or eradicate 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. Employing site specific weed management including principles of integrated pest management, and herbicide application would reduce noxious and invasive weed establishment. Mitigation measures for noxious and invasive weed control would be developed in site specific environmental analysis at the APD stage.

Under Alternative 3 those parcels that are deferred from the June 2014 lease sale offering would not be subject to development related impacts associated with extraction of oil and gas resources on those parcels. However, unless they are permanently withdrawn from leasing they could be made available for future lease sales at which time they would likely be subject to potential development related impacts as described above. On-going development would continue to occur in leased areas with associated risk for the spread of noxious and invasive weeds from the construction of well pads, pipelines, roads, and other oil and gas development related infrastructure.

Environmental Consequences of Leasing and Development - Cumulative Impacts: Future development within the proposed lease sale parcels would result in additional vegetation loss and surface disturbance. Past and present oil and gas activities and other activities listed in Section 3.3 have already created disturbance with associated weed spread in the area. These activities as well as oil and gas development are 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.

3.4.2.3 Migratory Birds

Affected Environment: BLM Instruction Memorandum No. 2008-050 provides guidance towards meeting the BLM's responsibilities under the Migratory Bird Treaty Act (MBTA) and Executive Order (EO) 13186. The guidance emphasizes management of habitat for species of conservation concern by avoiding or minimizing negative impacts and restoring and enhancing habitat quality. The BLM lends increased management attention to migratory birds listed by the U.S. Fish and Wildlife Service (FWS) as Birds of Conservation Concern (BOCC), in this case for Bird Conservation Region 16; BLM Colorado State Director's sensitive species; and BLM's Priority Migratory Birds; which are species of concern and management focus that was recently implemented to supplement the FWS's list of BOCC. 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.

The proposed lease parcels encompass a wide variety of habitats, including pinyon-juniper woodland (e.g., pinyon jay, black-throated gray warbler), juniper woodland (e.g., gray vireo), big sagebrush (e.g., Brewer's sparrow, sage thrasher), saltbush (e.g., loggerhead shrike, sage sparrow), deciduous shrub (Virginia's warbler, green-tailed towhee), aspen (e.g., red-naped sapsucker), spruce-fir (e.g., olive-sided flycatcher), and various woody riparian communities (e.g., veery, willow flycatcher). These habitats support a large array of migratory birds during the breeding season (generally May through July).

With no notable exceptions, 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 conditions.

Environmental Consequences of Leasing and Development – Direct and Indirect Impacts: The actual lease sale would not impact any migratory bird species or their habitat, however, potential

future development of the proposed leased parcels would influence both localized populations and their associated habitats. The potential effects of lease development on migratory birds are adequately represented by the discussion for Brewer's sparrow in the Special Status Animal Species section.

Under Alternative 3, the same management measures would be applied to vegetation communities located within offered lease parcels as discussed in Alternative 2 and it would be assumed the consequences of those measures would be identical in nature. However, the deferrals recommended in this alternative would intentionally or coincidentally remove lands that support those communities from leasing consideration. The deferred leases do not host habitats that are particularly unique or limited in supply and it is unlikely that future management prescriptions would dramatically alter the ultimate consequence of subsequent leasing. There would be no further development authorized until these lands were again offered in future sales, in which case, land use decisions and management measures would conform to the most recent land use plan.

Environmental Consequences of Leasing and Development - Cumulative Impacts: Lease development would represent incremental loss and adverse modification of habitat and the birds associated with that habitat. Although disturbance-based impacts tend to be variable through time and quickly reversible, modification of woody habitat would be a longer duration event (50-200+ years). However, it is expected that overall losses of these longer-to-develop habitats would remain within the range of natural variability (e.g., no more than 10%, based on analysis in draft White River Oil and Gas Resource Management Plan Amendment).

3.4.2.4 Special Status Animals

Affected Environment: The only listed species that have potential to be influenced by development of the proposed leases are the Colorado pikeminnow and black-footed ferret.

The Colorado pikeminnow occurs in the White River below Taylor Draw Dam and Kenney Reservoir, although the White River and its 100-year floodplain from Rio Blanco Lake to the Utah state line are designated critical habitat for the fish. The White River in Colorado does not appear to support spawning activity, young-of-year nurseries, or juvenile concentration areas for the Colorado pikeminnow. Additionally, while the listed bonytail, humpback chub, and razorback sucker do not occur in the White River, its flow contributions are important in supporting these species' downstream habitats in the Green River. Although all the lease parcels eventually drain to the White River, a number of parcels encompass or skirt the White River 100-year floodplain, including parcel 6790 that involves occupied habitat near the Utah State line and the cluster at the mouth of Wolf Creek (6753 through 6758), which is separated from downstream occupied habitat by about 22 river miles.

Reintroduced ferrets and their offspring in northwestern Colorado and northeastern Utah are designated as a nonessential experimental population. All of the WRFO Planning Area within Rio Blanco and Moffat counties west of SH 13 to the Utah state line is within the boundaries designated for the nonessential experimental population. Black-footed ferrets were initially reintroduced into the Wolf Creek Management Area beginning in 2001 with supplemental releases continuing annually through 2008. Minimum population size steadily increased from

2002 through 2007, with a minimum population estimate of 16 individuals in the fall of 2007. Beginning in 2008, a decline in ferret numbers was observed during fall surveys. This reduction in individuals is coincident with a plague epizootic discovered in the Wolf Creek prairie dog population during the summer of 2008. Monitoring efforts conducted in 2009 and 2010 did not yield any confirmed sightings of black-footed ferrets. A single ferret was recorded in the WRFO Planning Area during a 2010 survey effort along the Utah border and was believed to be a wild-borne kit that originated from Utah. There are no ferrets known to be occupying habitats associated with the proposed lease parcels. Further ferret releases in the WRFO Planning Area have been suspended until the prairie dog populations recover sufficiently to support reintroductions.

The FWS is considering whether or not to list the western yellow-billed cuckoo under the Endangered Species Act. There are no recent records of this species from the WRFO Planning Area.

Western populations of cuckoo are almost exclusively associated with native cottonwood-willow gallery forests along river corridors. Based on work in California, the most important determinants of suitable breeding habitat are patch size, habitat continuity, canopy closure, and understory condition. Although breeding pairs were found to occupy habitat patches as small as 10 acres, patches smaller than 40 acres, less than 100 meters wide, or with canopy closure of less than 40% were considered unsuitable. Denser stands of cottonwood along the White River are widely separated and normally do not exceed 100 meters in width or 5 acres in areal extent; the 3 largest stands are about 10 acres each. Under historical agricultural use, these stands tend to possess relatively open understories. There is little likelihood that BLM-administered parcels along the White River are capable of independently supporting a breeding pair of cuckoo. Below Yellow Creek, subcanopy shrubs in Fremont cottonwood gallery forests along the White River are increasingly represented by exotic tamarisk and Russian olive. Cottonwood stands below Rangely (e.g., lease parcel 6790) are dominated by these undesirable species. The lease parcels near the mouth of Wolf Creek are devoid of appropriate stands of willow or cottonwood.

A number of BLM-sensitive animal species are known to occur or potentially inhabit the lease parcels or may be indirectly influenced from their development, including the greater sage-grouse, yellow-billed cuckoo, bald eagle, burrowing owl, ferruginous hawk, 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, midget faded rattlesnake, Colorado River cutthroat trout, flannelmouth sucker, mountain sucker, roundtail chub, and bluehead sucker.

The roundtail chub and bluehead sucker are confined to the White River. Flannelmouth and mountain sucker also inhabit the White River but these fish are consistently found in its larger tributary streams as well (e.g., Piceance Creek, Yellow Creek, Black Sulphur Creek). Similarly, the northern leopard frog appears to be patchily distributed along the White River and virtually all lower elevation riparian and wetland habitats in the WRFO.

Most of the lease parcels on the White –Colorado River divide and the East Douglas drainage are encompassed by the East Douglas Creek ACEC. This ACEC circumscribes the watershed contributing to most of the BLM-administered native cutthroat trout habitat in the WRFO (lineage Colorado River). This ACEC was established through the 1997 RMP with the intent of highlighting these fishery values and as the basis to coordinate all land uses in a manner compatible with or complementary to stream habitat recovery. Occupied stream reaches more

closely associated with proposed lease parcels include Bear Park (downstream of lease parcel 6779), Lake Creek (downstream and encompassed by parcels 6770-6772), and Soldier Creek (downstream and encompassed by parcels 6771, 6772, and 6768). Colorado River cutthroat trout are also present in that portion of Black Sulphur Creek (outside the ACEC) encompassed by lease parcel 6815.

The Conservation Strategy for Colorado River Cutthroat Trout (2006) established a hierarchical classification for populations of CRCT that provides the basis for prioritizing genetic purity of a population and the level of conservation management applied to it. The Strategy established and identified "conservation populations" that are categorized by genetic purity. "Core conservation populations" represent genetically unaltered (i.e., greater than 99 percent CRCT) populations that are intended to be the primary source for transplants and broodstock development. Remaining conservation populations are those that may be slightly hybridized (greater than or equal to 90 percent CRCT), but retain unique ecological, genetic, or behavioral attributes that are considered important in the context of preserving the full range of genetic expression developed in the species (e.g., tolerance to warm water temperatures). Until recently, none of the WRFO populations in the East Douglas Creek or Piceance Creek Basins were considered of sufficient genetic quality to be categorized as conservation populations. However, based on more advanced genetic testing, virtually all of these CRCT fisheries appear to now be recognized as a conservation population (Black Sulphur Creek) or meet the criteria for designation as conservation populations.

Although the distribution of bats in the WRFO is not completely 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 that could serve 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, Deep Channel Creek, Piceance Creek, and East Douglas Creek and its tributaries, there are no underground mines or known caves, and unoccupied buildings are extremely limited in the areas proposed for leasing. Birthing and rearing of young for these bats occurs in May and June, and young are volant (capable of flying) by the end of July. The big free-tailed bat is not known to breed in Colorado.

Based on BLM's experience, goshawks nest at low densities throughout the WRFO in mature pinyon-juniper woodlands above 6,500 ft and Douglas-fir and aspen stands. These habitats are well distributed in those parcels composed of higher elevation woodlands and forests in East Douglas Creek and its tributaries and near the White-Colorado River divide. 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.

Brewer's sparrows are common and widely distributed in virtually all big sagebrush, greasewood, saltbush, and mixed brush communities throughout the planning area. These birds are typically one of the most common members of these avian communities and breeding densities generally range between 10-40 pairs per 100 acres. Although most abundant in extensive stands of sagebrush, the birds appear regularly in small (one to two acre) sagebrush

parks scattered among area woodlands and there is a strong possibility that they may be found nesting on every lease parcel. Typical of most migratory passerines in this area, nesting activities normally take place between mid-May and mid-July.

Northwest Colorado lies on the eastern margin of Great Basin spadefoot toad distribution. Spadefoot toads are known recently from western Rio Blanco County, including Cottonwood Creek just north of lease parcel 6778 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 stock ponds distributed throughout the project area that retain water over the minimum five week reproductive and larval development period.

The midget faded rattlesnake is the smallest member of the western rattlesnake species complex. This subspecies is thought to be generally confined to the Green River geologic formation in southeast Wyoming, eastern Utah and western Colorado, and appears to have very narrow preference for bedded sandstone outcrops with fallen mid-slope slabs on south to southeast exposures below 7,000 feet in elevation. Midget faded rattlesnakes occur in small discrete groups and exhibit classic metapopulation distribution. These snakes display strong fidelity to and remain closely associated with hibernacula for overwintering and reproductive activities. Narrowly adapted to specialized habitat, this snake was documented in scattered locations across the WRFO during the summer of 2012, and is likely the only rattlesnake south of the White River. The snakes' distribution north of the White River is complex, with inclusions of the more common prairie rattlesnake associated with prairie dog colonies in the Wolf Creek basin and probably those lease parcels in Deep Channel Creek (e.g., 6814). Population trends are not known.

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 nest sites situated in river corridor's cottonwood stands, occur in close proximity to lease parcels 6790, 6754, and 6778.

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. Prairie dog habitat (i.e., past or recent evidence of occupation) encompassed by these proposed leases are confined to those in the Wolf Creek ferret management area (i.e., 6755-6557, 6759, and 6764). Prairie dog habitat is distributed across 2,400 acres of these lease parcels, which represents about 7 percent of the habitat available in the lower Wolf Creek basin or 3-4 percent of all prairie dog habitat in the WRFO.

Burrowing owls are uncommon summer residents associated with white-tailed prairie dog colonies. Although it has been suggested that burrowing owl populations appear to be declining

in western Colorado, with only 20 pairs found during extensive surveys throughout western Colorado in 2002, burrowing owl populations in the WRFO are thought to have remained consistent with habitat availability over the past decade. WRFO staff are normally aware of a half-dozen nest sites annually. In 2009, the WRFO conducted comprehensive surveys for these owls in the Wolf Creek Management Area, Coal Oil Basin, and areas south of Dinosaur, CO. Thirty birds were observed with 18 documented nest sites. Although nesting owls could appear on any prairie dog town, the only nesting effort that has been documented in close proximity to the proposed leases was in 2004 just north of lease parcel 6757.

The ferruginous hawk was, until recently, an uncommon breeding species in the WRFO. This species occurs from Elk Springs west to Dinosaur and south to Rangely. Their distribution coincides closely with that of white-tailed prairie dogs which, along with cottontail rabbits, form the bulk of the birds' prey base. Based on a ferruginous hawk monitoring study conducted from 1981 through 1988, there were 94 nest sites distributed among approximately 45 breeding territories within the WRFO Planning Area, of which an average of 18 were active annually.

Ferruginous hawk nesting effort and success are strongly correlated with their prey base and populations are prone to wide fluctuations. Surveys conducted by the FWS in 1991 and 1992 along the U.S. 40 corridor documented 5 and 14 active nests, respectively. Aerial surveys were conducted in 2009 and 2011 to document nest activity. All historical nest locations (natural and human made) were revisited in addition to areas with suitable habitat, but no active nesting efforts were confirmed despite relatively consistent availability of prairie dogs and/or cottontail rabbits and no further land use influences which would be expected to suppress territory occupancy. Typically returning in late-February, these birds begin nesting in earnest by mid-April with young generally fledged by late-July. Although several historic nest sites are located in and near lease parcels 6755-6557, 6759, and 6764, aerial surveys conducted in 2009 and 2011 showed no evidence of recent nesting attempts in or around lower Wolf and Divide Creeks.

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).

A single lek remains in the lower Wolf Creek basin south Highway 40 and is central to the small number of birds that reside in these lower elevation saltbush and sagebrush ranges. Mesic sites that offer a source of succulent forage important for late season brood habitat are extremely limited on these arid ranges and are typically confined to the deeply incised channels of Wolf and Divide Creek (e.g., 6756, 6757, 6759). Remnant populations along the lower White River, including Dripping Rock, Boise Creek, Red Wash, Hall Draw, and Smizer Gulch may be locally extirpated.

Newly developed (Colorado Parks and Wildlife, 2012) preliminary priority and preliminary general habitat designations have been used for this analysis. Preliminary priority habitat represents areas having the highest conservation value in maintaining sustainable sage-grouse populations, including breeding, later brood-rearing, and winter concentration areas. These habitats have been removed from leasing consideration. Preliminary general habitat represents

occupied or recently occupied habitats that are outside priority habitat. These two habitat categories conform well to former mapping that emphasized suitable habitat within 4 miles of current or recently active leks. The mapping tends to be somewhat unrefined and there are a number of instances where continuously suitable sagebrush habitats are dissected by a mapping unit and are then inaccurately categorized as general (rather than priority) habitat or lying outside suitable habitat. For purposes of this analysis, these instances have been reassessed by WRFO based on experience and interpreting NAIP imagery on a site-specific basis.

Environmental Consequences of Leasing and Development - Direct and Indirect Impacts: Water depletions attributable to fluid mineral development from the Colorado River Basin would contribute to factors that 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 or posing a toxic risk to fish in the White River. Details on reportable spills and releases that have occurred in the WRFO provide perspective on the risk they pose to aquatic habitats. Since 2000, about 545 spill and release incidents in Rio Blanco County have been reported to COGCC. One hundred nine of these spills were uncontained and of sufficient volume to affect an area exceeding one square foot. Of these, two were reported as affecting groundwater: cleanup of a tank battery on private land along lower Piceance Creek and the release of 5 barrels of produced water with subsequent recovery of 4 barrels in the Rangely Oil Field, 5 channel miles from the White River. Six incidents were reported as affecting surface water: a pipeline failure and release of produced brine into an ephemeral draw in the Rangely Field, two pipeline failures that released filtered produced water (no hydrocarbons) into ephemeral draws of Evacuation Creek (about 23 valley miles from the White River in Utah), the flushing of drill cuttings from a pit to an ephemeral draw of Yellow Creek during a flash flood event several ephemeral channel miles from the nearest perennial flow, and finally, the only event where hydrocarbons discharged directly into a surface water system, a storage system failure that resulted in the loss of 10 barrels of oil and 30 barrels of water into Wilson Creek (north of Meeker) in 2003. Spill contingencies were in place

at the time and accounted for 95 percent recovery of the oil and 93 percent recovery of produced water.

Rapid and effective containment and cleanup are typical responses to hydrocarbon and produced water spills in the WRFO. The WRFO is aware of no releases from pads or pipelines in this Field Office over the past 35 years that have resulted in chronic or acutely toxic effects on aquatic vertebrates. Furthermore, as the most common contaminant generated by oil and gas development, sediment control standards have undergone substantial upgrade and are now routinely integrated with site-specific project proposals as required through COGCC and CDPHE.

Although there are no RMP-derived management measures that are explicitly directed at management of pikeminnow or their critical habitat, a number of complementary management actions focus attention on and provide the basis for appropriate levels of protection, including: two CSU stipulations applicable to the White River ACEC (100-year floodplain of White River) which is intended to protect the integrity of unique plant communities (cottonwood gallery forests) and channel processes that sustain the long-term availability of cottonwood as bald eagle nest, roost, and perch substrate. In addition to more universal BLM riparian protection policies, the RMP provides a prescription that requires avoidance of priority riparian habitat, including all BLM holdings on the White River. Furthermore, individual fluid mineral development actions that may affect critical habitat or fish populations would prompt ESA Section 7 consultation with the FWS and, where warranted, result in the development of conservation actions that would prevent substantive adverse direct and indirect influences.

Black-footed ferret/White-tailed prairie dog: Current management direction for reintroduced black-footed ferret and their white-tailed prairie dog prey base was developed through several inter-related documents (examples listed below) that culminated in "A Cooperative Plan for Black-Footed Ferret Reintroduction and Management" (Ferret Management Plan). In this plan, mineral development and utility installation would be designed to avoid or, where unavoidable, minimize adverse influence of ferret/prairie dog habitat. Where adverse impacts are unavoidable, cooperatively designed equal and in-kind replacement of prairie dog habitat may be developed and applied as a Condition of Approval. These management prescriptions are represented by a CSU and Lease Notice and are applicable to leases 6755-6557, 6759, and 6764 in Alternative 2 (note that Alternative 3 defers these parcels from leasing consideration). Although this management format was, and continues to be, considered adequate to achieve ferret recovery objectives in the WRFO, there has been no opportunity to apply these measures in a practical situation (i.e., no development activity in the management areas since the plan's inception).

As a designated BLM-sensitive species, site-specific mitigation measures are routinely developed at the APD stage that include seasonal activity restrictions and facility siting criteria that minimizes or avoids adverse impacts to prairie dogs and ferrets, particularly during the reproductive period.

The WRFO is unaware of empirical studies that evaluate the long or short term effects of oil and gas development on white-tailed prairie dogs, but habitat loss, behavioral avoidance, and direct mortality likely have negative effects on individuals and local populations. Conversely, some of the most robust and resilient prairie dog colonies in the WRFO (e.g., Rangely Oil Field) and

surrounding regions are situated among concentrated oil and gas developments. The FWS in their "12-month Finding on a Petition to List the White-tailed Prairie Dog as Endangered or Threatened" (2010; Federal Register, Volume 75, No. 104, pages 30338-30363) found that available evidence does not indicate that oil and gas development, as currently practiced and managed, poses a significant threat to the white-tailed prairie dog as a species now or in the foreseeable future.

BLM sensitive fish and northern leopard frog: Because of coincident occupation of aquatic and riparian systems associated with the proposed lease parcels, the discussions pertaining to Colorado pikeminnow (e.g., roundtail chub, bluehead sucker), Colorado River cutthroat trout (e.g., flannelmouth and mountain suckers) and Wetlands and Riparian Zones (e.g., northern leopard frog) are pertinent to this group of sensitive species. Considering WRFO RMP-derived management emphasis on riparian and channel avoidance, sedimentation control, and channel reclamation, it is unlikely that lease development would have any substantive consequence on the condition or function of channel features associated with aquatic and riparian 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.

Further, based on recent NAIP imagery, there is no indication that legacy or vintage well locations and related-infrastructure in the Douglas Creek and Black Sulphur Creek watersheds contribute or have contributed to degradation (e.g., chronic and excessive sediment contributions) of contributing channels or subtending aquatic habitats. Based on the persistence and appropriate composition of aquatic life in these systems (implying reproduction and nutrition are adequate), it would seem appropriate to infer that past oil and gas development which was conducted at a much lower standard and with much less scrutiny than present had no lasting, if any, adverse influence on aquatic conditions or system function.

Colorado River cutthroat trout (CRCT): The proposed lease parcels directly involve about 7.2 miles of streams occupied by CRCT and, with the exception of Black Sulphur Creek, are associated with the East Douglas ACEC (see Environmental Consequences of Leasing and Development - Direct and Indirect Impacts: There are no impacts associated with the leasing these parcels. See discussions in the Special Status Animal Species and Wetland and Riparian Zones sections concerning impacts that may be attributable to lease development. 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. 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.

Table 17 and Table 18 in the Aquatic Wildlife section). The East Douglas ACEC was established through the 1997 White River RMP to highlight that portion of the East Douglas Creek watershed that encompasses most of the WRFO's native cutthroat trout habitat. ACEC designation was intended to provide a means to "coordinate all land uses in a manner compatible with or complementary to stream habitat recovery." Fluid mineral development that may impose on aquatic habitat encompassed by the East Douglas Creek and Black Sulphur Creek fishery are subject to a CSU stipulation that identifies important constituent elements of aquatic habitat that are considered by the BLM during NEPA analysis and provides the basis to formulate and apply Conditions of Approval that, when warranted, address anticipated risks or unanticipated consequences of development that takes place in these watersheds (e.g., those risking adverse change in stream morphology, including vegetation-derived stability and shading). The measure allows preventative or remedial action to be specifically tailored and scaled across the watershed or contributing drainage area commensurate with site specific analysis and a reasoned evaluation of risk or detected effects.

The CSU stipulation requires that the proposed development be conditioned so as to not compromise important constituents of aquatic habitat. Depending on the calculated risk, the operator may be required to monitor for changes in specific parameters and would be required to remedy adverse shifts or changes in aquatic habitat conditions attributable to the authorized action. These objectives apply to occupied habitats as well as contributing perennial and intermittent tributaries and explicitly apply to the following parameters: sediment accumulation, stream gradient, channel sinuosity, channel width: depth ratios, water temperature, vegetation-derived stream shading (invertebrate source, water temperature), and water quality.

Although CSU stipulations are generally not perceived as being as stringent as NSO stipulations in preventing disturbance of terraces adjacent to channels, they also provide a degree of management flexibility in allowing certain uses that are, or can be conditioned to be, compatible with riparian or aquatic values. There are a number of examples in the WRFO where pads have been constructed in close proximity to perennial channels and, with appropriate considerations for pad design and reclamation-derived soil stability, show no evidence of contributing to elevated sediment delivery to the system in the short or long term.

Sediments specifically attributable to past oil and gas developments have not been implicated as sources deleterious to these fisheries. Risks involving inadvertent off-pad release of toxic substances are considered low (as discussed for Colorado pikeminnow above). Recent COGCC regulations and improved reclamation attention by the BLM are expected to limit fugitive sediment attributable to oil and gas development to rates that will be undetectable from background levels.

The current suite of State and federal regulatory processes regulating the potential for off-site sediment and contaminant delivery are expected to remain capable of reducing the risk of indirect damage to these aquatic habitats from well development in contributing positions within the watershed.

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

and roost features may be subject to localized disturbance from development activity and, considering routine avoidance of better developed woodland stands where possible, relatively minor but long term reductions in the areal extent of mature woodland stands as sources of roost substrate.

Northern goshawk: Although there are no known goshawk nests within the proposed lease parcels, aspen, spruce-fir, and mature pinyon-juniper communities are widely distributed within these lease offerings and provide suitable nesting habitat. The combination of a 0.25 mile NSO and 0.5 mile Timing Limitation (TL) lease stipulations and complementary siting criteria that allows for adjustments to 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 for effective lateral separation 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.

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 avoidance effect operates similarly in the WRFO. Indirect habitat loss attributable to this behavioral response adds substantially to the direct 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 2-5 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 higher value habitat. When practical and warranted from an operational perspective and particularly when higher priority species are involved, COAs are attached to the APD that restricts construction and/or drilling/completion activities during the core nesting season (e.g., May 15 through July 15). Although lease parcel development would be expected to 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.

Great Basin Spadefoot and Midget Faded Rattlesnake: All or portions of 9 lease parcels have potential to support habitat suited for midget faded rattlesnake (i.e., 6753, 6754, 6756-6758, 6813, 6769, 6778, and 6790). At the present time, COAs are developed and applied on a site-specific basis to: survey for evidence of their occurrence prior to surface disturbance, avoid habitat features suited for hibernacula/maternity sites by up to 660 feet, and manage access systems (e.g., gating) to reduce the risk of direct mortality. Similarly, sites that have potential to support Great Basin spadefoot reproduction are limited to single stock ponds in parcel 6813 and 6778 near the Utah border. Minimum 660 foot avoidance buffers, access management, and special reclamation prescriptions would remain available as a means of reducing or avoiding direct and indirect impacts to subsequently discovered breeding sites and associated habitat.

Site-specific impacts associated with the development of these lease parcels would be determined at the APD stage. With the application of COAs listed here, the likelihood of population level impacts to these species would be expected to remain low.

Bald eagle: Lease parcels located along the White River corridor involve a number of bald eagle winter roost stands and one former nest site. Bald eagle roosts are located within or nearby parcels 6753, 6754, 6756, and 6790; the single former nest site is encompassed by parcel 6790. These habitat features are assigned NSO buffers of 0.25 mile and TL buffers of 0.5 mile in Alternative 2 (note: these leases deferred in Alternative 3). These buffers have remained effective at maintaining gallery forest character and providing the separation and isolation necessary to prevent nest disruption, but have been used only very occasionally over the past 35 years (little well development on BLM-administered lands in White River valley proper). Further, CSU stipulations applicable to the White River ACEC (100-year floodplain of White River) are intended to protect the integrity of unique plant communities (cottonwood gallery forests) and channel processes that sustain the long-term availability of cottonwood as bald eagle nest, roost, and perch substrate.

Ferruginous hawk and burrowing owl: Most of the management topics discussed for northern goshawk (above) pertain to these raptors, as well. The proposed leases involve 3 historic ferruginous hawk nest clusters and 2 former burrowing owl nest burrows, all of which are encompassed by lease parcels 6755-6757, and 6759. As BLM sensitive species both birds are afforded ¼ mile radius NSO stipulations and 0.5 mile (owl) and 1 mile ferruginous hawk radius timing limitations in Alternative 2 (note: these leases deferred in Alternative 3). Although lease development would not tend to alter the character of these saltbush/sagebrush habitats, site-specific siting adjustments are often in order to minimize the prominence of residual production and maintenance activity from the nest site (i.e., line-of-sight). Prior to the downturn in ferruginous hawk populations in the WRFO, this stipulation set was effective in preventing reproductive failures and maintaining the integrity of the nest site for subsequent nest functions.

Greater sage-grouse: Greater sage-grouse and their response to oil and gas development activity has been the subject of much study and management attention over the last decade, and has, in part, prompted the recent (March 2010) FWS finding that the range-wide listing of greater sage-grouse as threatened or endangered is warranted, but presently precluded due to higher priority listing actions. Although cause and effect relationships have not been firmly established and the pattern and density of development varies widely among these studies, the implications have remained consistent, that is: oil and gas development activity and its infrastructure exert

influences on sage-grouse behavior and demographics at distances up to 4 miles, prompting declines in lek persistence and male attendance, yearling and adult hen survival, and nest initiation rates and eliciting strong avoidance response in yearling age classes, nesting/brooding hens, and wintering birds.

Most sage-grouse research has used various measures of lek use to infer population responses in sage-grouse subjected to development-related disturbances. Without exception, this work documents increased rates of lek inactivity and declining male attendance in response to increased frequency (vehicle use), intensity (well density), duration, and proximity of development activity and infrastructure. Although adult sage-grouse exhibit strong fidelity to nesting areas, there are strong indications that infrastructure and activity avoidance by and reduced survival of sage-grouse, particularly in yearling age-classes, drives declines in sage-grouse populations subjected to development activity. Considering time-lag effects of 2-10 years, Harju et al. (2010) found evidence for declining lek attendance at low infrastructure density (1-2 pads per square mile). Although the temporal and numerical response to disturbance in different populations was variable, their work suggested that limiting pad density and abbreviating the duration of disturbance are key to maintaining populations.

Noise, too has been implicated as an important determinant in prompting declines in male lek attendance. Hollaran (2005) found leks within 3 miles of drilling activity experienced significantly greater rates of decline than controls, but this effect was asymmetric and primarily affected leks positioned downwind of drilling activity. Male attendance on leks upwind of activity did not change relative to controls. Recent investigations of noise-related effects on sage-grouse have strengthened these notions (Patricelli et al., unpublished).

Many attributes of road networks (i.e., road density, frequency of use, and timing of use) appear to adversely influence affected sage-grouse ranges. Holloran (2005) found road densities that exceeded 0.7 miles per square mile within 2 miles of a lek caused progressive declines in average annual lek attendance from 15 percent (0.7 to 1 mile per square mile) to 56 percent at 1.7 miles per square mile. Lyon and Anderson (2003) found 75 percent of hens associated with a roadside lek selected nest sites greater than 1.8 miles from the lek, compared to 9 percent of hens associated with undisturbed leks. This level of avoidance translates to a 73 percent reduction in the utility of nesting habitat within nearly 2 miles of roads bearing relatively light (less than 12 vehicle trips/day) use. Birds less consistently avoided producing pads that incorporated fluids gathering systems, which implies that sage-grouse may also be sensitive to the frequency of vehicle use (Wyoming Wildlife Consultants, 2009). On leks within 1 mile of main access roads, male attendance declined 35 percent when used early in the morning during the strutting period, but declined by 11 percent in the absence of traffic (Holloran 2005).

Residual maintenance and production activities that are normally exempt from timing limitations can be sufficient to elicit strong avoidance of roadside habitat and generate vehicle noise that interferes with grouse communication (e.g., during lekking).

Traditionally applied timing limitation stipulations would be the primary device used to reduce development-related influences on sage-grouse on these remaining lesser and more peripheral sage-grouse habitats. Although the use of traditional stipulations have been criticized by some authors, recent research demonstrates or acknowledges (Holloran 2005, Holloran et al. 2010,

Wyoming Wildlife Consultants 2009, Blickley et al. 2012) that those measures formerly adopted and espoused by the BLM, State Wildlife Agencies, and FWS (i.e., TL stipulations addressed below) are capable of reducing impacts associated with avoidance, but based on current understandings and by themselves, not to the degree necessary to stem progressive declines in populations subjected to pervasive or prolonged development activity.

The timing limitation stipulation that is intended to reduce disruption of ongoing nest efforts is applied to suitable nest habitat within 2 miles of a lek. The density and distribution of leks in the Piceance Basin generally provides buffer coverage that is comparable to the more recently accepted 4-mile lek buffer.

Generally, nominated leases that were composed largely of priority habitat were excised from this lease sale. Certain important general habitats that remain available for leasing are discussed by lease parcel below.

The two segments of lease parcel 6814 (and small portions of lease parcel 6816) generally abut mapped priority and general habitat in Deep Channel Creek. General habitat in these parcels is composed, in part, by suitable sagebrush cover, but more importantly include wetland and riparian bottomlands associated with Deep Channel Creek (i.e., important brood habitat component). These parcels were recommended for deferral in Alternative 3. Similarly, although lease parcels 6757 and 6759 are composed entirely of general habitat, these parcels are bisected by the lower mainstem of Wolf Creek. WRFO staff has witnessed concentrated brood use along this broad and deeply incised channel during dry, late summer periods—the birds presumably being afforded temperature moderation and succulent sources of forage on these xeric, low elevation ranges. General habitat in lower Wolf Creek (lease parcels 6755-6759 and 6764) associated with these important habitat features would be considered for deferral in Alternative 3.

Lease parcels 6768 and 6772 are composed largely of high-elevation sagebrush habitats suited to the support of sage-grouse. These parcels are encompassed by the CPW Square S Summer Range State Wildlife Area, and involve about 1,000 and 150 acres, respectively, of sage-grouse priority habitat. Remaining acreage is classified as general habitat which abuts and extends continuously from priority habitat as distal ridgeline extensions. These habitat extensions were recommended for deferral in Alternative 3. Lease 6773 encompasses considerable general habitat with minor acreage extending into parcels 6769, 6772, and 6770. This ridgeline series is segregated from designated priority habitat to the east by 2 miles of largely unsuitable terrain. Its habitat base is well interspersed with forested draws and shale outcrops that substantially fragments and limits the effective extent and continuity of sagebrush stands better suited to the support of sage-grouse (i.e., 245 total acres in 5 parcels varying from 25 to 100 acres). This general habitat was not considered for deferral in Alternative 3.

Lease parcel 6815 encompasses a distal extension of mapped priority habitat. Downridge general habitat represents a continuous, undifferentiated extension of well-suited sagebrush cover along an acceptably broad ridgeline. This ridgeline extension was considered for deferral in Alternative 3.

Effects of leasing with recommended deferrals: The same management measures would be applied to vegetation communities and associated habitats located within offered lease parcels as discussed in Alternative 2 and it would be assumed the consequences of those measures would be identical in nature. However, the deferrals considered in this alternative would intentionally or coincidentally remove lands that support those habitats from leasing consideration. In most cases, the deferred leases do not host habitats that are particularly unique or limited in supply and it is unlikely that future management prescriptions would dramatically alter the ultimate consequence of subsequent leasing. There would be no further development authorized until these lands were again offered in future sales, in which case, land use decisions and management measures would conform to the most recent land use plan. On the other hand, the deferred parcels would offer the opportunity for BLM to consider the installation of more contemporary management practices and to adjust land management practices to better address future resource issues that will attend mineral and other land use development. This is particularly relevant to sage-grouse, where new management direction and philosophies are indicated to prevent listing and promote recovery of the species.

Environmental Consequences of Leasing and Development - Cumulative Impacts: Water quality and riparian protections that are implemented through the BLM, EPA, COGCC, and CDPHE are expected to suffice in avoiding substantive cumulative contributions toward the degradation of critical habitat (i.e., pikeminnow) or water quality attributable to fluid mineral development. However, lease development is likely to incrementally increase the volume of water removed from the White River and its major tributaries, which constitute the aquatic habitats relied upon by these special status fish. Water use attributable to projected oil and gas development in the WRFO over the next 20 years (4.4 cubic feet per second) was generally expected to result in modest flow reductions in the White River (3 percent of baseflow, 0.3 percent of spring flow). These reductions are not expected to have measurable effect on fish populations in the White River except during exceptionally dry years when fish passage through shallow riffle areas may be temporarily interrupted. Flow depletions from smaller tributary streams may be more problematic with regard to the exercise of existing water rights. Water rights are administered by the State of Colorado and this effect is largely beyond the control of the BLM.

It is likely that development of those leases encompassing or upstream of occupied CRCT fisheries would contribute incrementally to sediment loads in these systems. However, federal oil and gas development in the East Douglas and Black Sulphur watersheds has remained spare over the past 20 years and WRFO is not aware of any federally-administered oil and gas related infrastructure that contributes sediment or other contaminants at levels that have prompted channel instability or that contributes to water quality degradation within those systems supporting a fisheries. The distribution of cutthroat trout and habitat conditions associated with those leases under consideration have remained intact through at least 40 years of coincident oil and gas development and this circumstance is unlikely to change with the increasing attention and regulation presently being applied to the industry with regard to water quality. Riparian and aquatic habitat management provisions expressed in the 1997 RMP and as strengthened by current BLM riparian, sensitive species, and fluid mineral management policies would be expected to remain effective in reducing direct involvement to minor and temporary events and reducing indirect influences on riparian vegetation, channel function, and water quality to levels indiscernible from system background.

Lease development would involve the clearing of vegetation and long-term occupation of the land base that represents the incremental deterioration or loss of forage or cover resources for all terrestrial wildlife, including these special status species. However, considering that lease development would likely involve 5 percent or less of any individual lease and with management attention and emphasis attending these species status, it is considered unlikely that cumulative effects would rise to the level of adversely influencing the viability or distribution of any species. The most important cumulative aspect of lease development is the accumulation of persistent disturbances and the subsequent indirect loss of habitat utility on big game seasonal ranges. Although impossible to predict, development of these leases would contribute incrementally to ongoing and future forms of human activity across the landscape. In the larger context, these cumulative reductions in habitat capacity are expected to be substantial in the Piceance Basin (e.g., Brewer's sparrow, greater sage-grouse), but much reduced in other portions of the WRFO.

3.4.2.5 Special Status Plants

Affected Environment:
The WRFO provides habitats for two federally threatened and two proposed threatened plant species (including proposed critical habitat) listed under the Endangered Species Act. The Field Office also provides habitats for eleven BLM Sensitive plant species. Collectively these species are referred to as special status plant species (SSPS) (Table 13). One additional threatened species, Ute ladies'-tresses is known from Dinosaur National Monument. It has not been found on BLM lands, although habitats have been suspected to occur within the resource area. The majority of WRFO special status plant species are badland or rock outcrop soil associates, and the majority are considered "oil shale endemics" or edaphic (soil-related) endemic species.
Of the parcels available for lease, four contain occupied, suitable, or critical federally threatened, endangered, or proposed plant habitat (6760, 6761, 6778, and 6790) and five parcels contain BLM Sensitive plant species (6771, 6770, 6768, 6772, and 6755). Under Alternative 3, parcel 6755 and 6790 would be deferred as well as portions of parcels 6768, 6772, 6778.

Parcels 6760 and 6761 contain occupied and suitable Dudley Bluffs bladderpod habitat and suitable Dudley Bluffs twinpod habitat. These two wild mustards are found exclusively in Rio Blanco County, Colorado and lie in the heart of an ongoing natural gas field expansion. Dudley Bluffs bladderpod grows on barren white shale outcrops of the Thirteen-mile Creek Tongue of the Green River Formation where it is exposed along downcutting drainages or windswept ridges. It often grows on level surfaces at the points of ridges or in pinyon/juniper savannah areas where narrow outcrops of somewhat level white shales are exposed. Dudley Bluffs twinpod grows on barren white shale outcrops of the Thirteen-mile Creek Tongue of the Green River Formation where it is exposed along downcutting drainages, sometimes occurring below or interspersed with Dudley Bluffs bladderpod habitats. The twinpod occurs primarily on the Thirteen-mile Creek Tongue but also occurs without adjacent bladderpod habitats on the Parachute Creek Member of the Green River Formation near Calamity Ridge. The Dudley Bluffs twinpod occurs almost solely on steep side slopes. However, it is also found in small wash settings below sideslopes where soil and substrates have eroded and deposited on more level locations. Because the habitats for these two species occur only in a very restricted range on specific and highly fragmented substrates, they are limited in their ability to expand their range, or withstand stochastic events.

Parcel 6778 contains occupied White River beardtongue habitat and parcel 6790 contains suitable habitat for the White River beardtongue and Graham's beardtongue. These penstemons are found on steep exposures of the Parachute Creek member of the Green River Formation. This loosely deposited formation often forms narrow benches that occur in horizontal bands within extremely steep white shale slopes. Habitat for White River beardtongue is a series of knolls and slopes of raw oil shale derived from the Green River geologic formation (Franklin 1995). These soils are often white or infrequently red, fine-textured, shallow, and usually mixed with fragmented shale. Graham's beardtongue is an endemic plant found mostly in exposed oil shale strata of the Parachute Creek Member and other unclassified members of the Green River geologic formation. Most populations are associated with the surface exposure of the petroleum-bearing oil shale Mahogany ledge (Shultz and Mutz 1979; Neese and Smith 1982).

Parcels 6771, 6770, 6768, and 6772 contain occupied habitat for the BLM sensitive plant, Cathedral Bluff meadow rue. This species grows on sparsely vegetated steep talus slopes and ridges of the Parachute Creek Member of the Green River Shale. Populations of this species are found only in Garfield, Mesa, and Rio Blanco counties in Colorado (Neely et al. 2009). Parcel number 6755 contain occupied habitat for the BLM sensitive plant species, debris milkvetch. This species occurs on Colorado Plateau pinyon/juniper sites intermixed with low sagebrush shrublands on silty clay loams soil, and on alluvial terraces with cobbles. The milkvetch is confined to Moffat and Rio Blanco counties in Colorado and Duchesne and Uinta counties in Utah.

Table 13: Special Status Plant Species within the White River Field Office

Name	Species	Federal Status	Habitat
Dudley Bluffs bladderpod	*Physaria congesta*	Threatened	Barren, white shale outcrops of the Green River Formation (6,000-6,700 ft)
Dudley Bluffs Twinpod	*Physaria obcordata*	Threatened	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	Sub-irrigated alluvial soils along streams and in open meadows in floodplains (4,500-6,800 ft)
White River beardtongue	*Penstemon scariosus var. albifluvis*	Proposed	Sparsely vegetated shale slopes of the Green River Formation desert shrub and pinyon/juniper communities (5,000-7,200 feet)
Graham's beardtongue	*Penstemon grahamii*	Proposed	Talus slopes and knolls of the Green River Formation in sparsely vegetated desert scrub and pinyon/juniper (5,800-6,000 feet)
Debris milkvetch	*Astragalus detritalis*	Sensitive	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	Pinyon/juniper woodland and desert shrub, around sandstone or shale outcrops (4,600-6,400 ft)
Ligulate feverfew	*Bolophyta ligulata (Parthenium ligulatum)*	Sensitive	Barren shale knolls (5,400-6,500 ft)
Tufted cryptantha	*Cryptantha caespitosa (Oreocarya caespitosa)*	Sensitive	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	White shale slopes of the Green River Formation, in pinyon/juniper or cold desert shrub communities (5,300-5,800 ft)

Name	Species	Federal Status	Habitat
Ephedra buckwheat	*Eriogonum ephedroides*	Sensitive	Shale and clay flats of slopes in saltbush, sage and pinyon/juniper habitats (4,900-6,900 feet)
Cathedral Bluff dwarf gentian	*Gentianella tortuosa*	Sensitive	Barren shale knolls and slopes of the Green River Formation (8,500-10,800 ft)
Narrow-stem gilia	*Aliciella stenothyrsa (Gilia stenothyrsa)*	Sensitive	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	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	Seasonally wet areas in meadows, depressions or along arroyos in mixed conifer forest to sagebrush, on sandy gravelly, or rocky soils (5,300-8,500 ft)
Cathedral Bluff Meadow-rue	*Thalictrum heliophilum*	Sensitive	Sparsely vegetated, steep shale talus slopes of the Green River Formation (6,300-8,800 ft)

Environmental Consequences of Leasing and Development - Direct and Indirect Impacts:
The lease sale itself would have no direct or indirect impacts to special status plant species. However, activities that may ensue once parcels have been leased have the possibility to negatively impact SSPS. Surface disturbance operations in leased areas can negatively impact special status plant habitat by generating fugitive dust within any ground disturbing activities including increased levels of truck traffic. Fugitive dust can have adverse effects on gas exchange, water budgets, productivity and reproduction of plants (Farmer 1993; Padgett et al. 2007; Sharifi et al. 1997), and can adversely affect pollinators by clogging their respiratory system (Tepedino 2009). The removal and/or disturbance of pollinator habitat may occur during vegetation removal for energy development-related activities. Many special status plants require pollen from other plants in order to successfully reproduce which requires pollinators. Decreased pollinator habitat could result in a reduced seed yield for some special status plants thus reducing the vigor and/or size of the populations. The spread of noxious weeds may also directly and indirectly impact SSPS. Ground disturbance, roads and routes used for energy development and exploration have the possibility to promote nearby weed abundance and dispersal (Flory and Clay 2006; Christen and Matlack 2009). Encroachment of weedy species in SSPS habitat may out-compete native plant species for valuable resources necessary to grow and reproduce.

Direct and indirect impacts to SSPS existing for both Alternatives 2 and 3 do not vary greatly. Alternative 3, does include the deferral of parcel 6755 and 6790 as well as portions of parcels 6768, 6772, 6778. Alternative 3 does include deferral portions of parcel 6790 and part of 6778, containing occupied or suitable proposed threatened plant species habitat or proposed critical habitat. Parcels 6755 and portions of 6768, and 6772 would be deferred under Alternative 3, which would remove all direct and indirect impacts to special status plant species in these parcels or portions of parcels deferred.

However, it is not the BLM's intention to permit surface disturbance in any areas of suitable or occupied threatened, endangered, proposed or candidate plant habitat, critical plant habitat or occupied sensitive plant habitat. All parcels to be leased which contain potential SSPS habitat will require biological surveys every three years in order to determine whether suitable or occupied plant habitat exists. All lands offered for lease are subject to existing federal, state and local laws and regulations and to Exhibit CO-34 to alert lessee of potential habitat for a

threatened, endangered, candidate, or other special status plant or animal. This stipulation clearly states that the BLM may modify, limit, or disapprove development proposals that may result in adverse impacts to special status plants in order to comply with the Endangered Species Act (ESA). The BLM is also required to complete consultation with U.S. Fish and Wildlife Service in accordance with Section 7 of the ESA before approving any development proposals in the vicinity of listed plants or critical plant habitat. Leases containing occupied or potential threatened or endangered plant habitat are subject to Exhibit WR-NSO-08 which prevents surface occupancy within mapped populations of threatened, endangered, candidate or proposed plants. Leases containing occupied sensitive plant habitat are subject to Exhibit WR-NSO-09 which disallows surface occupation within known populations of BLM sensitive plants. If NSO stipulations are applied to areas of know occupied, suitable and potential special status plant habitat, oil and gas development should have no direct effects to special status plant species or their associated habitats. Indirect effects to special status plant species could occur if the population is unknown through development.

Environmental Consequences of Leasing and Development - Cumulative Impacts:
Similar to direct and indirect impacts, cumulative impacts to SSPS for both Alternatives 2 and 3 do not vary greatly. Under Alternative 3 there are seven parcels containing SSPS habitat proposed for leasing. The partial deferrals in parcels 6768, 6772, and 6778 would remove all cumulative impacts to special status plant species within the deferred portions of these parcels.

Cumulative impacts may result from increased habitat fragmentation and establishment and spread of nonnative invasive species that may increase with the development of leased parcels. Fragmented plant and pollinator habitat could reduce the potential for special status plant species to increase their habitat and could increase the required flight distance for pollinator species in order to pollinate special status plants. An increased flight distance could mean that some SSPS do not receive pollination thus not set seed. Cumulatively weedy species may out-compete SSPS or establish in suitable and potential SSPS habitat which could decrease native plant population sizes or prevent native colonization by slowing or ceasing seral progression.

NSO stipulations should prevent most cumulative effects to SSPS however; development of land lying outside of NSO areas could lead to the aforementioned cumulative impacts.

3.4.2.6 Upland Vegetation

Affected Environment: The range sites and acres potentially affected by the lease sale are shown in Table 14, which includes BLM, State, and private lands.

Parcel 6760 partially overlays an area identified as remnant vegetation association (RVA). RVAs are unique due to the integrity and intact nature of the original vegetation community. Surface occupation is not allowed in these areas and would require special reclamation actions if an exception were granted to authorize disturbance.

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."

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 parcels in the proposed lease area are currently meeting land health standards and would be classified at mid to late-seral. There are some small scattered areas, especially in the lower elevation areas around parcels 6755, 6756, 6758, and 6814 that may be classified as 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 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. Reclamation of disturbances in these sites would require additional efforts to achieve successful revegetation.

Environmental Consequences of Leasing and Development - Direct and Indirect Impacts: The act of leasing proposed parcels would have no impact on vegetation. Actual impacts of development activities cannot be predicted at the leasing stage. The impacts would be similar but effects would vary by plant community. Plant community types and amounts are shown in Table 14 . Where deferrals occur there would be no additional disturbance to vegetation. Generally oil and gas development involves complete removal of vegetation and at times re-contouring of the landscape. Vegetation removal would be commensurate with the level of oil and gas development in a given area. The type of ground-disturbing activity associated with oil and gas development results in increased susceptibility to adverse impacts such as weed infestations and erosion (See Soil Resources and Invasive, Non-Native Species sections).

Table 14: Range Sites

Range Site	BLM	Private	State	Total
Alkaline Slopes	840.0		3.0	842.9
Alkaline Slopes/None	453.2			453.2
Aspen Woodlands	213.0	580.0	0.1	793.0
Brushy Loam	1126.0	149.0	568.0	1843.0
Brushy Loam/Dry Exposure	2428.4		809.4	3237.7
Brushy Loam/Loamy Slopes	518.8		27.4	546.1
Clayey Foothills	761.3			761.3
Clayey Saltdesert	2001.1			2001.1
Clayey Slopes	419.9		0.4	420.3
Clayey Saltdesert/Saltdesert breaks	26.4			26.4
Deep Clay Loam	80.8		12.5	93.3
Deep Loam	1.4		20.4	21.8
Douglas-Fir woodland	4197.0		5.2	4202.0
Dry Exposure	488.0	32.0	26.0	545.0
Foothill Juniper	1099.6		10.7	1110.3
Foothill Swale	185.0			185.0
Loamy Saltdesert	170.0		3.7	174.0

Range Site	BLM	Private	State	Total
Loamy Slopes/Mountain Loam	1478.0	1402.0	1406.0	4286.0
Mountain Loam/Loamy Slopes	1582.0		30.0	1611.0
Mountain Swale	26.9	39.4	19.1	85.4
None (No Range Site Associated)	10678.6		554.9	11233.5
Pinyon Juniper woodland	3468.0		0.1	3468.0
PJ woodland/Rolling Loam	146.9			146.9
PJ Woodlands/Clayey Slopes	4837.8		310.6	5148.3
River bottom/floodplain	11.4		1.0	13.0
Rolling Loam	1199.3		76.7	1275.9
Salt Meadow	48.0			48.0
Saltdesert Breaks	222.0		2.1	224.0
Sandy Foothills	100.1		16.0	116.1
Sandy Juniper	125.1			125.1
Sandy Saltdesert	76.5		5.6	82.0
Semidesert Clay Loam	485.2		45.7	530.8
Semidesert Gravelly Loam	140.1		8.9	149.0
Semidesert Loam	447.6		34.8	482.4
Semidesert Shallow Loam	20.8			20.8
Silty Saltdesert	22.1		0.1	22.1
Spruce-Fir woodland	1229.3	3.6	180.6	1413.5
Stony Foothills	1781.6	38.2	26.3	1846.1
Stony Foothills/Rolling Loam	17.7			17.7
Total	**43154.5**	**2244.1**	**4205.0**	**49602.1**

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.

Direct impacts of vegetation removal include short-term loss of vegetation and the modification of plant community structure, species composition, and a short-term reduction of basal and aerial vegetative cover. Removal of vegetation also results in increased soil exposure, short-term loss of wildlife habitat, reduced plant diversity, and loss of livestock forage. Indirect impacts include the increased potential for non-native/noxious plant establishment and introduction, accelerated wind and water erosion, changes in water runoff due to road/facility construction, soil impacts that affect plant growth (soil erosion or siltation), shifts in species composition and/or changes in vegetative density away from desirable conditions, and changes in visual aesthetics. Depending on the site, reestablishment of woody species may not begin for more than 20 years. Environmental conditions could prevent initial reseeding efforts from being successful, resulting in an extended recovery period for native plant communities. Incorrect placement of excavated soil could result in a substrate that is not capable of supporting a healthy native plant community.

Management direction in the White River ROD/RMP allows for site-specific development of COAs at the APD stage including facility relocations and measures that provide for rapid stabilization and restoration. COAs are developed at the approval stage and are followed throughout the life and final abandonment of each 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.

Under Alternative 2 a total 48,554.5 acres of federal mineral estate in 33 parcels would be leased. Where development occurs, impacts to vegetation would be substantially as described above. On-going development would continue to occur with affects to vegetation from construction of well pads, pipelines, roads, and other oil and gas development related infrastructure.

Under Alternative 3: The BLM would offer 21 parcels totaling 17,431.45 acres for lease and defer 31,145.11 acres from the sale. Those parcels that are deferred from the June 2014 lease sale offering would not be subject to development related impacts associated with extraction of oil and gas resources until possibly leased in the future. However, unless they are permanently withdrawn from leasing they could be made available for future lease sales at which time they would likely be subject to potential development related impacts. On-going development infrastructure would continue to occur on adjacent leased lands with affects to vegetation as described above. Parcels that are not deferred from the June 2014 lease sale would potentially be impacted in the manner described above should the lease holder decide to develop the lease(s).

Environmental Consequences of Leasing and Development - Cumulative Impacts: 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.

3.4.2.7 Wetlands and Riparian Zones

Affected Environment: A number of the proposed lease parcels encompass perennial or intermittent systems that support riparian communities. These systems are listed in Table 15.

Table 15: Parcels Directly Supporting Riparian Communities for Alternative 2

Parcel Number	Approx. length of channel involving federal mineral estate (miles)		Channel Name
	BLM	Split estate	
6753, 6754, 6758, 6790	1.8 in 11 parcels		White River
6814	0.25		Deep Channel Creek
6766	0.25	0.4	Upper East Douglas Creek
6765, 6779, 6833	2.3		Brush Creek
6779, 6833	0.9		Bear Park Creek
6777	0.6	1.3	Trail Canyon
6768, 6771	3.8	1.9	Soldier Creek
6770, 6771, 6772	5.8	0.3	Lake Creek
6815	1.7		Black Sulphur Creek

6753	0.25		Crooked Wash
Total	**17.7**	**3.9**	

The majority of these reach lengths (e.g., Soldier and Lake Creeks) represent very narrow, confined, and steep gradient headwater streams on BLM and CPW-administered lands (e.g., 6768, 6771, 6772).

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

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

The East Douglas Area of Critical Environmental Concern (ACEC) was established through the 1997 White River RMP to highlight that portion of the East Douglas Creek watershed that encompasses most of the WRFO's native cutthroat trout habitat and, by association, imparts equal attention to its riparian resources. ACEC designation was intended to provide a means to "coordinate all land uses in a manner compatible with or complementary to stream habitat recovery." Fluid mineral development that may impair riparian systems encompassed by the East Douglas Creek as well as the Black Sulphur Creek fishery (a total of 17.4 of 21.6 miles of riparian habitats associated with Alternative 2) are subject to a CSU stipulation that identifies important constituent elements of aquatic habitat that are considered by BLM during NEPA analysis and provides the basis to formulate and apply COAs that, when warranted, address anticipated risks or unanticipated consequences of development that takes place in these watersheds (e.g., those risking adverse change in stream morphology, including vegetation-derived stability and shading). The measure allows preventative or remedial action to be specifically tailored and scaled across the watershed or contributing drainage area commensurate with site specific analysis and a reasoned evaluation of risk or detected effects.

Similarly, CSU stipulations applicable to the White River ACEC (100-year floodplain of White River) are intended to protect the integrity of unique plant communities (cottonwood gallery forests) and channel processes that sustain the long-term availability of cottonwood as bald eagle nest, roost, and perch substrate.

Besides more universal BLM riparian protection policies and an RMP prescription that requires avoidance of priority riparian habitat, management attention offered by these CSU stipulations extend to 90% of the riparian communities encompassed by the proposed lease parcels.

The same management measures would be applied to riparian resources located within offered lease parcels as discussed in Alternative 2 and it would be assumed the consequences of those measures would be identical in nature, though smaller in scope. Deferrals recommended could intentionally or coincidentally remove lands that support riparian communities from leasing consideration. Riparian reaches removed from this round of leasing would, in many cases, be substantial (i.e., 9 miles or reduced about 40% from Alternative 2, see Table 16). There would be no further development authorized until these lands were again offered in future sales, in which case, land use decisions and management measures would conform to the most recent land use plan.

Environmental Consequences of Leasing and Development - Cumulative Impacts: The actual leasing of the parcels would not contribute to cumulative sediment effects generated by existing disturbances. The WRFO is not aware of any federally administered oil and gas related infrastructure that contributes sediment or other contaminants at levels that would risk destabilizing channel features or substantially degrading stream conditions.

As conditioned, future development is not expected to contribute measurably to cumulative watershed sediment levels and would not be expected to elevate sediment discharge to levels that would adversely influence riparian character. Avoidance of riparian habitats, reclamation strategies, and State and federally-imposed sediment and storm-control measures would provide effective means of controlling excess sediment contributions to those systems that support riparian communities.

Table 16: Parcels Directly Supporting Riparian Communities for Alternative 3

Parcel Number	Approx. length of channel involving federal mineral estate (miles)		Reductions in riparian involvement due to deferrals (miles)	Channel Name
	BLM	Split estate	Federal estate	
6753*, 6754*	0	--	1.8 in 11 parcels	White River
6814	0.25	--	0	Deep Channel Creek
6766*	0	0.4	0.25	Upper East Douglas Creek
6765*,6779*,6833*	0	--	2.3	Brush Creek
6779*, 6833*	0	--	0.9	Bear Park Creek
6777*	0	1.3	0.6	Trail Canyon
6768, 6771	3.0	1.4	1.3	Soldier Creek
6770, 6771, 6772	5.7	0.3	0.1	Lake Creek
6815*	0	--	1.7	Black Sulphur Creek
6753	0	--	0.3	Crooked Wash
Total	**9.0**	**3.4****	**9.3**	

** These parcels would be deferred form leasing under Alternative 3.*
*** Total does not include deferred reaches*

Although inevitable that development would generate sediment and, particularly in the case of access roads, add cumulatively to sediment delivery to the listed streams , elevated sediment levels would be expected to remain minor and not exceed the transport capacity of the systems (i.e., at which point deleterious channel adjustments occur). It is expected that sediments originating from most surface disturbance that has been subject final (pipelines) and interim (pads) would return to or be reduced from pre-project levels within two years of pipeline installation such that any cumulative increase attributable to these features would be resolved.

3.4.2.8 Aquatic Wildlife

Affected Environment: The composition of native aquatic communities in the WRFO is heavily represented by special status species. Discussions pertaining to aquatic wildlife in Special Status Animal Species adequately represent the few remaining species composing this group (e.g., chorus frog, speckled dace, mottled sculpin). Environmental Consequences of Leasing and Development - Direct and Indirect Impacts: There are no impacts associated with the leasing these parcels. See discussions in the Special Status Animal Species and Wetland and Riparian Zones sections concerning impacts that may be attributable to lease development. 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. 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.

Table 17 lists those lease parcels that encompass aquatic habitats occupied by fish.

Environmental Consequences of Leasing and Development - Direct and Indirect Impacts: There are no impacts associated with the leasing these parcels. See discussions in the Special Status Animal Species and Wetland and Riparian Zones sections concerning impacts that may be attributable to lease development. 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. 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.

Table 17: Parcels Directly Supporting Aquatic Habitat as a Fishery for Alternative 2

Parcel Number	Approx. length of channel involving federal mineral estate (miles)	Channel Name
6753, 6754, 6758, 6790	1.8 in 11 parcels	White River
6765	1.3	Brush Creek
6779	0.6	Bear Park Creek
6777	Private land, unknown	Trail Canyon
6771	1.4	Soldier Creek
6770, 6771	2.2	Lake Creek
6815	1.7	Black Sulphur Creek
6753	0.25	Crooked Wash
Total	**9.3**	

Table 18: Parcels Directly Supporting Aquatic Habitat as a Fishery for Alternative 3

Parcel Number	Approx. length of channel involving federal mineral estate (miles)	Reductions in riparian involvement due to deferrals (miles)	Channel Name
	BLM	**Federal estate**	
6753*, 6754*, 6758* 6790*	0	1.8 in 11 parcels	White River
6765*	0	1.3	Brush Creek
3779*	0	0.6	Bear Park Creek
6777	?	?	Trail Canyon
6771	1.4	0	Soldier Creek
6770, 6771	2.2	0	Lake Creek
6815*	0	1.7	Black Sulphur Creek
6753*	0	0.3	Crooked Wash
Total	**3.6****	**5.7**	

* *These parcels would be deferred form leasing under Alternative 3.*
*** Total does not include deferred reaches*

Under Alternative 3, the same management measures would be applied to aquatic habitats located within offered lease parcels as discussed in Alternative 2 and it would be assumed the consequences of those measures would be identical in nature, though smaller in scope. Deferrals recommended in this alternative would intentionally or coincidentally remove lands that support aquatic communities from leasing consideration. Riparian reaches removed from this round of leasing would, in many cases, be substantial (i.e., 5.7 miles or reduced about 60% from Alternative 1, see Table 18). There would be no further development authorized until these lands were again offered in future sales, in which case, land use decisions and management measures would conform to the most recent land use plan.

Environmental Consequences of Leasing and Development - Cumulative Impacts: See discussion in the Special Status Animal and Wetland and Riparian Zones sections.

3.4.2.9 Terrestrial Wildlife

Affected Environment: The area encompassing the proposed lease parcels includes the full array of big game (deer, elk) seasonal ranges. Many of the lease parcel groupings serve as severe winter range, including lower Piceance (e.g., 6760 and 6761), Deep Channel (e.g., 6814, 6817, 6818), Wolf Creek (e.g., 6753-6759), and those along the Utah border (e.g., 6778, 6790). These ranges fulfill their most important function during the later winter and early spring months prior to widespread plant emergence. By definition, these ranges harbor the majority of the area's big game populations under the most severe winter weather conditions when big game energetic demands are highest and access to nutritional forage lowest. Winter concentration areas, which by definition support double the animal density of surrounding ranges, are often closely associated with these severe winter ranges (especially Wolf Creek and Deep Channel groups). Those lease parcel groupings composed of aspen/mixed shrub habitats along the White-Colorado River divide and East Douglas Creek (e.g., 6765-6773) and higher elevation (>7400 ft) areas of the Deep Channel group serve predominantly as big game summer range (including the rearing of young) that are occupied from May through October. Localized summer use by both species is often associated with the White River or larger perennial stream systems (e.g., Black Sulphur Creek). Small numbers of pronghorn persist in the lower Wolf Creek drainage throughout the year.

Virtually all the proposed lease parcels either contain or lie adjacent to habitat that is capable of supporting raptor nesting functions. The most common breeding raptors in the WRFO's woodland types are overwhelmingly Cooper's hawk and long-eared owl. Red-tailed hawk and golden eagle are common to uncommon associates of widely available rock outcrops and cliff series.

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

Environmental Consequences of Leasing and Development - Direct and Indirect Impacts: Big game habitat directly modified or removed from production would remain proportionately small on developed leases (1-5 percent). Once reclaimed, the functional value of interspersed early seral sites would ultimately depend on reclamation objectives being achieved and the utility of those sites with respect to animal use/avoidance patterns. Reclaimed acreage has potential to serve important nutritional roles for big game, including: accumulation of body fat reserves in late summer and fall, dietary diversification, winter recovery, and elevated nutritional planes for late gestation in late winter and early spring, and lactation in late spring and summer.

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 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.

The distance at which big game consistently react (e.g., flight, avoidance, elevated alert) to human and vehicular activity has been variously reported from a minimum of about 100 meters to 800 meters and more depending on the species, cover, and the nature of the disturbance. Avoidance of human activity, regardless of form, has important ramifications on big game energetics (e.g., avoidance movements, heightened state of alert) and nutrition (e.g., reduced time foraging and access to available forage, displacement from preferred foraging sites that, in turn, have consequences on fitness and performance (e.g., survival, reproduction) at the individual and population level. As effective forage availability becomes increasingly constrained by removal or avoidance response, and animal use is incrementally relegated to smaller proportions of more optimal seasonal range, it is inevitable that the capacity of the range to support former numbers of animals would deteriorate, and eventually increase the probability of density-dependent adjustments in animal abundance. Wintering mule deer populations subject to the influences of natural gas development in Wyoming declined 30 percent while unaffected portions of the herd declined 10 percent (Sawyer 2009 final report).

Timing limitations would continue to be applied to important summer and winter (i.e., severe winter and critical winter) ranges to reduce the more severe vectors of disturbance on big game when they are subject to the most challenging environmental (severe cold, heavy snowpack, reduced forage availability) and physiological (late gestation, lactation) challenges.

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. Recent investigation of deer response to natural gas development in the Piceance Basin offers MPA-specific insights.

Lendrum et al. (2013) found deer avoidance of infrastructure during spring migration most pronounced in one of their two more heavily developed study sites (4 pads/mi^2 on transition range) where the odds of selecting areas nearer roads decreased about 4.5 percent each 100 meters closer to a road. Average road avoidance inferred from data in 3 of 4 study areas (used versus random point locations) roughly suggest that deer tended to avoid roads in more heavily developed areas by a distance of 143 meters and in least developed areas by 118-127 meters. Based on the results of Lendrum et al. (2013), there may be little to indicate that change in migration movements in more heavily developed portions of Piceance Basin represent energy expenditures have strong deleterious consequence on a dam's body condition or subsequent fetal development and survival.

Raptors as a group and eagles in particular are birds afforded protection under the Migratory Bird Treaty Act and Bald and Golden Eagle Protection Act that traditionally receive pronounced management attention due to their relatively low abundance (high trophic level) and reproductive potential. Raptors are considered to be among those birds most susceptible to reproductive failure caused by human activities.

Most-current raptor protection guidelines would be incorporated into the design and operation of above-ground electric and fluid storage facilities. These measures would strictly minimize the number of raptors exposed to electrocution and line-strike, and virtually preclude incidents of drowning and contact with potentially toxic fluids.

Cliff-nesting buteos, falcons, and eagles are not normally subject to actions that adversely alter the nest substrate or character of the surrounding habitat. The most prevalent habitat-related risk attending fluid minerals development in the WRFO would extend primarily to woodland nesting species (i.e., accipiters, owls) where the clearing of pinyon/juniper woodlands can alter nest stand conformation or the character of the surrounding habitat for centuries. Because redevelopment of canopy structure suitable for raptor nesting is prolonged (e.g., 150 plus years), reductions in the suitable habitat base can accumulate rapidly at the landscape level.

A combination of NSO and TL stipulations are applied to functional (i.e., not necessarily active) raptor nest sites. This strategy allows for periodic abandonment and reoccupation of suitable nest stands by breeding pairs and, particularly since redevelopment of suitably mature canopy requires 150 or more years, prevents the progressive “ratcheting-down” of habitat capable of supporting raptor nesting use in the future.

These devices, at a minimum, are intended to prevent disruption of ongoing nest efforts, including development-induced absences of the adult birds sufficient to jeopardize egg or nestling survival from malnourishment, exposure, or predation. These buffers are applied to nest sites discovered during project-specific surveys as COAs. Complementary siting criteria are available to aid in reducing the involvement of habitat better suited for current or future woodland raptor nesting function.

No surface occupancy stipulations are applied as circular buffers to functional nest sites. This measure is intended to maintain the integrity and availability of woodland stands suitable for woodland raptor nesting functions. The RMP-derived siting criteria that allows for facility relocation to reduce diminishment or deterioration of raptor nest habitat help in minimizing long-term adverse modification of woodland or forest canopies that may serve as future nest habitat.

Timing limitation stipulations are applied as circular buffers to distance potentially disruptive activities from ongoing nest efforts sufficient to satisfy the disturbance tolerance of the species. As applied to species that are most commonly encountered in the MPA (i.e., Cooper’s and red-tailed hawks and long-eared owls), the long-established 1/8 mile NSO stipulation and 1/4 mile TL stipulation prescriptions have, in WRFO’s experience, provided lateral separation sufficient to avoid diminished reproduction (e.g., site abandonments, prolonged absence of brooding or incubating birds) and have been effective in maintaining the integrity of identified nest substrate and, where appropriate, the associated woodland stand for subsequent nesting function. However, in practice, it is occasionally necessary to augment these smaller buffers (justified through NEPA analysis) to provide more reliable levels of separation in the case of golden eagles

and prairie falcons. Similarly, nests of raptors that are regarded as having special status (i.e., bald eagle, northern goshawk, peregrine falcon, and ferruginous hawk) are afforded expanded 1/4 mile NSO stipulation and 1/2 mile TL stipulation buffers that have generally been effective in the context of conventional oil and gas development practices. These buffers are considered minimum levels of protection for species of high management concern and generally offer little latitude for inadvertent non-compliance, individual birds especially intolerant of disturbance, or sensitization from cumulative or particularly disruptive episodes. Although these buffer dimensions have tended to provide adequate levels of protection in the past, the more expansive surface disturbance and longer-duration drilling activities associated with modern drilling and completion activities may elevate the potential risk of adverse nest disruption and may occasionally risk violating the provisions of, for example, the Bald and Golden Eagle Protection Act, which prohibits activities that substantially interferes with normal reproductive activities and causes or is likely to cause a loss of productivity. In these cases, too, it may be occasionally necessary to augment these buffers (justified through NEPA analysis). In the specific case of bald eagles, effective lateral separation (i.e., out of line-of-sight or on the opposing side of the SH 64 corridor) between nests and disruptive activities often needs only to position the disturbance on the elevated benches that usually parallel either side of the river.

The WRFO's monitoring efforts (unpublished) suggest that woodland nesting species, primarily Cooper's hawk and long-eared owl, nest in areas that are not presently influenced by mineral development at densities comparable to existing gas fields that support levels of infrastructure similar to those that might be expected within these proposed leases (i.e., 3 pads per section). Although it is recognized that reproductive performance could be reduced under circumstances of concentrated development activity, it would seem unlikely that these effects would impair the long term viability of woodland raptor populations in the MPA.

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 (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 may mask declining population fitness and demographics for long periods of time.

Under Alternative 3, the same management measures would be applied to big game and raptor habitats located within offered lease parcels as discussed in Alternative 2 and it would be assumed the consequences of those measures would be identical in nature. However, the deferrals recommended in this alternative would intentionally or coincidentally remove lands that support those habitats from leasing consideration. The importance of big game and raptor habitat tends to lie in their availability at the landscape level, and the deferred leases do not host habitats that are particularly unique or limited in supply. There would be no further development

authorized until these lands were again offered in future sales, in which case, land use decisions and management measures would conform to the most recent land use plan. The deferred tracts would offer the opportunity for BLM to consider the installation of more contemporary management practices and to adjust land management practices to better address future resource issues that will attend mineral and other land use development.

Environmental Consequences of Leasing and Development - Cumulative Impacts: The most important cumulative aspect of lease development is the accumulation of persistent disturbances and the subsequent indirect loss of habitat utility on big game seasonal ranges. Although impossible to predict, development of these leases would contribute incrementally to ongoing and future forms of human activity across the landscape. In the larger context these cumulative reductions in habitat capacity area expected to be substantial in the Piceance Basin, but much reduced in other portions of the WRFO.

Lease development would involve the clearing of pinyon-juniper woodlands as raptor nest substrate. These losses, given due siting consideration, are likely to remain minor but incremental to ongoing and future mineral developments. In the long term, pinyon/juniper woodlands cleared for development are projected to involve less than 1 percent of the WRFO's woodland base and no more than 2 percent of the base best suited for woodland raptor nesting (i.e., woodlands less than 25 percent slope). The WRFO's monitoring efforts suggest that woodland nesting species (primarily Cooper's hawk and long-eared owl) nest in areas that are not presently influenced by mineral development at densities comparable to existing gas fields (i.e., 3 pads per section). Existing gas fields support levels of infrastructure similar to those that might be expected within these proposed leases. Although it is recognized that reproductive performance could be reduced under circumstances of concentrated development activity, it would seem unlikely that these effects would impair the long term viability of woodland raptor populations in the MPA.

3.4.2.10 Wild Horses

Affected Environment*:* Within the WRFO there are three wild horse use areas: West Douglas Herd Area (WDHA), North Piceance Herd Area (NPHA), and the Piceance-East Douglas Herd Management Area (PEDHMA). In accordance with the 1997 White River ROD and RMP, and the WDHA Amendment wild horses will be managed in the long term only within the PEDHMA. Wild horses are to be managed within the PEDHMA within the range of 135 to 235 wild horses; all wild horses are to be removed from the West Douglas and North Piceance Herd Areas. Currently the BLM estimates the population within wild horse use areas as follows: approximately 300 wild horses in areas within the PEDHMA, and approximately 75 wild horses outside of the PEDHMA (this includes the NPHA as an area outside of the PEDHMA), and approximately 200 wild horses within and outside of the WDHA.

Environmental Consequences of Leasing and Development - Direct and Indirect Impacts: At this time all parcels have been deferred that are located within either the PEDHMA or the NPHA. The deferrals considered would remove lands that support wild horse habitat from leasing consideration. The deferred leases do not host habitat that are unique or limited in supply and is unlikely that future management would alter the ultimate consequence of subsequent

leasing. There would be no development authorized until these public lands were offered in future lease sales, thus the most recent land use plan decisions and management measures would offer BLM the opportunity to adjust land management practices to address future resource concerns that will coincide with future development.

Environmental Consequences of Leasing and Development - Direct and Indirect Impacts: At this time all parcels have been deferred that are located within either the PEDHMA or the NPHA. The deferrals considered would remove lands that support wild horse habitat from leasing consideration. The deferred leases do not host habitat that are unique or limited in supply and is unlikely that future management would alter the ultimate consequence of subsequent leasing. There would be no development authorized until these public lands were offered in future lease sales, thus the most recent land use plan decisions and management measures would offer BLM the opportunity to adjust land management practices to address future resource concerns that will coincide with future development.

Environmental Consequences of Leasing and Development - Cumulative Impacts*:* Historic development of oil and gas and agricultural uses in the region has increased in the demand for water and transferred water rights to consume more of the available water in the area. This trend would likely continue into the future and could accelerate depending on the oil and gas markets. Higher oil and gas prices could accelerate this trend while depressed oil and gas prices could decelerate the trend.

3.4.3 Heritage Resources and Human Environment

3.4.3.1 Cultural Resources

Affected Environment: Human occupation in the WRFO dates back about 12,000 years before present, with the first migrations into the area by Paleoindians. Since that time the area has been occupied by various Native peoples and Euro-American groups. Cultural groups that have occupied or migrated though the area include, but are not limited to, Paleoindians, Archaic hunter-gatherers, Fremont, Ute, Spanish explorers, and a mix of Euro-American miners, ranchers, homesteaders, loggers, and energy developers. These groups have left behind various archaeological manifestations within the lease parcels. Prehistoric site types include habitation areas that contain architectural elements, seasonal-use campsites, artifact scatters, rock art sites, resource procurement sites, and travel ways. Historic site types include areas related to early mining, ranching, and homesteading activities.

The prehistoric and historic cultural context for northwestern Colorado has been described in several recent regional contexts. Metcalf and Reed's (1999) context for the Northern Colorado River Basin is applicable for the prehistoric context and historical contexts include overviews compiled by Frederic J. Athearn (1982) and Michael B. Husband (1984). A historical archaeology context has also been prepared for the state of Colorado by Church and others (2007).

The leasing of federal mineral rights for potential oil and gas exploration and production is considered an undertaking under Section 106 of the National Historic Preservation Act (NHPA). The BLM has the legal responsibility to take into account the effects of its actions on cultural

resources located on federal land or affected by federal undertakings. Because the leasing of the oil and gas parcels is not in itself a ground disturbing activity, the Section 106 responsibilities will be performed at the APD development stage. The environmental consequences of future development are largely unknown at this time because the majority of the lease parcels have not been inventoried. We do not know the full extent of cultural resources that may exist within the lease parcels.

BLM Manual 8100 Series, the Colorado State Protocol and BLM Colorado Handbook of Guidelines and Procedures for Identification, Evaluation, and Mitigation of Cultural Resources provide guidance on how to accomplish Section 106 requirements with the appropriate cultural resource standards. Section 106 of NHPA requires federal agencies to: 1) inventory cultural resources to be affected by federal undertakings, 2) evaluate the importance of cultural resources by determining their eligibility to the National Register of Historic Places (National Register), and 3) consult with the federal and state preservation agencies regarding inventory results, National Register eligibility determinations, and proposed methods to avoid or mitigate impacts to eligible sites. In those cases where site avoidance is impractical or undesirable, the BLM will implement the appropriate mitigation measures after consultation with State Historic Preservation Officer (SHPO) and Tribal authorities.

Thirty-three parcels comprising 48,554.5 acres within the White River Field Office (WRFO) were nominated for the June 2014 Competitive Oil and Gas Lease Sale. The parcels are located within varying topographic and environmental zones. In July 2013 BLM archaeologist Michael Wolfe conducted a literature review of records in the BLM-WRFO and database, and reviewed relevant information in the Compass database maintained by the Colorado Office of Archaeology and Historic Preservation. The area evaluated for cultural resources during the Class I (records search) for this lease sale included all lands within a nominated lease parcel, including those lease parcels that are located on private and state lands. A complete Class III Cultural Resource Inventory (100% pedestrian survey) of the proposed lease parcels has not been completed. Of the 48,554.5 acres nominated in these lease sales, only approximately 4 percent within those leases have been inventoried at a Class III level. The results of the assessment are summarized below.

Thirty-three parcels have been proposed for the June 2014 Competitive Oil and Gas Lease Sale within lands administered by the WRFO, which for analysis purposes can be clumped into five groups: the west group, the Skinner Ridge/Sulfur Creek group, the Danforth Hills group, the Pinyon Ridge/Wolf Creek group, and the Yellow Creek/Piceance group.

The west group (parcels 6778, 6790, and 6813) occurs in 6th P.M. T 1N R 104W, T 1N R 103W, and T 4N R 102W, in Rio Blanco County, west and south of the town of Rangely, near the western boundary of the WRFO resource area (see Map 4). In total, the parcels encompass approximately 1,796 acres. According to available data, these parcels contain approximately 55 acres of previous Class III level inventoried lands (approximately 4 percent of the total acres within this group of parcels). A prehistoric multi-component site and a lithic scatter are present. Neither site is evaluated as eligible to the National Register. The potential for undocumented cultural resources is unknown due to the lack of inventory. Any undiscovered cultural resources have the potential to be recommended eligible for the National Register. Under Alternative 3, parcel 6790 would be deferred as well as portions of 6778 and 6813..

The Skinner Creek/Sulfur Creek group is located on the north slopes of the Roan Plateau and north of the drainage divide that separates Douglas Creek and Piceance Creek to the north from the Brush Creek and Clear Creek drainages of the Colorado River to the south. The Skinner Ridge/Sulfur Creek group (parcels 6765 through 6777, 6779, 6812, 6815, and 6833) occurs in 6th P.M. T 4S R 101W, T 5S R 101W, T 4S R 100W, T 4S R 99W, T 5S 99W, T 3S R 99W, in Rio Blanco and Garfield Counties (see Map 5). They are located in a region of uncertain potential for cultural resources evaluated as eligible to the NRHP. Much of the land is privately owned surface, much of the land is very steep, and all but one parcel are over 7,500 feet elevation. According to available data, these parcels contain approximately 767 acres of inventoried lands. This represents previous survey of only approximately 2.5 percent of the proposed lease parcels in this group. Four of the parcels have had no previous survey. The previous Class III inventory has identified six Isolated Finds, one not eligible historic site, and one not eligible prehistoric lithic scatter within the proposed lease parcels. Under Alternative 3 parcels 6774, 6775, 6779, 6815, and 6833 would be deferred as well as portions of 6765, 6768, 6769, 6772, 6773, 6776, and 6777.

This lack of previous survey within the proposed lease Skinner Creek/Sulfur Creek group of parcels is a result of the lack of previous development in the area, which would have spurred Class III inventory. Therefore, it is unknown what cultural resources exist within these parcels. In order to provide some information of what cultural resources may be present in the Skinner Creek/Sulfur Creek group of parcels, the literature review looked at the surrounding vicinity. A recent large 35,063 acre block survey draft report (Conner et al 2013) performed for a proposed 3-D seismic exploration project located just to the east of the Skinner Ridge/Sulfur Creek group of parcels, identified 49 sites. The sites include prehistoric lithic scatters, prehistoric open camps (some with architecture), and historic open camps, trails, and dugout cabins. Of the 49 sites, 29 are evaluated as eligible or potentially eligible to the National Register. The entire surveyed area is proposed as a historical cultural landscape (the Clear Creek Watershed Trail System) based on the network of trails and associated camps. Some of the sites include Ute affiliated camps with structures. Some of these historic trails also are affiliated with the Dominguez-Escalante expedition of 1776, the first known evidence of historic Spanish exploration in the region. The preliminary results of this draft survey report, suggest the potential for similar cultural resources evaluated as eligible to the National Register may be located within the Skinner Ridge/Sulfur Creek group of parcels, an area of similar topography and environment.

The Pinyon Ridge/Wolf Creek group occurs along the White River between the towns of Meeker and Rangely, Colorado and includes parcels 6753, 6754, 6755, 6756, 6757, 6758, 6759, and 6764. (See Map 3) It occurs in T 3N R 99W and T 3N R 98W, in Rio Blanco and Moffat Counties. In total the parcels encompass approximately 14,088 acres. According to available data, these parcels contain approximately 1,098 acres of inventoried lands. This represents previous survey of approximately 7.8 percent of the total acreage of this group of proposed parcels. In areas previously inventoried ten Isolated finds, eight eligible or potentially eligible sites, and three not eligible sites were recorded. The eligible or potentially eligible prehistoric sites include two quarries; a multi-component camp, a lithic scatter, and an Archaic open camp. Potentially eligible historic sites include a historic ranch and a historic fence. The estimated site density for sites evaluated as eligible or potentially eligible is approximately one eligible site for every 200 acres surveyed. Under Alternative 3 these parcels would all be deferred from leasing.

The Danforth Hills group (parcels 6814, 6816, 6817, 3836 and 6837) is located at the head of the Strawberry Creek drainage (northwest of Meeker, Colorado) on the border of the WRFO and the Little Snake Field Office boundary. The group of parcels occurs in T 4N R 96W and T3N R96W, in Moffat County (see Map 2). In total the parcels encompass approximately 8,798 acres. According to available data, these parcels contain approximately 36 acres of inventoried lands. This represents previous survey of less than one percent of the total acreage within this group of parcels. Therefore, the potential for undocumented cultural resources is unknown due to the lack of inventory. However, the terrain is extremely rugged which is not generally conducive to aboriginal and historic site locations. Any undiscovered cultural resources have the potential to be recommended eligible for the National Register. The surrounding area does have both prehistoric and historic sites but they tend to be located in flatter terrain and along water courses. Under Alternative 3, Parcel 6817 would be deferred as well as portions of 6814 and 6816.

The Yellow Creek/Piceance group (parcels 6760, 6761 and 6783) is located on the divide between Yellow Creek to the west, and Piceance Creek to the east. The group of parcels occurs in T 1N R 97W and T 1S R 97W, in Rio Blanco County (see Map 6). In total the parcels encompass approximately 1,578 acres. According to available data, these parcels contain approximately 183 acres of lands Class III inventoried of reliable quality. This represents previous survey of approximately 12 percent of the total acreage within the parcels. Two not eligible prehistoric lithic scatters are present within parcel 6783. The lack of survey within the parcels is a reflection of the lack of development that has occurred in the parcels. Much of the nearby area has been intensively surveyed and many open camps and architectural sites have been documented. Many of these are evaluated as eligible or potentially eligible to the NRHP. It is expected that new, similar archaeological sites will be found at the development stage within these parcels. Some of these sites may have Ute affiliated standing wickiup components. Based on the data for adjacent areas, the potential for similar undocumented cultural resources evaluated as eligible to be located within the Yellow Creek/Piceance group (parcels 6760, 6761 and 6783) is considered high. Alternative 2 and 3 are the same for the Yellow Creek/Piceance group.

Environmental Consequences of Leasing and Development - Direct and Indirect Impacts: The act of leasing oil and gas parcels has no direct potential for surface disturbance, and no effect to any known properties is anticipated from this action. Exploration and development activities that might be proposed as a result of leasing include those which could physically disturb cultural resource sites (e.g., building well pads, access roads, installation of pipelines, etc.). The size of well pads would depend on the number of wells and the type of drilling that is being done. Access roads, pipelines and other infrastructure would be developed during both exploration and development activities.

The BLM is required by statute and regulation to ensure that BLM initiated or BLM 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

(NHPA). All lands offered for lease are subject to existing federal, state and local laws and regulations and to Exhibit CO-39 to protect cultural resources. The WRFO requires a minimum of at least a 40-acre inventory block around proposed well 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 listing in the National Register of Historic Places (NRHP). Proposed construction or operation activities associated with development of these lease parcels would be relocated to avoid potentially eligible sites by at least 100 meters, or that 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 would consider the potential of the proposed activity to affect the site type(s) present and the NRHP eligibility determinations of each site potentially affected to formulate mitigation measures. Where resource conflicts are discovered, mitigation would 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 activity does not affect potentially-Eligible sites. Mitigation measures would be developed during the NEPA review of individual ground disturbing activities.

Alternative 1 would lease no parcels. Alternative 2 proposes to lease 33 parcels comprising 48,554.5 acres. Alternative 3 proposes to lease 21 parcels comprising 17,431.45 acres. Because all alternatives (Alternatives 1, 2 and 3) of the proposed lease sale do not involve ground disturbance, the proposed undertaking will have no new effect on historic properties. Any future development of parcels that are purchased as a result of the lease sale will be subject to additional Section 106 compliance, including identification, effects assessment, consultation, and if necessary, resolution of adverse effects

Environmental Consequences of Leasing and Development - Cumulative Impacts: The cumulative impacts to cultural resources are broad and include impacts within the project area, adjacent to the project area, and within the overall viewshed of WRFO administered land. Oil and gas have been extracted on the BLM-WRFO for over 80 years. This activity has created a surface disturbance including well pads, pipelines, facilities, and access roads. This infrastructure has the potential to detract from the integrity of cultural resources directly through physical disturbance or indirectly through the degradation of the historical environmental setting and the prehistoric cultural landscape. The increased utilization of the area also increases the chance of illegal collection of cultural material. Alternatively, the development of the area has resulted in a large amount of cultural resource studies. The information and data gained from these studies would never have been obtained without the presence of energy development. Alternatives 2 and 3 differ in the amount of acres leased. Alternative 3 would have less potential impacts to cultural resources than Alternative 2 and more than Alternative 1. Without additional cultural inventory information it is not possible to further distinguish the differences in cumulative effects of potential leasing and development between Alternatives 2 and 3.

3.4.3.2 Hazardous or Solid Wastes

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

Environmental Consequences of Leasing and Development - Direct and Indirect Impacts: Oil and Gas exploration and development proposals provide a list of all solid and potentially hazardous wastes to be used, stored, transported, and disposed. Prior to authorization of site specific proposals, 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.

Hazardous materials and wastes could be generated as a by-product of oil and gas well development. However, the oil and natural gas exploration and production exemption applies to drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil, natural gas, or geothermal energy. Although these materials are not designated as hazardous wastes they would still be classified as solid wastes. Potential impacts will be analyzed in subsequent environmental analysis.

Oils and additives are used during well development (including completion), and well debris is produced during the process. Additives contained in mud systems used during drilling are often kept in sacks or drums at the sites.

Management of hazardous materials, substances, and waste (including storage, transportation, and spills) would be conducted in compliance with 29 CFR 1910 (Occupational Safety and Health Standards), 49 CFR 100-185 (Pipeline and Hazardous Materials Safety Administration, Department of Transportation), 40 CFR 100-400 (Protection of the Environment, U.S. Environmental Protection Agency), Comprehensive Environmental Response Compensation and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), Toxic Substances Control Act, CWA, and other federal and state regulations and policies regarding hazardous materials management. In addition, CERCLA and RCRA exemptions could apply to waste by-products of oil well development and these waste streams would be managed accordingly.

Oil and gas operations will, at a minimum, comply with applicable Onshore Orders, the Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development "The Gold Book" (BLM 2007), Notice to Lessees and Operators of Onshore Federal and Indian Oil and Gas Leases (NTL-3A), and applicable COGCC rules . In addition, management of waste in oil and gas operations will be managed in accordance with all Federal, State, and local regulations.

Environmental Consequences of Leasing and Development - Cumulative Impacts: Oil and gas exploration and development throughout the area would have similar impacts regardless of land ownership. Developments on private and state lands are administered under COGCC regulations and hazardous materials use on these locations would be the same as those on the oil and gas leases being offered. Beyond the impacts associated with oil and gas development installation of powerlines, pipelines, and other commercial activities have the potential to use, store, transport, and dispose of solid and hazardous waste as a part of those development.

3.4.3.3 Lands with wilderness characteristics

Affected Environment: In accordance of Section 201 of the FLPMA, which requires the Secretary of the Interior to "prepare and maintain on a continuing basis an inventory of all public

lands and their resource and other values," and the BLM Land Use Planning Handbook, the WRFO has identified and completed an assessment of BLM-managed lands with wilderness characteristics outside of existing Wilderness Study Areas (WSAs). The process entailed the identification of wilderness inventory units (referred to as lands with wilderness characteristics units), an inventory of roads and wilderness character, and a determination of whether or not the area meets the overall criteria for wilderness characteristics (naturalness, outstanding opportunities for solitude, and primitive and unconfined types of recreation). BLM Manual 6310 (Conducting Wilderness Characteristics Inventory on BLM Lands) provides the guidance for the wilderness characteristic inventory process. The WRFO has determined that there are 30 units that contain wilderness characteristics with a total combined acreage of 301,900 acres. Of the 21 parcels nominated for lease under Alternative 3, there is no overlap with any of the 30 lands with wilderness characteristics units. Of the 33 parcels nominated for lease under Alternative 2, all or portions of 17 parcels overlap with the boundaries of 8 lands with wilderness characteristics units for a total of approximately 16,100 acres of overlap. The lands with wilderness characteristics units and the proposed lease parcels that overlap under Alternative 2 are described in detail below.

Lands with wilderness characteristics unit 1-Pike Ridge (14,500 acres) is located near Douglas Pass along the southern boundary of the BLM's White River Resource Area east of State Highway 139. The unit elevation varies between 6,300 feet and 9,000 feet and lies in both Garfield and Rio Blanco Counties. Extensive dense conifer forests mixed with aspen grooves combine with high ridges and low lying draws to provide outstanding opportunities for solitude throughout unit 1. Hiking, hunting, or horseback riding into the area provides endless opportunities to isolate oneself from human signs in a deep valley or high on a ridge while enjoying views of a sweeping landscape. Within this unit's boundaries, parcel 6769 overlaps with approximately 240 acres, parcel 6773 overlaps with approximately 1,080 acres, parcel 6779 overlaps with approximately 2,320 acres, parcel 6766 overlaps with approximately 1,080 acres, and parcel 6833 overlaps with approximately 440 acres. All of the overlap is located in the most southern portion of the unit along the top of Pike Ridge except parcel 6773 which is located on the northeast portion of the unit. There is a total overlap of approximately 5,160 acres of unit 1-Pike Ridge (14,500 acres) with the above six listed proposed lease parcels.

Lands with wilderness characteristics unit 3-Brushy Point (11,500 acres) is located approximately 25 miles south of Rangely, CO and is a large part of the upper western portion of the East Douglas Creek drainage and has elevations that vary from 6,500 in East Douglas Creek to over 8,500 feet along the dominant ridge top. Outstanding opportunities for solitude abound in unit 3 with high ridges and deep valleys throughout. Hunting appeared to be the most common type of primitive recreation in this unit. This area also offered outstanding hiking and camping opportunities. Within this unit's boundaries, parcel 6776 overlaps with approximately 1,600 acres and parcel 6777 overlaps with approximately 880 acres for a combined total of 2,480 acres of overlap on the southwest side of this unit.

Lands with wilderness characteristics unit 10-Shavetail Wash (15,200 acres) is located approximately 10 miles west of Rangely, CO and just south of the White River with Shavetail Wash being the dominant geographic feature. Elevations vary in this unit from 5,300 to 6,200 feet. It is a typical high desert landscape comprised of sagebrush and scattered pinyon- juniper stands. Due to its highly variable topography, the unit has excellent opportunities for solitude.

Many signs of big game were seen in the higher elevations of the unit evidencing prime hunting prospects. The area, though its topography is highly variable, offers excellent hiking and horseback riding opportunities. Parcel 6813 overlaps with approximately 80 acres of this unit in the most northeast portion of this unit.

Lands with wilderness characteristics unit 19-North Colorow (10,900 acres) is located approximately 20 miles northwest of Meeker, CO and northeast of RBC Road 71 (Indian Valley) with elevations between 6,000 and 7,700 feet. The topography includes many drainages and ridges that provide natural separation from other regions in the unit and seclusion from any signs of human influence. The area had abundant signs of big game including deer and elk, suggesting outstanding opportunities for hunting. The area is lacking vegetation in some areas and this terrain is not overly difficult to traverse by either foot or horseback. The area has small sandstone cliffs that are very scenic and provide excellent scenic landscape photography opportunities. Parcel 6814 overlaps with approximately 190 acres in the northeast area of this unit.

Lands with wilderness characteristics unit 21-Coal Ridge (13,100 acres) is located approximately 18 miles east of Rangely, CO and just north of SH 64 with elevations that vary between 5,500 and 6,100 feet. The landscape morphology is dominated by Coal Ridge, an east/west trending linear mountain of tilted rock beds. Upper slopes are covered in pinyon juniper; lower elevations are dominated by sage, greasewood, and mixed grasses. High, forested uplands offer a sense of remoteness and seclusion. Unique ridge topography serves as a buffer from outside civilization. The high relief and unique ridge topography provide an interesting and visually appealing environment for exploring, hiking, and camping. Parcels 6758 and 6759 and portions of parcel 6757 overlap with unit 21 for a combined total of approximately 3,600 acres.

Lands with wilderness characteristics unit 24-Pinto Gulch (5,400 acres) is located in south central Moffat County with elevations between 6,300 and 7,800 feet. Approximately 400 acres of this unit are located in the BLM-Little Snake Field Office. Solitude can be found in the Pinto Gulch drainages that visually separate the unit. This unit provides ample opportunities for activities that provide dispersed, undeveloped primitive recreation opportunities such as hiking, backpacking, hunting, horseback riding, photography, bird watching, and sightseeing. Parcels 6836, 6837, and 6817 overlap with a combined total of approximately 4,050 acres in this unit, which is the majority of this unit.

Lands with wilderness characteristics unit 25-Lower Wolf Creek (11,600 acres) is located in Moffat County, northeast of Massadona, CO and is directly accessible from SH 40 and BLM Road 1506. Elevation in this unit varies between 5,500 and 5,900 feet. Local topographic relief provides a sense of isolation. There are outstanding opportunities for hiking, hunting, camping, and wildlife observation in this remote area. Parcel 6757 and parcel 6755 overlap with approximately 140 acres in the southeast portion of this unit.

Lands with wilderness characteristics unit 30-Banta Ridge is located approximately 10 miles west of Rangely, CO near the Utah border with elevations between 5,200 and 6,400 feet. Banta Ridge is the primary geographic feature within the unit. The unit provides ample opportunities for a variety of primitive recreational experiences, solitude, and naturalness. Parcel 6778 overlaps with approximately 400 acres in the northwest portion of this unit.

Environmental Consequences of Leasing and Development - Direct and Indirect Impacts: Under Alternative 2, which proposes to lease 33 parcels with a total of 48,876.56 acres, all or portions of 17 parcels overlap with the boundaries of 8 lands with wilderness characteristics units for a total of approximately 19,500 acres of overlap. In these areas there is potential for the subsequent exploration, development, and production of oil and gas in these areas to negatively impact wilderness characteristics. Undeveloped leases are not treated as impacts to wilderness characteristics because the rights may never be developed. Therefore the effects described below are considered indirect impacts and based on the assumption that the future exploration, development, and production of the lease would cause the impact to wilderness characteristics.

Size is a wilderness characteristic that would likely be impacted by the development of these leases. In BLM Manual 6310 the minimum size criteria for these units is 5,000 acres of roadless, contiguous BLM lands or roadless areas of less than 5,000 acres where one of the following apply in the WRFO: contiguous with Wilderness Study Areas (WSAs), or it is demonstrated the area is of sufficient size as to make practicable its preservation and use in an unimpaired condition. In the WRFO is had been determined that areas that are less than 5,000 acres and not adjacent to WSAs, are not of sufficient size to commit the FOs resources to managing to protect wilderness characteristics. Therefore, any new construction roads, improving and maintaining of primitive routes, pipeline and power line construction, well pad construction and/or any other ground disturbance is not consistent with lands with wilderness characteristics and this ground disturbance acreage would need to be removed from the lands with wilderness characteristics unit boundary and therefore reduce the size of these units. These types of impacts could potentially result in the unit not meeting the minimum size criteria and therefore causing the unit to no longer contain wilderness characteristics or not be of sufficient size to commit the FOs resources to managing to protect wilderness characteristics. Because oil and gas exploration, development, and production often depends on these types of ground disturbing activities, it is highly likely that lands with wilderness characteristics that are leased for oil and gas development will be temporarily impacted with a reduction in size and potentially no longer contain wilderness characteristics as a result of these impacts until final reclamation of the entire ground disturbance area has been completed and is successful. This assumption depends on the potential location of ground disturbances and intensity of development for each parcel.

Naturalness is another wilderness characteristic that would likely be adversely and indirectly impacted by leasing the areas within the lands with wilderness characteristics units. Naturalness is defined in BLM Manual 6310 as areas affected primarily by the forces of nature, and where any work of human beings must be substantially unnoticeable. Some modification of the environment is appropriate such as fencing, trails, stock ponds, and monitoring devices. However, oil and gas development is considered largely noticeable and is therefore not compatible with naturalness. In areas where oil and gas development could potentially occur in the proposed lease parcels, areas that are no longer considered natural as a result of this activity must be removed from the lands with wilderness characteristics unit boundary.

The other requisite wilderness characteristics in BLM Manual 6310 are the outstanding opportunity for solitude or a primitive and unconfined type of recreation. While one of these characteristics must be found within the lands with wilderness characteristics unit, these characteristics need not be found on every acre throughout the unit. Therefore it is unlikely that

these characteristics would be overall negatively impacted by the potential exploration, development, and production of oil and gas in these areas resulting in the unit no longer containing wilderness characteristics. It is likely that these wilderness characteristics would be found to lesser degree in areas within the lands with wilderness characteristics units directly impacted by oil and gas development, but would likely be found in other areas within the unit without oil and gas development.

Overall, Alternative 2 is likely to indirectly, negatively impact lands with wilderness characteristics in areas that are proposed to be leased. However, there are 11 tracts within 5 parcels under Alternative 2, where wilderness characteristics could be protected by applying 43 CFR 3101.1-2 that allows for relocation of proposed operations by 200 meters (660 feet) to minimize adverse impacts to other resources (Table 11). These tracts contain anywhere from less than one acre to up to 13 acres of identified lands with wilderness characteristics, but all of this acreage is located less than 660 feet from the boundary of each of these listed tracts. Therefore the leasing of these tracts and subsequent development could still result in not impacting lands with wilderness characteristics in these areas. Because if these tracts are leased, and projects are then proposed in these specific areas, a site-specific NEPA analysis could justify the need for mitigation to relocate any associated impact 200 meters (660 feet) to minimize adverse impacts to lands with wilderness characteristics .

Under Alternative 3, which proposes to lease 21 parcels with a total of 17,431.45acres, no portions of any of the 30 lands with wilderness characteristics units would be leased. Therefore there would be no adverse impacts to lands with wilderness characteristics as a result of Alternative 3. The WRFO is currently working on a Resource Management Plan Amendment and associated EIS that will address the potential impacts of significant increases in oil and gas development within the field office over the next 20 years. Because oil and gas development would potentially adversely impact lands with wilderness characteristics, decisions will be made on the management of the lands with wilderness characteristics units in the RMPA. According to BLM Manual 6320, considering wilderness characteristics in the land use planning process may result in several outcomes, including, but not limited to: (1) emphasizing other multiple uses as a priority over protecting wilderness characteristics; (2) emphasizing other multiple uses while applying management restrictions (conditions of use, mitigation measures) to reduce impacts to wilderness characteristics; and (3) the protection of wilderness characteristics as a priority over other multiple uses. Because the leasing of lands with wilderness characteristics is likely to result in indirect, adverse impacts to this resource value, it is recommended that until a decision is made on the management of these units, the areas where lands with wilderness characteristics units overlap with nominated parcels be deferred, as under Alternative 3, with the exception being the tracts from Alternative 2 listed in the above **Error! Reference source not found.** which can be leased, and mitigated if needed, to result in not impacting lands with wilderness characteristics.

<u>Environmental Consequences of Leasing and Development - Cumulative Impacts</u>:
Ground disturbing activities and human modifications to the landscape within the WRFO throughout time have resulted in reducing over 1.5 million acres to 30 lands with wilderness characteristics units that contain wilderness characteristics with a total combined acreage of 301,900 acres. This excludes WSAs which currently contain over 80,000 acres and are managed to not impair wilderness characteristics. The continued modification of the landscape by the

subsequent development of the proposed parcels for lease would likely indirectly continue to reduce the quantity and quality of lands with wilderness characteristics. By deferring areas that are found to contain wilderness characteristics it is likely that there would be no to very few impacts to lands with wilderness characteristics.

3.4.3.4 Native American Religious Concerns

Affected Environment: American Indian religious concerns are legislatively considered under several acts and Executive Orders, namely the American Indian Religious Freedom Act, the Native American Graves Environmental Assessment Protection and Repatriation Act, and Executive Order 13007 (Indian Sacred Sites). In summary, these require, in concert with other provisions such as those found in the NHPA and Archaeological Resources Protection Act, that the federal government carefully and proactively take into consideration traditional and religious Native American culture and life and ensure, to the degree possible, that access to sacred sites, the treatment of human remains, the possession of sacred items, the conduct of traditional religious practices, and the preservation of important cultural properties are considered and not unduly infringed upon. In some cases, these concerns are directly related to "historic properties" and "archaeological resources". In some cases elements of the landscape without archaeological or other human material remains may be involved.

Because the proposed lease sale does not involve ground disturbance, the proposed undertaking will have no effect on historic properties. Any future development of parcels that are purchased as a result of the lease sale will be subject to additional Section 106 compliance, including identification, effects assessment, consultation, and if necessary, resolution of adverse effects. As with cultural resources, there is some potential that any of the nominated parcels may contain Traditional Cultural Properties (TCP). These areas are associated with "cultural practices or beliefs of a living community that (a) are rooted in the community's history, and (b) are important in maintaining the continuing cultural identity of the community" (National Register Bulletin 38:1). TCPs are areas that are eligible for inclusion in the National Register of Historic Places. The recognition of TCPs is often difficult for non-Tribal members because the term "Traditional" in this context refers to those beliefs, customs, and practices of a living community of people that have been passed down through the generations, usually orally or through practice.

Identification of these concerns is normally completed during the land use planning efforts, reference to existing studies, or via direct consultation. Four tribes have claimed ancestral ties to the lands in this region and have requested that we consult with them. These tribes include the Ute Mountain Ute Tribe, Southern Ute Indian Tribe, Ute Indian Tribe of the Uinta and Ouray Reservation, and the Eastern Shoshone Tribe. Tribal consultation was performed for this undertaking. Letters were sent to the tribes July 31, 2013 regarding this specific lease sale requesting their input, concerns and inviting those tribes to enter a consultation process if they so desire. (See Section 4, Persons/Agencies Consulted). All letters were received by the tribes by August 6, 2013. As of September 10, 2013 only one response was received, in the form of a phone conversation between Michael Wolfe, WRFO archaeologist and Wilfred Ferris, Tribal Historical Preservation Officer for the Eastern Shoshone Tribe. His main concern was that all archaeological sites be avoided by future development. He had no comments specifically for the lease sale. He stated that in the case of any future burials that may be discovered as part of development that the Eastern Shoshone would defer to the Ute Indian Tribe of Utah for decisions

on how to handle potential Native American human remains. Additional consultation would be conducted during the APD stage. The decision to consult would occur when Class III inventory is completed.

Very little acreage in the proposed lease sale parcels has been inventoried at the Class III level. Therefore, little is known of what cultural resources exist in the parcels that may be of concern to Native American tribes. A recent large 35,063 acre block survey draft report (Conner et al 2013) performed for a proposed 3-D seismic exploration project, just to the east of the Skinner Ridge/Sulfur Creek group of parcels, identified 49 sites. The sites include prehistoric lithic scatters, prehistoric open camps (some with architecture), and historic open camps, trails, and dugout cabins. Of the 49 sites, 29 are evaluated as eligible or potentially eligible to the National Register. The entire surveyed area is proposed as a historical cultural landscape (the Clear Creek Watershed Trail System) based on the network of trails and associated camps. Some of the sites include Ute affiliated trails, and camps with structures. Some of these historic trails also are affiliated with the Dominguez-Escalante expedition of 1776, the first known evidence of historic Spanish exploration in the region. The preliminary results of this draft survey report, suggest the potential for similar cultural resources evaluated as eligible to the National Register, to be located within the Skinner Ridge/Sulfur Creek group of parcels, an area of similar topography and environment.

While historic trails may be identified as primarily logistical from the Euro-American perspective, as access to an area rich in resources and a way to get between two major river valleys; and social, as a way for family groups and bands to interact and participate in social and ceremonial events, the Ute however view the landscape in a much different light. “To Indian people, land which was held in common ownership was synonymous with existence: subsistence, shelter, food, beauty. The Ute’s traditional place-oriented spirituality was clearly at odds with the Euro-American view of how land should be utilized” (McBeth 2010:64). When Betsy Chapoose, Director of the Northern Ute Cultural Rights and Protection Office, was asked about their cultural connection to the Colorado National Monument, located in the heart of their aboriginal territory (30 miles southwest of the Clear Creek Watershed Trail System) she said:

“We must try to understand the comprehensive picture of what this Monument is. We must look at all aspects, not just selected archaeological sites. Air, water, the plant communities, the animals, everything from the sky and high spires to the bottom of the canyon must be investigated as a whole sacred place. We do not distinguish between cultural and natural resources: they are all in our view of this place. We (Ute) live our religion, and what the ancient Ute utilized and created here was an instrument of that religion. This is what we call home.” (Chapoose 2008 in McBeth 2010).

Previous consultation with Native American groups suggests a cultural historic landscape based on trails used by Ute Indians would be considered sacred to the various Ute tribes.

<u>Environmental Consequences of Leasing and Development - Direct and Indirect Impacts</u>: Exploration and development activities that might be proposed as a result of a lease include those which could physically disturb Native American religious sites (e.g., building well pads, access roads, installation of pipelines, etc.). While leasing in itself does not threaten potential Native American religious sites and values found within the area, previous cases suggest that

consultation with the involved tribes should be accomplished before the lease sale in order to determine Native American concerns.

All prehistoric sites are of importance to Native American groups. The tribes have expressed their desire that all sites be avoided by development. The tribes are especially concerned with Ute affiliated sites such as wickiups, camps, and trails. They have expressed a desire for development to not occur within the visible landscape surrounding these sites. The setting and feeling of these site types is an important aspect of site integrity. Any similar sites identified in future Class III inventories will need to be mitigated if they are located close to proposed development. This may involve a buffer distance of greater than 100 meters. Some of the parcels within the nominated consist of steep terrain. This will likely focus future oil and gas development to ridge tops and valley bottoms which also coincides with areas with a high probability of cultural properties sites evaluated as eligible to the NRHP. Identifiable Ute-affiliated trails are commonly identified along ridge crests. This will pose increased challenges for avoidance of any potential Ute-affiliated sites from potential development.

Environmental Consequences of Leasing and Development - Cumulative Impacts: Analysis of cumulative effects to Native American Religious Concerns for Alternatives 2 and 3 cannot be fully addressed until the nature of both the development actions and the concerns are known. This cannot be accomplished until Section 106 Class III inventories are performed. Native American groups have expressed a general dislike for development in the vicinity of known archaeological sites, especially ones of Ute affiliation. Cumulative effects to Native American Religious Concerns may include visual degradation of a landscape important in traditional religious practice, interruption of accessibility to a particular site and a change or alteration in the character of a site, place or landscape important to traditional beliefs and practices. If future consultations or investigations reveal the presence of such concerns, said concerns must be mitigated in consultation with the appropriate tribal, state and federal entities. The mitigation of potential impacts and effects to these properties, especially historic properties of a large landscape scale, would be challenging.

Alternatives 2 and 3 differ in the amount of acreage to be leased. The lesser amount of acreage in Alternative 3 would ensure less potential for cumulative impacts to Native American Religious Concerns than Alternative 2.

3.4.3.5 Paleontological Resources

Affected Environment: The White River Field Office is underlain by a wide variety of sedimentary formations that are well known for producing scientifically noteworthy fossils. Formations that are known to produce these scientifically noteworthy fossils are generally classified as Potential Fossil Yield Classification (PFYC) 4 or 5. Formations that are not well explored or do not produce fossils as frequently as other formations are often classified as PFYC 3 formations. Sedimentary formations that are not known to produce fossils are often classified as PFYC 2 formations.

Within WRFO, PFYC 5 formations, and adjacent portions of the Little Snake and Grand Junction Field offices, include most elements of the Green River Formation, the Uinta Formation, the Wasatch Formation, the Williams Fork Formation, the Iles Formation, and the

Upper Mesaverde Formation, and the Douglas Creek Member of the Green River Formation. There are no PFYC 4 formations in WRFO. There are two PFYC 3 formations that are potentially impacted by the oil and gas lease sale, the Mancos Shale and the Fort Union formations. Quaternary Alluvium has not produced any fossil resources within the WRFO to this point. Quaternary Alluvium is classified as a PFYC 2 formation.

The majority of the proposed lease sale parcels overly PFYC 5 formations. A portion of some parcels overly some PFYC 3 formations and some parcels overly PFYC 2 formations. Very few parcels contain PFYC 2 formations.

Environmental Consequences of Leasing and Development - Direct and Indirect Impacts: Oil and gas leasing, without any development, has no direct or indirect impacts or effects to paleontological resources. There is no disturbance to the sedimentary rock formations that would destroy or expose fossils.

Development of a lease to extract oil or natural gas can have significant impacts to fossil resources. The impacts are the result of the need to construct a sufficiently large, level well pad location to contain the drill rig and any supporting equipment, construction of the access roads, burial of any pipelines associated with drilling the well, including for produced water disposal and/or bringing drilling and hydraulic fracturing water (frac water) to the pad location, or excavation of reserve/blooie/cuttings pits to support the drilling operations. Depending of the topography of the location extensive excavation into the underlying sedimentary rock formation may be necessary which tends to increase the potential for encountering previously unknown fossil resources. Smaller fossil could be completely destroyed by construction without ever being recognized or identified. Larger fossils can be broken or displaced during construction though they are generally easier to recognize during construction monitoring allowing for their identification and recovery. Other losses may include but not be limited to any paleo-environmental data that may be, or have been, associate with the fossils in question.

Indirect impacts to fossils as a result of development may include unauthorized collection of newly exposed fossils as a result of improved access to the area, increased visibility of the formations and increased human presence and activity in the area. If interim reclamation is not carried out in a timely fashion there is the potential for increased erosion and weathering in the disturbed area which could result in the destruction and displacement of smaller fossils. Larger fossil would not necessarily be displaced but would weather and fragment as the weathering process proceeds resulting in a loss of integrity, particularly of the small more diagnostically important features of the fossil. In those areas where reclamation is not realistic, such as road surfaces and the working surface around a well head the weathering process would likely continue at some rate for the production life of the well. Depending on the particular formation, weathering characteristics of the formation and any subsequent maintenance needs the destruction of fossils and loss of paleontological data could vary from relatively slow and of negligible scientific data loss or more rapidly resulting in a much more severe loss of scientific data.

Under Alternative 2, all of the nominated parcels (48,554.5 acres) would potentially be impacted by oil and gas development related activities in PFYC 5 and PFYC 3 fossil formations. Should development occur sedimentary rock formations would potentially be impacted by excavations

needed to level well pads, excavate reserve, cuttings/blooie pits and bury produced water, oil and/or gas well tie pipelines that bring product to collection points or processing facilities. Impacts could include total destruction of smaller fossils, breakage and/or dislocation of larger fossils and destruction of the surrounding environmental context that the fossil(s) were located in. There is a greater potential to impact fossil resources in any PFYC 5 formations that are leased than in PFYC 3 formations. At the present time the potential to impact fossils in PFYC 3 formations is less certain since the fossil production potential of the PFYC 3 formations is not as well understood due to a lack of work in those areas compared to the more well-known PFYC 5 formations.

Under Alternative 3, Twenty-one of the nominated parcels (17,431.45 acres) would potentially be impacted by oil and gas development related activities in PFYC 5 and PFYC 3 fossil formations. Should development occur sedimentary rock formations would potentially be impacted by excavations needed to level well pads, excavate reserve, cuttings/blooie pits and bury produced water, oil and/or gas well tie pipelines that bring product to collection points or processing facilities. Impacts could include total destruction of smaller fossils, breakage and/or dislocation of larger fossils and destruction of the surrounding environmental context in which the fossil(s) were located. Alternative 3 would defer 31,145.11 acres from leasing for an unknown period of time. The PFYC 3 and5 formations located in these parcels would not be impacted by oil and gas development related activities until such time as the parcels are leased in some future oil and gas lease sale and resultant development occurs.

Environmental Consequences of Leasing and Development - Cumulative Impacts:
Paleontological monitoring work undertaken in the field Office since the signing of the 1997 White River ROD and RMP has resulted in the location of numerous fossils and fossil localities across the Field Office. Monitoring has resulted one of the farthest east recordings of specimens of *Araucaria sp.*, an ancient conifer similar to the Norfolk Island Pine, other well preserved plant specimens, well preserved insect specimens, and large beds of previously unrecorded marine fossils within the area. Vertebrate fossils identified and recovered include; 1) specimens of *Hyracotherium sp.*, sometimes referred to, as the “Dawn Horse”, 2) an intact and relatively undistorted *Colodon*, a type of ancient tapir, skull, 3) a complete *Baena arenosa*, type of turtle specimen, including the cervical and skull elements. Other mammal specimens have been reported. However, the number and species of many smaller fossils that may have been lost during construction and monitoring is unknown. Small fossils may often be masked by dust from construction activities and as a consequence not noticed by monitors.

Due to the disturbance of the sedimentary rock formations present some important paleontological data has been recovered. However, some unquantifiable numbers of fossils have likely been lost along with quantities of paleo-environmental data. These losses represent an irreversible, irretrievable, permanent loss of scientific data from the regional paleontological database.

Under Alternatives 2, and 3, paleontological resources would continue to be impacted at the time of development. Required monitoring and inventory efforts would continue to result in the identification and recovery of scientifically noteworthy fossil resources and, to some extent, related paleo-environmental data associated with the finds. However, there is a very high potential for smaller fossils and related paleo-environmental data to be lost as a result of

development after a lease is issued. Factors that contribute to the unknown loss of data as a result of development include, but may not be limited to, small size, poor visibility of the fossils due to their small size and potential masking by dust during and immediately after construction activities. These impacts would be in addition to the currently occurring impacts on lease parcels that are already under development in the Field Office.

3.4.3.6 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 19: Profile of County Demographic, 2000-2010

Population	Moffat	Rio Blanco	Garfield	Colorado	U.S.
Population (2010*)	13,519	6,494	56,389	5,029,196	303,965,272
Population (2000)	13,184	5,986	43,791	4,301,261	281,421,906
Population Percent Change (2000-2010*)	2.5%	8.5%	28.7%	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.

County populations are included in Table 19. 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 20 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).

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.

Table 20: Average Annual Production and Revenue by County

Production & Revenue	Moffat	Rio Blanco	Garfield
Oil Production (Thousand bbl)	279	5,409	13,867

Oil Revenue ($Thousand)	14,579	283,068	725,669
Gas Production (MMCF)	18,182	53,992	404,420
Gas Revenue ($Thousand)	58,365	173,314	12,981,879

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 Leasing and Development - Direct and Indirect Impacts: The direct effect of the Alternative 2 would be the payments received, if any, from the leasing of the 48,554.5 acres of federal mineral estate, or a subset thereof. The direct effect of Alternative 3 would be payments received, if any from the leasing of 17,431.45acres. 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 $7,691,402 under Alternative 2 and $3,999,410 under Alternative 3 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.

Environmental Consequences of Leasing and Development - Cumulative Impacts: 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.

3.4.3.7 Visual Resources

Affected Environment: Visual resources are the visible physical features of a landscape that convey scenic value. Section 101(b) of the National Environmental Policy Act of 1969 requires that measures be taken to “assure for all Americans…esthetically pleasing surroundings.” The BLM developed the Visual Resource Management (VRM) system to identify and evaluate an area’s scenic value. The visual resource inventory (VRI) process described in BLM Manual H-8410-1 establishes VRI classes, which are used to assess visual values for areas of the landscape. VRI Classes II, III, and IV are determined by using a combination of scenic quality, sensitivity level, and distance zone, with Class II having a higher level of value and Class IV having the least visual value. VRI Class I area are assigned to special management areas, which are the most valued landscapes. The VRI classes are the baseline from which environmental effects are measured.

The BLM also maintains four Visual Resource Management (VRM) classes to describe the level of acceptable change allowable at a given location. Scenic values in the BLM White River Resource Area have been classified according to the Visual Resource Management (VRM) system into four Visual Resource Management Classes (I-IV), and VRM objectives were established in the 1997 White River ROD/RMP. VRM Class I is the most restrictive with VRM Class IV being the least restrictive. The VRM objectives provide the amount of allowable change and are a resource-allocation.

Under Alternative 2, parcels located in VRI Class II areas include: the eastern portion of parcel 6816, the eastern portion of parcel 6814, all of parcel 6776, the western portion of parcel 6777, and all of Parcel 6812, all of Parcel 6833, and the western half of parcel 6779.

Under Alternative 2, parcels located in VRM Class II areas include: the southern portions of parcel 6753, approximately half of parcel 6754 near the White River, areas close to the White River in parcel 6756, most of parcel 6758 near the White River, the southern portion of parcel 6757, the western portion of parcel 6815, and all portions of BLM lands in parcels 6768, 6772, 6773, 6769, 6776, 6777, 6766, 6779, 6833, 6765, 6778, and 6790.

Under Alternative 3, parcels located in VRI II include: the eastern portion of parcel 6816, the eastern portion of parcel 6814, all of parcel 6776, the southwestern part of parcel 6777, and all of parcel 6812.

Under Alternative 3, parcels located in VRM II areas include all portions of BLM lands in parcels 6769, 6771, 6770, 6772, 6773, 6776, 6777, 6766, 6765, and 6778.

Environmental Consequences of Leasing and Development - Direct and Indirect Impacts: The leasing of the proposed parcels in itself has no impact on visual resources. However, it is assumed that oil and gas exploration, development, and production will occur on parcels that are leased and will therefore, indirectly affect visual resources. Under both Alternatives 2 and 3, areas of the proposed lease parcels that are identified as VRI Class III or IV and/or are managed as VRM Class III or IV, the subsequent exploration, development, and production of oil and gas will impact visual resources. These impacts will occur in areas that have been identified as having less value and scenic appeal to the casual observer than VRI Class I and II areas. Mitigation may be required after being analyzed in a site-specific NEPA document in order to reduce impacts to the landscape and sensitive concerned publics. These subsequent oil and gas development impacts in VRM Class III and IV areas will most likely conform to the 1997 White River ROD/RMP, but may require mitigation to meet the VRM management objectives. Under both Alternatives 2 and 3, areas of the proposed lease parcels that are identified as VRI Class II and/or are managed as VRM Class II, the subsequent exploration, development, and production of oil and gas will impact visual resources and will most likely require extensive mitigation in order to reduce impacts to the landscape or sensitive concerned publics and/or to meet management objectives. There is potential for some oil and gas development in these areas, depending on the degree, magnitude, and intensity of the impacts, to not be able to mitigate impacts enough to meet the VRM Class II management objective of retaining the existing character of the landscape. Therefore potential exists in these VRM Class II areas for some oil and gas related project proposals to be rejected because of this VRM Class II objective.

Environmental Consequences of Leasing and Development - Cumulative Impacts: Considering that the majority of the WRFO has been leased for oil and gas development, it may be increasingly difficult to develop oil and gas in parcels located in VRI II or VRM II areas, while not impacting these valued landscapes and/or retaining the existing character of the landscape. In VRI III or IV and/or VRM III/IV it is expected that the landscape will continue to be modified and changed as oil and gas develop occurs.

3.4.4 Resource Uses

3.4.4.1 Access and Transportation

Affected Environment: It is unknown exactly where and how the transportation system or public land access may be impacted by the leasing of these proposed parcels and the subsequent oil and gas development of these parcels. It is assumed that this activity will occur in and near the proposed lease parcels. It is also assumed that existing roads will be upgraded and used for the majority of access to oil and gas developments and potentially new roads, typically short spur roads, will be constructed to reach well pads, pipelines, and other associated facilities.

Environmental Consequences of Leasing and Development - Direct and Indirect Impacts: Neither Alternative 2 or 3 have any immediate impact to access or transportation resource uses. The direct, indirect, or cumulative effects cannot be predicted until the site-specific APD stage of development and would then be analyzed in the NEPA document for any site specific concerns. It is assumed that traffic volumes would increase in areas near and in the proposed leased parcels once theses parcels are explored and developed, but which roads may be proposed for use, or if new roads would be proposed is unknown. Typically traffic volumes and heavy equipment use on roads to access and construct any new developments increase during the short 3 to 6 month duration of constructing and drilling the well pads. After interim reclamation and during the production phase traffic volumes typically decrease.

Environmental Consequences of Leasing and Development - Cumulative Impacts: Combined with other existing traffic, traffic volumes are expected to incrementally increase during the development of these oil and gas leases. An increase or decrease in access to public lands may occur as a result of developing these oil and gas leases. Overall, the transportation system may be upgraded to improve the quality transportation system routes in areas associated with use by oil and gas traffic.

3.4.4.2 Livestock Operations

Affected Environment: The nominated parcels occur within 24 different livestock grazing allotments administered by the BLM WRFO. The grazing allotments and associated lease parcels are listed below in Table 21. Deferral of parcels would reduce or prevent additional development in affected allotments beyond what already occurs there.

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.

Table 21: Parcels Overlapping Grazing Allotments

Allotment Name, Number	Parcels within or intersecting this allotment
Banta #06341	6778
Banta Flats #06343	6778
Black Sulphur #06612	6915
Cathedral Bluffs #06340	6763, 6765, 6766, 6768, 6769, 6770, 6771, 6772, 6773,

Allotment Name, Number	Parcels within or intersecting this allotment
	6779, 6833
Chokecherry #06609	6814
Coal Reef #06334	6757, 6758, 6759
E Douglas Creek #06356	6765, 6776, 6777, 6779, 6833
Greasewood #06036	6754
Hall Draw 06335	6758, 6759
Hatch Gulch #06028	6783
Horse Draw #06332	6755, 6757, 6759
Johnson/Trujillo #06338	6813
Keystone #06605	6814, 6816, 6817, 6836, 6837
Little Spring Creek #06038	6756, 6758
Massadona #06324	6759
McAndrews Gulch #06324	6764
Pinyon Ridge #06333	6753, 6754, 6755, 6756, 6757, 6764
River #06602	6753
S Fork Price Creek #06608	6816
Skinner Ridge #06025	6767, 6781, 6819, 6820, 6821
Square S #06027	6760, 6761, 6763, 6768, 6770, 6771, 6772, 6774, 6775, 6781, 6782, 6783, 6815, 6818, 6819, 6820, 6822, 6823
State Line #06311	6790
Twin Buttes #06346	6765, 6776, 6777, 6812
Upper Coal Creek #06330	6764

Environmental Consequences of Leasing and Development - Direct and Indirect Impacts: 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 and disturbance to livestock with potential for conflicts between these two resource uses. 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.

Under Alternative 2 a total 48,554.5 acres of federal mineral estate in 33 parcels would be leased. Where development occurs, impacts to livestock grazing in the affected allotments would be substantially as described above. On-going development would continue to occur with affects to livestock grazing from construction of well pads, pipelines, roads, and other oil and gas development related infrastructure.

Under Alternative 3, the BLM would offer 21 parcels totaling 17,431.45acres for lease and defer 31,145.11 acres from the sale. Those parcels that are withdrawn from the June 2014 lease sale offering would not be subject to development related impacts associated with extraction of oil and gas resources on those parcels. However, unless they are permanently withdrawn from leasing they could be made available for future lease sales at which time they would likely be subject to potential development related impacts. On-going development would continue to occur on existing leases in the allotments with affects to livestock grazing from construction of well pads, pipelines, roads, and other oil and gas development related infrastructure. Parcels that are not deferred from the June 2014 lease sale would potentially be impacted in the manner described above should the lease holder decide to develop the lease(s).

Environmental Consequences of Leasing and Development - Cumulative Impacts: Overall, the alternatives would both result in continued oil and gas development activities similar to what has occurred throughout the area over the last 30-plus years. Under the Alternative 3 impacts would be reduced according to the parcels deferred. 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) or losses may be off-set by reclamation activities resulting in increased forage production. Impacts associated with either Alternative 2 or 3 would be in addition to the currently occurring impacts on lease parcels that are already under development throughout the WRFO.

3.4.4.3 Recreation

Affected Environment: The proposed lease parcels under Alternatives 2 and 3 are located within the White River Extensive Recreation Management Area (ERMA) on BLM lands administered by the WRFO. The WRFO manages the ERMA to provide for unstructured recreation activities,

and a diversity of outdoor recreation opportunities, including hunting, dispersed camping, hiking, horseback riding, wildlife viewing, and off-highway vehicle (OHV) use are to be maintained and protected. There are no Special Recreation Management Areas (SRMAs) identified within WRFO lands. Hunting is the predominant recreational activity within the proposed lease areas, with the highest rate of use occurring during the upland big game hunting season (mid-August through December). Other recreational activities that occur in these areas include dispersed camping, OHV recreational riding, hiking, and horseback riding. Special Recreation Permit holders permitted in proposed leasing parcels include: 10 commercial guiding for big game hunting and 11 commercial guiding for mountain lion hunting. There are no developed recreation sites or facilities in the project area.

On BLM-administered lands, the Recreation Opportunity Spectrum (ROS) is a classification system and a prescriptive tool for recreation planning and management. ROS classes within the WRFO ERMA are not specified for all parcels proposed for leasing. However, many of the parcels fall within or most closely resemble a ROS class of Semi-Primitive Motorized (SPM). The SPM physical and social recreation setting is typically characterized by a natural appearing environment with few administrative controls and low interaction between users (but evidence of other users may be present). SPM recreational experience is characterized by a high probability of isolation from the sights and sounds of humans within a setting that offers challenge and risk.

Environmental Consequences of Leasing and Development - Direct and Indirect Impacts: The leasing of the proposed parcels and the subsequent exploration and development activities may provide the recreating public with additional or improved access to existing recreational opportunities, depending on the location of development and the type of access being provided. This could mean improved or new roads to areas that otherwise were only accessible by walking or horseback riding. Conversely, development in areas deemed suitable for primitive types of recreation may be detrimental to these values and ultimately remove opportunities for this type of recreation. This could mean that increased oil and gas activities in areas where hunting is the dominant recreation use or where dispersed camping has been occurring may impact the experience those recreationalists are seeking. 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 will likely be displaced from the actual sites of oil and gas infrastructure development if big game is displaced. This could temporarily impact the success of localized hunters, or the Special Recreation Permit holders mentioned above, depending on the timing and location of these activities. 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, temporary in natural, 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.

Environmental Consequences of Leasing and Development - Cumulative Impacts: Combined with other ongoing oil and gas development activities, Alternative 2 may incrementally contribute to reduced opportunities for dispersed recreation and increase wildlife displacement.

3.4.5 Special Designations

3.4.5.1 Areas of Critical Environmental Concern

Affected Environment:
Areas of Critical Environmental Concern (ACECs) were designated by the BLM in order to protect important unique landscapes, cultural and archaeological resources, threatened and endangered species habitats, and riparian corridors that the BLM has assessed and found to be in need of special management. There are 17 lease parcels that overlap two ACECs within the June 2014 lease sale, as seen in Table 22. Twelve of the 17 parcels overlap with portions of the East Douglas Creek ACEC. This ACEC was designated due to the occurrence of a plant association that is of lesser quality elsewhere and contains a concentration of rare plant species that are of State and National concern as well as relatively undisturbed watersheds that may support the Colorado River cutthroat trout (CNHP 1997). Five of the 17 parcels overlap with portions of the White River Riparian ACEC. The White River Riparian ACEC was designated in 1997 due to important biologically diverse plant communities, bald eagle roosts, and the federally listed Colorado pike minnow found below Taylor Draw Dam. The White River Riparian ACEC is unique from other ACECs as it is broken into small sections along the White River within the field office rather that creating one large unit. For further discussion see section 3.4.2.4 Special Status Animals section 3.4.2.5 Special Status Plans and section 3.4.2/7 Wetlands and Riparian Zones.

Environmental Consequences of Leasing and Development - Direct and Indirect Impacts:
There will be no direct or indirect effects from the lease sale. However, consequential development that may occur after parcels are leased could impact ACECs. Surface disturbing activities could directly alter plant communities and watersheds that contribute to the qualities that define the ACECs. The potential for indirect impacts from weedy species and fugitive dust to impact the biologically diverse plant communities found within the ACECs.

However, Exhibit WR-CSU-02 will be applied to all lease parcels that contain any portion of the ACECs which requires that a plant inventory be conducted prior to approving any surface disturbing activities within the ACEC boundaries. Surface disturbance will not be allowed within mapped locations of special status plant species habitat. If plants are found, Section 7 consultation with the FWS may be required and the relocation of surface disturbance or facilities of more than 200 meters may be required. The timing required for conducting the plant inventories may also require deferring activities longer than 60 days. Additional discussion can be found in the special status species sections.

Seven parcels overlapping the East Douglas Creek ACEC and five parcels overlapping the White River Riparian ACEC would be deferred under Alternative 3. There would be no direct or indirect impacts to the seven parcels overlapping the East Douglas Creek ACEC and White River ACECs.

Table 22: Parcels Overlapping Areas of Critical Environmental Concern

Parcel Number	Deferred under Alternative 2?	Deferred under Alternative 3?	ACEC

6753	No	Yes	White River Riparian
6754	No	Yes	White River Riparian
6757	No	Yes	White River Riparian
6758	No	Yes	White River Riparian
6765	No	Yes *	East Douglas Creek
6766	No	No	East Douglas Creek
6768	No	Yes *	East Douglas Creek
6769	No	Yes *	East Douglas Creek
6770	No	No	East Douglas Creek
6771	No	No	East Douglas Creek
6772	No	Yes *	East Douglas Creek
6773	No	No	East Douglas Creek
6776	No	Yes *	East Douglas Creek
6777	No	No	East Douglas Creek
6779	No	Yes	East Douglas Creek
6790	No	Yes	White River Riparian
6833	No	Yes	East Douglas Creek

** Parcels would have partial deferral*

Environmental Consequences of Leasing and Development - Cumulative Impacts: Cumulative impacts may affect the White River Riparian ACEC due to the scattered distribution of the ACEC. The ACEC may be impacted by pollutants and soil erosion entering the White River upstream from the designated ACEC. Though plant inventories will be required in and around surface disturbing activities, unknown impacts may be seen downstream of the plant inventories. Cumulative impacts may also be seen in the forms of habitat fragmentation and establishment and spread of nonnative invasive species with the development of leased parcels. Habitat fragmentation could potentially impact SSPS as well as the surrounding pollinator habitat. Fragmentation could reduce the potential for special status plant species to increase their habitat and may increase the required flight distance for pollinator species in order to pollinate special status plants. An increased flight distance could mean that some SSPS do not receive pollination thus not set seed. Weedy species may out-compete biologically diverse plant communities or establish in suitable and potential SSPS habitat which could decrease native plant population sizes or prevent native colonization by slowing or ceasing seral progression. Weedy species, soil erosion and water pollution have the possibility of decreasing habitat quality for native fish found in the waterways of ACECs.

Similar to White River ACEC, East Douglas Creek ACEC cumulative impacts may also be seen in the forms of habitat fragmentation and establishment and spread of nonnative invasive species with the development of leased parcels. However, under Alternative 3, seven of the East Douglas Creek parcels would be deferred decreasing cumulative impacts to this ACEC as a result of parcel development.

3.4.5.2 Scenic Byways

Affected Environment: The Dinosaur Diamond National Scenic Byway is a 512-mile scenic loop within eastern Utah and western Colorado. The Dinosaur Diamond National Scenic Byway traverses the western portion of the WRFO Planning Area along SH 139 and SH 64, passing

through the towns of Rangely and Dinosaur. The byway is used primarily for viewing paleontological and archaeological resources, and over the past decade, travel demands have increased along SH 139 between I-70 and Rangely.

Environmental Consequences of Leasing and Development - Direct and Indirect Impacts: Under Alternative 2, parcels proposed for lease that are located approximately 1.5 miles east of the Dinosaur Diamond Scenic Byway include parcels 6776, 6765, and 6812. Under Alternative 3, parcels proposed for lease that are located approximately 1.5 miles east of the Dinosaur Diamond Scenic Byway include parcels 6776 and 6812. These parcels are located about 35 miles south of Rangely, CO. Some portion of each of these parcels is visible from the scenic byway. Depending on the degree and location of the subsequent oil and gas exploration, development, and production there may be indirect impacts to the visitor's experience while traveling the scenic byway. These parcels are located in areas with a VRM II class objective of retaining the landscapes visual characteristics, therefore any visual impacts to the scenic byway would be mitigated. Increased traffic volumes associated with the exploration, development, and production of the oil and gas on these leases may indirectly impact the traffic flow and the overall experience of visitors traveling the scenic byway.

Environmental Consequences of Leasing and Development - Cumulative Impacts: Combined with other ongoing oil and gas development activities on private property and other nearby BLM lands, the proposed leasing of these parcels may incrementally contribute to impacting the experience of visitors traveling the Dinosaur Diamond Scenic Byway.

CHAPTER 4– COORDINATION AND CONSULTATION

PERSONS/AGENCIES CONSULTED

Tribal consultation was initiated for this undertaking. Letters were sent to the Ute Mountain Ute Tribe, Southern Ute Indian Tribe, Ute Indian Tribe of the Uinta and Ouray Reservation, and the Eastern Shoshone Tribe on July 31, 2013 regarding this specific lease sale requesting, their input, concerns and inviting those tribes to enter a consultation process if they so desire. All letters were received by the tribes by August 6, 2013. As of September 10, 2013 only one response was received, in the form of a phone conversation between Michael Wolfe, WRFO archaeologist and Wilfred Ferris, Tribal Historical Preservation Officer for the Eastern Shoshone Tribe.

Colorado Parks and Wildlife was contacted as well as Rio Blanco County and other private surface land owners.

LIST OF PREPARERS AND PARTICIPANTS

INTERDISCIPLINARY REVIEW

Name	Title	Resource

Name	Title	Resource
Bob Lange	Hydrologist	Floodplains, Surface Hydrology, Soils, Water Quality (Surface), Ground Hydrology, Water Quality (Ground)
Melissa Kindall	Range Management Specialist	Wild Horse Management
Heather Woodruff	Range Management Specialist	Forest Management
Ester McCullough	Associate Field Manager	Socioeconomics
James Roberts	Assistant Field Manager	Hazardous Waste
Paul Daggett	Mining Engineer	Solid Minerals
Ed Hollowed	Wildlife Biologist	Migratory Birds, Special Status Animal Species, Wildlife (Aquatic & Terrestrial),
Baili Foster Heather Woodruff	Ecologist	Special Status Plant Species, Areas of Critical Environmental Concern, Invasive/Non-native Species
Matt Dupire Mary Taylor Tyrell Turner	Rangeland Management Specialist	Upland Vegetation, Livestock Operations
Michael Wolfe Michael Selle	Archeologist	Cultural Resources, Native American Religious Concerns, Paleontological Resources
Stacey Burke	Realty Specialist	Realty Authorizations, Land Tenure
Aaron Grimes	Outdoor Recreation Planner	Visual Resources, Lands with wilderness characteristics , Wilderness Study Areas, Wild and Scenic Rivers, Access and Transportation, Recreation
Forest Cook	Air Quality Specialist	Air Quality

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Attachment A: All Parcels Nominated for Lease

June 2014 – Colorado Competitive Oil and Gas Lease Sale

PARCEL ID: 6753

T.0030N., R.0980W., 6TH PM
Section 20: ALL;
Section 21: ALL;
Section 32: Lot 1,5;
Section 32: N2,E2SW,SE;
Section 34: Lot 1,3;
Section 35: Lot 1,3,9;

Rio Blanco County
Colorado 1993.950 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0030N., R.0980W., 6TH PM
Section 20: ALL;
Section 21: S2NE,W2NW,W2SW,SESW,W2SE,SESE;
Section 32: NE,N2NW,E2SW,N2SE;
Section 34: Lot 1,3;
Section 35: Lot 1,9;

The following lands are subject to Exhibit WR-TL-08 to protect big game severe winter range:
T.0030N., R.0980W., 6TH PM
Section 20: ALL;
Section 21NWNW,S2NW,S2;
Section 32: Lot 1,5;
Section 32: N2,E2SW,SE;
Section 34: Lot 1,3;
Section 35: Lot 1,3,9;

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:
T.0030N., R.0980W., 6TH PM
Section 20: ALL;
Section 21: ALL;
Section 32: Lot 1,5;

Section 32: N2,E2SW,SE;

The following lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern:
T.0030N., R.0980W., 6TH PM
Section 32: Lot 5;
Section 32: SESW;
Section 35: Lot 1,9;

The following lands are subject to Exhibit WR-CSU-05 to protect bald eagle nest, roosts and perch habitat:
T.0030N., R.0980W., 6TH PM
Section 32: Lot 5;
Section 32: SESW;
Section 35: Lot 1, 9;

The following lands are subject to Exhibit WR-TL-01 to protect the nests of threatened, endangered, or candidate raptors:
T.0030N., R.0980W., 6TH PM
Section 32: NWNW;

The following lands are subject to Exhibit WR-TL-05 to protect bald eagle winter roosts and concentration areas:
T.0030N., R.0980W., 6TH PM
Section 32: W2NW;
Section 34: Lot 1;
Section 35: Lot 1,3,9;

The following lands are subject to Exhibit WR-NSO-05 to protect bald eagle roosts:
T.0030N., R.0980W., 6TH PM
Section 35: Lot 9;

BLM; CON: WRFO

PARCEL ID: 6754
T.0030N., R.0980W., 6TH PM
Section 19: Lot 5-8;
Section 19: E2,E2W2;
Section 30: Lot 5,6,10,12,24,25;
Section 30: E2SE;
Section 31: Lot 5-9;
Section 31: Lot 11,13,15,20,22,23;
Section 31: SESW;

Rio Blanco County

Colorado 1198.760 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

All lands are subject to Exhibit WR-TL-08 to protect big game severe winter range.

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.0980W., 6TH PM
Section 19: E2,E2W2;
Section 30: Lot 5,24,25;
Section 30: E2SE;
Section 31: Lot 7-9,11,13,18,20,22,23;
Section 31: SESW;

The following lands are subject to Exhibit WR-TL-03 to protect the nests of ferruginous hawks:
T.0030N., R.0980W., 6TH PM
Section 19: Lot 5-8;
Section 19: W2NE,E2NW,E2SW;
Section 30: Lot 5;

The following lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern:
T.0030N., R.0980W., 6TH PM
Section 30: Lot 12, 24;
Section 30: SESE;
Section 31: Lot 11,13,20;

The following lands are subject to Exhibit WR-CSU-05 to protect bald eagle, eagle nest, roosts and perch habitat:
T.0030N., R.0980W., 6TH PM
Section 30: Lot 12,24;
Section 30:SESE
Section 31: Lot 23,11,13,20

The following lands are subject to Exhibit WR-TL-01 to protect the nests of threatened, endangered, or candidate raptors:
T.0030N., R.0980W., 6TH PM
Section 30: Lot 6,24;

Section 30: E2SE;
Section 31: Lot 5,6,9,11,13;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0030N., R.0980W., 6TH PM
Section 30: Lot 24;
Section 30: NESE;

The following lands are subject to Exhibit WR-TL-05 to protect bald eagle winter roosts and concentration areas:
T.0030N., R.0980W., 6TH PM
Section 30: Lot 10,12,24;
Section 30: E2SE;
Section 31: Lot 5,6,9,11,13;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0030N., R.0980W., 6TH PM
Section 30: Lot 24;

The following lands are subject to Exhibit WR-NSO-05 to protect bald eagle roosts:
T.0030N., R.0980W., 6TH PM
Section 30: Lot 12, 24;
Section 30: E2SE;

The following lands are subject to Exhibit WR-LN-03 to alert lessee of potential restrictions due to wild horse habitat:
T.0030N., R.0980W., 6TH PM
Section 31: Lot 8,23;
Section 31: SESW;

BLM; CON: WRFO

PARCEL ID: 6755

T.0030N., R.0990W., 6TH PM
Section 12: S2;
Section 13: NWNE,S2NW,SW;
Section 14: E2,N2NW,SWNW,SESW;

Moffat County
Colorado 1080.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

All lands are subject to Exhibit WR-CSU-03 to protect the black-footed ferret reintroduction area
All lands are subject to Exhibit WR-TL-03 to protect the nests of ferruginous hawks.

All lands are subject to Exhibit WR-TL-08 to protect big game severe winter range.

All lands are subject to Exhibit WR-LN-01 to alert lessee of potential requirements for protection of prairie dog towns.

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0030N., R.0990W., 6TH PM
Section 12: E2SW,SE;SWSW;
Section 13: NWNE,S2NW;SW;
Section 14: NWNE,NENW,SESE;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0030N., R.0990W., 6TH PM
Section 12: SE,SESW
Section 13: NWNE,S2SW;
Section 14: NWNE, NENW;

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:
T.0030N., R.0990W., 6TH PM
Section 12: S2;
Section 13: NWNE,S2NW,SW;
Section 14: E2,N2NW,SWNW,SESW;

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0030N., R.0990W., 6TH PM
Section 12: E2SW,SE;
Section 13: NWNE,SENW,NESW,S2SW;
Section 14: NWNE,NENW;

The following lands are subject to Exhibit WR-NSO-02 to protect special status raptor nests:
T.0030N., R.0990W., 6TH PM
Section 13: SW;
Section 14: W2NW,SESE;

The following lands are subject to Exhibit WR-NSO-09 to protect sensitive plants:
T.0030N., R.0990W., 6TH PM
Section 14: N2NE

BLM; CON: WRFO

PARCEL ID: 6756

T.0030N., R.0990W., 6TH PM
Section 23: ALL;
Section 24: ALL;
Section 25: Lot 1,4,7,9;
Section 25: N2;
Section 26: Lot 1,3,7,8,10,12;
Section 26: NE;
Section 35: Lot 6,9;
Section 35: S2NW,S2;

Rio Blanco County
Colorado 2366.010 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

All lands are subject to Exhibit WR-TL-08 to protect big game severe winter range.

All lands are subject to Exhibit WR-LN-01 to alert lessee of potential requirements for protection of prairie dog towns.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0030N., R.0990W., 6TH PM
Section 23: N2,SW,E2SE;
Section 24: NE,N2NW,SENW,NESW;S2SW,N2SE,SWSE;
Section 25: Lot 1,4,7,9;
Section 25: N2;
Section 26: Lot 1,7,8,10,12;
Section 26: N2NE;
Section 35: Lot 6,9;

The following lands are subject to Exhibit WR-CSU-03 to protect the black-footed ferret reintroduction area:
T.0030N., R.0990W., 6TH PM
Section 23: ALL;
Section 24: N2,SW,NWSE;
Section 26: Lot 1,3;

Section 26: N2NE;

The following lands are subject to Exhibit WR-NSO-02 to protect special status raptor nests:
T.0030N., R.0990W., 6TH PM
Section 23: E2NE,SESW,S2SE;
Section 24: W2NE,NW,NESW;
Section 26: Lot 1,7;
Section 26: NE;

The following lands are subject to Exhibit WR-TL-03 to protect the nests of ferruginous hawks:
T.0030N., R.0990W., 6TH PM
Section 23: E2,NW,E2SW;;
Section 24: ALL;
Section 25: Lot 4,7,9;
Section 25: N2NE,SWNE,NW;
Section 26: Lot 1,3,7,8,10,12;
Section 26: NE;
Section 35: Lot 6,9;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0030N., R.0990W., 6TH PM
Section 23: E2NE,E2SW;
Section 24: NWNE,NW,SWSW;
Section 25: W2NW;
Section 26: Lot 1,7;
Section 26: NE;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0030N., R.0990W., 6TH PM
Section 23: SESE;
Section 24: N2NW,SWNW;
Section 25: NWNW;
Section 26: Lot 1,7;
Section 26: N2NE,SWNE;

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:
T.0030N., R.0990W., 6TH PM
Section 23: N2, E2SW, SE
Section 24: ALL
Section 25: N2N2;
Section 26: Lot 1,7;
Section 26: NE;
Section 35: Lot 6,9;
Section 35: S2NW,S2;

The following lands are subject to Exhibit WR-CSU-05 to protect bald eagle nest, roosts and perch habitat:
T.0030N., R.0990W., 6TH PM
Section 25: Lot 4,7;

BLM; CON: WRFO

PARCEL ID: 6757

T.0030N., R.0990W., 6TH PM
Section 21: ALL;
Section 22: ALL;
Section 27: Lot 1,3,7,8,10,13,15;
Section 27: W2NE,NW;
Section 28: Lot 1,3;
Section 28: N2,SW,N2SE;

Rio Blanco County
Colorado 2221.040 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

All lands are subject to Exhibit WR-TL-08 to protect big game severe winter range.

All lands are subject to Exhibit WR-LN-01 to alert lessee of potential requirements for protection of prairie dog towns.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0030N., R.0990W., 6TH PM
Section 21: NE,NENW,S2NW,S2;
Section 22: ALL;
Section 27: Lot 1,3,7,8,10,13,15;
Section 27: W2NE,NW;
Section 28: Lot 1,3;
Section 28: N2,SW,N2SE;

The following lands are subject to Exhibit WR-CSU-03 to protect the black-footed ferret reintroduction area:
T.0030N., R.0990W., 6TH PM
Section 21: ALL;

Section 22: ALL;
Section 27: Lot 1,3;
Section 27: W2NE,NW;
Section 28: N2;

The following lands are subject to Exhibit WR-CSU-05 to protect bald eagle nest, roosts and perch habitat:
T.0030N., R.0990W., 6TH PM
Section 27: Lot 7,8,10,15;

The following lands are subject to Exhibit WR-TL-03 to protect the nests of ferruginous hawks:
T.0030N., R.0990W., 6TH PM
Section 21: E2NE,SWNW,SW,SWSE;
Section 22: N2,N2S2,S2SE;
Section 27: Lot 1,3,7,8;
Section 27: W2NE;
Section 28: Lot 1;
Section 28: W2NE,W2,NWSE;

The following lands are subject to Exhibit WR-NSO-02 to protect special status raptor nests
T.0030N., R.0990W., 6TH PM
Section 21: N2N2
Section 22: N2NE;
Section 28: NW;NWSW;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0030N., R.0990W., 6TH PM
Section 21: NE,E2NW;
Section 27: Lot 1,3,7,8,10,13,15;
Section 27: W2NE,S2NW;
Section 28: Lot 1,3;
Section 28: S2NE,N2SE;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0030N., R.0990W., 6TH PM
Section 21: NE;
Section 27: Lot 3,7,8,13,15;
Section 27: SWNE,SWNW;
Section 28: Lot 3;
Section 28: SENE,NESE;

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:
T.0030N., R.0990W., 6TH PM
Section 21: ALL
Section 22: S2NW, SW, SWSE;

Section 27: Lot 1,13;
Section 27: W2NE,NW;
Section 28: Lot 1;
Section 28: N2,SW,N2SE;

The following lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern:
T.0030N., R.0990W., 6TH PM
Section 27: Lot 7,8,10,15;

BLM; CON: WRFO

PARCEL ID: 6758

T.0030N., R.0990W., 6TH PM
Section 31: Lot 5,6,9,11,31,33;
Section 31: N2NE,NENW;
Section 32: Lot 13,15,22,25,26;
Section 32: N2N2,SWSE;
Section 33: Lot 2,6,8,19,21,22;
Section 33: Lot 29,31,33;
Section 33: NWNW,E2SE;
Section 34: Lot 2,4,6,9;
Section 34: S2N2,S2;

Rio Blanco County
Colorado 1464.430 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

All lands are subject to Exhibit WR-TL-08 to protect big game severe winter range.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0030N., R.0990W., 6TH PM
Section 31: Lot 5,6,9,11,31,33;
Section 31: N2NE;
Section 32: Lot 13,15,22;
Section 32: N2N2;
Section 33: Lot 2,6,8,21,29,31;
Section 33: NWNW,NESE;

Section 34: Lot 2,4,9;
Section 34: S2NE,S2SW;

The following lands are subject to Exhibit WR-CSU-05 to protect bald eagle nest, roosts and perch habitat:
T.0030N., R.0990W., 6TH PM
Section 32: Lot 15;
Section 33: Lot 2;

The following lands are subject to Exhibit WR-TL-03 to protect the nests of ferruginous hawks:
T.0030N., R.0990W., 6TH PM
Section 31: N2NE, NENW;
Section 33: Lot 8;
Section 33: NWNW;

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:
T.0030N., R.0990W., 6TH PM
Section 31: Lot 5,6,9,11,31,33;
Section 31: N2NE,NENW;
Section 32: Lot 13,15,22,25,26;
Section 32: N2N2,SWSE;
Section 33: Lot 2,6,8,19,21,22;
Section 33: Lot 29,31,33;
Section 33: NWNW,E2SE;
Section 34: Lot 2,4,6,9;
Section 34: S2N2,S2;

The following lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern:
T.0030N., R.0990W., 6TH PM
Section 32: Lot 13,15;
Section 33: Lot 2;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0030N., R.0990W., 6TH PM
Section 32: N2NE,N2NW;SWSE;
Section 32: Lot 13, 15,25;
Section 33: NWNW;
Section 33: Lot 2,21;
Section 34: SWNW;
Section 34: Lot 6,9

BLM; CON: WRFO

PARCEL ID: 6759

T.0030N., R.0990W., 6TH PM
Section 19: Lot 5-8;
Section 19: E2,E2W2;
Section 20: ALL;
Section 29: ALL;
Section 30: Lot 5-8;
Section 30: E2,E2W2;

Rio Blanco County
Colorado 2509.120 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

All lands are subject to Exhibit WR-LN-01 to alert lessee of potential requirements for protection of prairie dog towns.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0030N., R.0990W., 6TH PM
Section 19: ALL;
Section 20: S2NE,NENW,S2NW,S2;
Section 29: ALL;
Section 30: ALL;

The following lands are subject to Exhibit WR-CSU-03 to protect the black-footed ferret reintroduction area:
T.0030N., R.0990W., 6TH PM
Section 19: Lot 5-8;
Section 19: E2,E2W2;
Section 20: ALL;
Section 29: NE,N2NW;
Section 30: N2NE;

The following lands are subject to Exhibit WR-TL-03 to protect the nests of ferruginous hawks:
T.0030N., R.0990W., 6TH PM
Section 19: S2NE,E2SW,SE;
Section 20: S2N2,S2;
Section 29: ALL;
Section 30: E2,E2W2;
Section 30: Lot 6,7;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0030N., R.0990W., 6TH PM

Section 19: Lot 8;
Section 19: N2NE,SESW,S2SE;
Section 20: NWNW,SWSW;
Section 29: W2NW,S2SW,SWSE;
Section 30: Lot 5;
Section 30: NE,NENW;

The following lands are subject to Exhibit WR-TL-06 to protect sage-grouse nesting habitat:
T.0030N., R.0990W., 6TH PM

Section 19: Lot 5-8;
Section 19: NE,E2W2,N2SE,SWSE;
Section 20: W2NW;
Section 30: Lot 5;
Section 30: NENW;

The following lands are subject to Exhibit WR-TL-08 to protect big game severe winter range:
T.0030N., R.0990W., 6TH PM

Section 19: Lot 6-8;
Section 19: E2,E2W2;
Section 20: ALL;
Section 29: ALL;
Section 30: Lot 5-8;
Section 30: E2,E2W2;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0030N., R.0990W., 6TH PM

Section 19: Lot 8;
Section 19: SESE;
Section 29: NWNW,SESW,SWSE;
Section 30: Lot 5;
Section 30: NENE;

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:
T.0030N., R.0990W., 6TH PM

Section 19: Lot 5-8;
Section 19: E2, E2W2
Section 20: ALL;
Section 29: ALL;
Section 30: Lot 5-8;
Section 30: E2,E2W2;

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

T.0030N., R.0990W., 6TH PM
Section 19: N2NE;
Section 20: NW;W2NE;NWSE;NESW;NENE;
Section 29: N2,N2S2;

BLM; CON: WRFO

PARCEL ID: 6760

T.0010S., R.0970W., 6TH PM
Section 8: NWNE,SENE,NW;
Section 8: W2SW,SESW,SESE;

Rio Blanco County
Colorado 400.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

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-TL-08 to protect big game severe winter range.

The following lands are subject to Exhibit WR-NSO-09 to protect remnant vegetation associations:
T.0001S., R.097W., 6th PM
Section 8: SESE.

The following lands are subject to Exhibit WR-NSO-08 to protect threatened and endangered plant species:
T.0010S., R.0970W., 6TH PM
Section 8: NWNE,SENE,NW;
Section 8: W2SW,SESW,SESE;

BLM; CON: WRFO

PARCEL ID: 6761

T.0010S., R.0970W., 6TH PM

Section 6: Lot 6,7;
Section 6: E2SW,SE;
Section 7: Lot 2-4;
Section 7: E2,SENW,E2SW;

Rio Blanco County
Colorado 884.180 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

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-TL-08 to protect big game severe winter range.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0010S., R.0970W., 6TH PM
Section 6: Lot 6;

The following lands are subject to Exhibit WR-TL-04 to protect raptors
T.0010S., R.0970W., 6TH PM
Section 6: Lot 6,7;
Section 6: NESW,SESW;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0010S., R.0970W., 6TH PM
Section 6: Lot 6;
Section 6: NESW;

The following lands are subject to Exhibit WR-NSO-08 to protect threatened and endangered plant species:
T.0010S., R.0970W., 6TH PM
Section 6: NESW, SE
Section 7: Lot 3,4;
Section 7: NE,E2SW,SE;

BLM; CON: WRFO

PARCEL ID: 6763

T.0040S., R.1000W., 6TH PM
Section 27: ALL;
Section 34: Lot 1-4;
Section 34: N2,N2S2;

Rio Blanco County
Colorado 1275.160 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

All lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range.

All lands are subject to Exhibit WR-TL-06 to protect sage-grouse nesting habitat.

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.1000W., 6TH PM
Section 27: ALL;
Section 34: Lot 1-4;
Section 34: N2,SW,N2SE,SESE;

The following lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat:
T.0040S., R.1000W., 6TH PM
Section 27: N2,N2SW;

PVT/BLM; CON: WRFO

PARCEL ID: 6764

T.0030N., R.0980W., 6TH PM
Section 5: Lot 5-8;
Section 5: S2N2,S2;
Section 7: Lot 5-8;
Section 7: E2,E2W2;

Moffat County
Colorado 1254.480 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

All lands are subject to Exhibit WR-LN-01 to alert lessee of potential requirements for protection of prairie dog towns.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0030N., R.0980W., 6TH PM
Section 5: Lot 5-6;
Section 5: SE,SENW,SW,N2SE,SWSE;
Section 7: Lot 6-8;
Section 7: E2,E2W2;

The following lands are subject to Exhibit WR-CSU-03 to protect the black-footed ferret reintroduction area:
T.0030N., R.0980W., 6TH PM
Section 5: Lot 6,7,8;
Section 5: SWNE,S2NW,SW;
Section 7: Lot 5-8;
Section 7: NE,E2W2,N2SE,SWSE;

The following lands are subject to Exhibit WR-TL-03 to protect the nests of ferruginous hawks:
T.0030N., R.0980W., 6TH PM
Section 5: Lot 6-8;
Section 5: S2NW,S2;
Section 7: Lot 5-8;
Section 7: E2,E2W2;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0030N., R.0980W., 6TH PM
Section 5: Lot 5;
Section 7: Lot 7,8;
Section 7: E2NE;SESW;
The following lands are subject to Exhibit WR-TL-08 to protect big game severe winter range:
T.0030N., R.0980W., 6TH PM
Section 5: Lot 5-8;
Section 5:S2N2,SW,N2SE,SWSE;
Section 7: All;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0030N., R.0980W., 6TH PM

Section 5: SWSW;
Section 7: NENE;

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:
T.0030N., R.0980W., 6TH PM
Section 5: Lot 5-8;
Section 5: S2N2,S2;
Section 7: Lot 5-8;
Section 7: E2,E2W2;

The following lands are subject to Exhibit WR-NSO-02 to protect special status raptor nests:
T.0030N., R.0980W., 6TH PM
Section 5: Lot 5,6;
Section 5: S2NE;

The following lands are subject to Exhibit WR-TL-01 to protect special status raptors
T.0030N., R.0980W., 6TH PM
Section 5: Lot 5-7;
Section 5: S2NE;SENW;N2SE;NESW;
Section 7: NE,E2NW,NESW,N2SE;

BLM; CON: WRFO

PARCEL ID: 6765

T.0050S., R.1010W., 6TH PM
Section 7: E2SE;
Section 17: ALL;
Section 18: Lot 5,8,9,12;
Section 18: E2,E2SW;
Section 19: E2,E2W2;
Section 20: ALL;

Garfield County
Colorado 2400.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

All lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range.

All lands are subject to Exhibit WR-CSU-01 to protect fragile soils.

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

The following lands are subject to Exhibit WR-NSO-01 to protect potential landslide areas:
T.0050S., R.1010W., 6TH PM
Section 7: E2SE;
Section 18: N2NE;
Section 20: E2SE;

The following lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern:
T.0050S., R.1010W., 6TH PM
Section 7: E2SE;
Section 17: ALL;
Section 18: E2NE,SESW,SE;
Section 19: E2,E2W2;
Section 20: ALL;

The following lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat:
T.0050S., R.1010W., 6TH PM
Section 7: E2SE;
Section 17: ALL;
Section 18: E2NE,SESW,SE;
Section 19: E2,E2W2;
Section 20: ALL;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0050S., R.1010W., 6TH PM
Section 18: Lot 5,8,9,12,
Section 18: SWNE, E2SW, W2SE;
Section 19: NENW, NWNE;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0050S., R.1010W., 6TH PM
Section 18: Lot 8,9,12,
Section 18: E2SW;

BLM; CON: WRFO

PARCEL ID: 6766

T.0050S., R.1010W., 6TH PM
Section 23: ALL;
Section 24: W2E2,W2;

Garfield County
Colorado 1120.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

All lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat

All lands are subject to Exhibit WR-CSU-01 to protect fragile soils.

All lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range.

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

The following lands are subject to Exhibit WR-NSO-01 to protect potential landslide areas:
T.0050S., R.1010W., 6TH PM
Section 23: ALL;

The following lands are subject to Exhibit WR-CSU-2 to protect areas of critical environmental concern:
T.0050S., R.1010W., 6TH PM
Section 23: NWNE,S2NE,NW,S2;
Section 24: W2E2,W2;

BLM; CON: WRFO

PARCEL ID: 6767

T.0050S., R.0990W., 6TH PM
Section 4: Lot 5-11;
Section 4: SWNE,S2NW,SW,W2SE;
Section 9: Lot 1,2,6;
Section 9: W2NE,NW,NENESW;
Section 9: W2NESW,W2SW,W2SESW;
Section 9: N2NWSE,SENWSE;

Garfield County
Colorado 1043.300 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

All lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range.

All lands are subject to Exhibit WR-TL-06 to protect sage-grouse nesting habitat.
All lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values.

The following lands are subject to Exhibit WR-NSO-04 to protect sage-grouse leks:
T.0050S., R.0990W., 6TH PM
Section 4: Lot 5,8;
Section 4: SWNW,SW,SWSE;
Section 9: Lot 1,2,6;
Section 9: W2NE,NW,NENESW;
Section 9: W2NE,NW,NENESW,W2NESW,W2SW,W2SESW;
Section 9: N2NWSE,SENWSE;

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0050S., R.0990W., 6TH PM
Section 4: Lot 6-11;
Section 4: SWNE,S2NW,SW,W2SE;
Section 9: Lot 1,2,6;
Section 9: N2,W2SW,SESW,NESE;

PVT/BLM; CON: WRFO

PARCEL ID: 6768

T.0040S., R.1000W., 6TH PM
Section 13: Lot 1-12;
Section 13: W2;
Section 14: ALL;
Section 23: ALL;

Rio Blanco County
Colorado 1983.470 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

All lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat

All lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range.

All lands are subject to Exhibit WR-TL-06 to protect sage-grouse nesting habitat.

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.1000W., 6TH PM
Section 13: Lot 3-4,8,9;
Section 13: W2;
Section 14: ALL;
Section 23: W2,NE,NESE,W2SE,;

The following lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern:
T.0040S., R.1000W., 6TH PM
Section 13: Lot 3,4,6;
Section 13: N2NW,SWNW;
Section 14: N2;

The following lands are subject to Exhibit WR-NSO-09 to protect sensitive plants:
T.0040S., R.1000W., 6TH PM
Section 13: E2NW,SWNW;
Section 14: E2NE,N2NW;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0040S., R.1000W., 6TH PM
Section 13: Lot 2,3;
Section 13: N2NW;
Section 14: NW; W2NE; NENE;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0040S., R.1000W., 6TH PM
Section 14: N2NW; NWNE;

PVT/BLM; CON: WRFO

PARCEL ID: 6769

T.0040S., R.1000W., 6TH PM
Section 5: ALL;
Section 6: ALL;
Section 7: ALL;
Section 8: ALL;

Rio Blanco County
Colorado 2560.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

All lands are subject to Exhibit WR-CSU-01 to protect fragile soils.

All lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat.

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-02 to protect areas of critical environmental concern:
T.0040S., R.1000W., 6TH PM
Section 5: N2,N2SW,SWSW,NWSE;
Section 6: E2,SENW,NESW,S2SW;
Section 7: W2E2,W2;
Section 8: SWNE,SENW,N2SW,SESW,NWSE;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:
T.0040S., R.1000W., 6TH PM
Section 5: W2NW,W2SW,SE
Section 6: E2SE
Section 7: E2,SESW;
Section 8: ALL;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0040S., R.1000W., 6TH PM
Section 7: NESW,S2SW,SWSE;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0040S., R.1000W., 6TH PM
Section 7: S2SW;

PVT/BLM; CON: WRFO

PARCEL ID: 6770

T.0040S., R.1000W., 6TH PM
Section 3: SENE,W2,SE;
Section 4: ALL;
Section 9: ALL;
Section 10: ALL;

Rio Blanco County
Colorado 2440.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

All lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat

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

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range.:
T.0040S., R.1000W., 6TH PM
Section 3: NW,N2SW,SWSW;
Section 4: E2,E2NW,E2SW,SWSW;
Section 9: ALL;
Section 10: W2NW,S2SW,NESE,S2SE;

The following lands are subject to WR-TL-04 to protect raptors:
T.0040S., R. 1000W., 6TH PM
Section 10: E2SE;

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0040S., R.1000W., 6TH PM
Section 3: SENE,W2,N2SE,SESE;
Section 4: ALL;

Section 9: N2,NESW,S2SW,SE;
Section 10: NE,W2NW,SENW,S2;

The following lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern:
T.0040S., R.1000W., 6TH PM
Section 3: SENE,NW,E2SW,SE;
Section 4: N2N2,SENE,SWNW,SESW,W2SE;
Section 9: E2NW;
Section 10: ALL;

The following lands are subject to Exhibit WR-NSO-09 to protect BLM sensitive plants:
T.0040S., R.1000W., 6TH PM
Section 10: E2SE,

BLM; CON: WRFO

PARCEL ID: 6771

T.0040S., R.1000W., 6TH PM
Section 1: Lot 5-16;
Section 1: W2;
Section 2: ALL;
Section 11: ALL;

Rio Blanco County
Colorado 1975.560 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

All lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat.

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

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range.:
T.0040S., R.1000W., 6TH PM
Section 1: Lots 5,10-12,14-16;
Section 2: E2SW;W2SE,SESE;

Section 11: E2,E2NW,SENW,SW;

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0040S., R.1000W., 6TH PM
Section 1: Lot 5-16;
Section 1: W2;
Section 2: NENE,W2NE,W2,W2SE,SESE;
Section 11: ALL;

The following lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern:
T.0040S., R.1000W., 6TH PM
Section 1: Lot 5,6,10,11,14-16;
Section 1: W2;
Section 2: ALL;
Section 11: ALL;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0040S., R.1000W., 6TH PM
Section 11: SW,W2SE;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0040S., R.1000W., 6TH PM
Section 11: SW;

The following lands are subject to Exhibit WR-NSO-09 to protect BLM sensitive plants:
T.0040S., R.1000W., 6TH PM
Section 11: NENE, W2NE, SWNE, NWSE, NESW, W2SW

BLM; CON: WRFO

PARCEL ID: 6772

T.0040S., R.1000W., 6TH PM
Section 15: ALL;
Section 16: ALL;
Section 22: ALL;

Rio Blanco County
Colorado 1920.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

All lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat

All lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range.

All lands are subject to Exhibit WR-CSU-01 to protect fragile soils.

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

The following lands are subject to Exhibit WR-TL-06 to protect sage-grouse nesting habitat:
T.0040S., R.1000W., 6TH PM
Section 15: NE,SENW,S2;
Section 22: ALL;

The following lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern:
T.0040S., R.1000W., 6TH PM
Section 15: N2,SW;
Section 16: NE,NENW,S2NW,S2;

The following lands are subject to Exhibit WR-NSO-09 to protect sensitive plants:
T.0040S., R.1000W., 6TH PM
Section 15:W2NE,SENW;

The following lands are subject to WR-TL-04 to protect raptors:
T.0040S., R.1000W., 6TH PM
Section 15: E2NE;

PVT/BLM; CON: WRFO

PARCEL ID: 6773

T.0040S., R.1000W., 6TH PM
Section 17: ALL;
Section 18: ALL;
Section 19: ALL;
Section 20: W2;

Rio Blanco County
Colorado 2240.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

All lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat

All lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range.

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.1000W., 6TH PM
Section 17: NWNE,W2,SE;
Section 18: ALL;
Section 19: W2NE,SENE,W2,SE;
Section 20: W2;

The following lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern:
T.0040S., R.1000W., 6TH PM
Section 17: S2NW,NWSW,SESE;
Section 18: W2E2,W2;
Section 19: NWNE,S2NE,NW,S2;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0040S., R.1000W., 6TH PM
Section 18: NW, W2NE;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0040S., R.1000W., 6TH PM
Section 18: N2NW;

PVT/BLM; CON: WRFO

PARCEL ID: 6774

T.0040S., R.1000W., 6TH PM
Section 25: Lot 1-12;
Section 25: W2;
Section 26: ALL;
Section 35: Lot 1-4;

Section 35: N2,N2S2;

Rio Blanco County
Colorado 1989.720 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

All lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range.

All lands are subject to Exhibit WR-TL-06 to protect sage-grouse nesting habitat.

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.1000W., 6TH PM
Section 25: Lot 2-6,8-12;
Section 25: W2;
Section 26: ALL;
Section 35: Lot 1-4;
Section 35: W2NE,SENE,W2,SE;

The following lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat:
T.0040S., R.1000W., 6TH PM
Section 26: NW;

PVT/BLM; CON: WRFO

PARCEL ID: 6775

T.0040S., R.1000W., 6TH PM
Section 36: Lot 1-14;
Section 36: NW,N2SW;

Rio Blanco County
Colorado 706.580 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

All lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range.

All lands are subject to Exhibit WR-TL-06 to protect sage-grouse nesting habitat.

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.1000W., 6TH PM
Section 36: Lot 1-14;
Section 36: NE,N2NW,SENW,W2SW,SESW,SE;

BLM; CON: WRFO

PARCEL ID: 6776

T.0040S., R.1010W., 6TH PM
Section 3: ALL;
Section 4: ALL;
Section 9: S2;
Section 10: ALL;
Section 18: E2NE,SWNE,NW;

Rio Blanco County
Colorado 2520.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

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
Section 3: NE, E2NW,NESW,S2SW,SE;
Section 4: W2NE,W2,W2SE,SESE;

Section 9: S2;
Section 10: ALL;
Section 18: E2NE,SWNE,NW;

The following lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat:
T.0040S., R.1010W., 6TH PM
Section 3: S2, SENE;
Section 4: SESE;
Section 9: SE;
Section 10: ALL;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:
T.0040S., R.1010W., 6TH PM
Section 3: ALL;
Section 4: ALL;
Section 9: ALL;
Section 10: N2,SW, W2SE;
Section 18: SENE,NW;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests
T.0040S., R.1010W., 6TH PM
Section 18: SWNE; NENE;

The following lands are subject to Exhibit WR-TL-04 to protect raptors
T.0040S., R.1010W., 6TH PM
Section 9: S2SE;
Section 10: S2SW;
Section 18: E2NW; E2NE; SWNE;

The following lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern:
T.0040S., R.1010W., 6TH PM
Section 3:SENE,S2;
Section 4: E2SE
Section 9: SE;
Section 10:ALL;

BLM; CON: WRFO

PARCEL ID: 6777

T.0040S., R.1010W., 6TH PM
Section 15: ALL;
Section 16: W2NE,E2SE;

Section 21: ALL;

Rio Blanco County
Colorado 1440.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

All lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0040S., R.1010W., 6TH PM
Section 15: N2,W2SW,SE;
Section 16: W2NE,E2SE;
Section 21: ALL;

The following lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern:
T.0040S., R.1010W., 6TH PM
Section 15: NE,W2NW;
Section 16: W2NE,E2SE;
Section 21: NW,S2;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0040S., R.1010W., 6TH PM
Section 15: W2W2;
Section 16: W2NE,E2SE;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:
T.0040S., R.1010W., 6TH PM
Section 15: S2,SWNE,W2NW;
Section 16: W2NE,E2SE;
Section 21: ALL;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0040S., R.1010W., 6TH PM
Section 15: W2NW,NWSW;
Section 16: NWNE,NESE;

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:
T.0040S., R.1010W., 6TH PM

Section 15: ALL;
Section 16: W2NE, E2SE;
Section 21: All

PVT/BLM; CON: WRFO

PARCEL ID: 6778

T.0010N., R.1030W., 6TH PM
Section 17: NESW;
Section 30: E2,E2W2;

Rio Blanco County
Colorado 520.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

All lands are subject to Exhibit WR-NSO-08 to protect threatened and endangered plant species.

All lands are subject to Exhibit WR-CSU-01 to protect fragile soils.

All lands are subject to Exhibit WR-TL-08 to protect big game severe winter range.

The following lands are subject to Exhibit WR-TL-05 to protect bald eagle winter roosts and concentration areas:
T.0010N., R.1030W., 6TH PM
Section 17: NESW;

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:
T.0010N., R.1030W., 6TH PM
Section 17: NESW;
Section 30: E2,E2W2;

The following lands are subject to Exhibit WR-NSO-05 to protect bald eagle roosts:
T.0010N., R.1030W., 6TH PM
Section 17: NESW;

BLM; CON: WRFO

PARCEL ID: 6779

T.0050S., R.1010W., 6TH PM
Section 10: SW;
Section 15: NENW,W2W2,SESW;
Section 16: ALL;
Section 21: ALL;
Section 22: ALL;

Garfield County
Colorado 2320.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

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-CSU-01 to protect fragile soils.

The following lands are subject to Exhibit WR-NSO-01 to protect potential landslide areas:
T.0050S., R.1010W., 6TH PM
Section 10: SW;
Section 15: N2NW,SWNW,NWSW,SESW;
Section 16: SENE,N2NW,SESW,SE;
Section 21: NE,NENW,S2NW,SW,W2SE;
Section 22: NE,E2NW,SW,E2SE;

The following lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern:
T.0050S., R.1010W., 6TH PM
Section 10: SW;
Section 15: NENW,W2W2,SESW;
Section 16: ALL;
Section 21: N2,SW,W2SE;
Section 22: N2;

The following lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat:
T.0050S., R.1010W., 6TH PM
Section 10: SW;

Section 15: NENW,W2W2,SESW;
Section 16: ALL;
Section 21: N2,SW,W2SE
Section 22: N2

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:
T.0050S., R.1010W., 6TH PM
Section 10: SW;
Section 15: NENW,W2W2,SESW;
Section 16: ALL;
Section 21: N2,SW,W2SE;
Section 22: N2;

The following lands are subject to Exhibit GJ-3JA to protect steep slopes in excess of 40%:
T.0050S., R.1010W., 6TH PM
Section 21: S2NE,SE;
Section 22: S2N2,N2S2,SWSW;

The following lands are subject to Exhibit GJ-7BE to protect perennial streams with a 100 foot buffer zone:
T.0050S., R.1010W., 6TH PM
Section 21: SENE,NESE;

BLM; CON: WRFO

PARCEL ID: 6781

T.0050S., R.0990W., 6TH PM
Section 5: Lot 5-8;
Section 5: S2N2,S2;
Section 6: Lot 9-16;
Section 6: S2NE,SENW,E2SW,SE;
Section 7: Lot 5-7;
Section 7: NE,E2NW,NESW;
Section 7: E2E2SESW,W2E2NWSE;
Section 7: W2NWSE,SWSE;
Section 7: W2E2SESE,W2SESE;
Section 8: N2,NESW,E2E2NWSW;
Section 8: E2E2SESW,SE;

Garfield County
Colorado 2405.180 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

All lands are subject to Exhibit WR-CSU-01 to protect fragile soils.

All lands are subject to Exhibit WR-TL-06 to protect sage-grouse nesting habitat.

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range.:
T.0050S., R.0990W., 6TH PM
Section 5:Lot 5-8;
Section 5: S2N2,S2;
Section 6: Lot9,10,15,16;
Section 6: S2NE, SENW,N2SE,SESE;
Section 7: NENE;
Section 8: N2,NESW,N2SE,SESE;

The following lands are subject to Exhibit WR-NSO-04 to protect sage-grouse leks:
T.0050S., R.0990W., 6TH PM
Section 5: Lot 5-8;
Section 5: S2N2,S2;
Section 6: Lot 9,10,15,16;
Section 6: S2NE,SENW,N2SE,SESE;
Section 7: NENE;
Section 8: N2,NESW,N2SE,SESE;

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:
T.0050S., R.0990W., 6TH PM
Section 5: Lot 5-8;
Section 5: S2N2,S2;
Section 6: Lot 9-16;
Section 6: S2NE,SENW,E2SW,SE;
Section 7: NENE;
Section 8: N2,NESW,E2E2NWSW;
Section 8: E2E2SESW,SE;

PVT/BLM; CON: GJFO

PARCEL ID: 6782

T.0040S., R.1000W., 6TH PM
Section 24: Lot 1-12;
Section 24: W2;

Rio Blanco County
Colorado 715.480 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

All lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range.

All lands are subject to Exhibit WR-TL-06 to protect sage-grouse nesting habitat.

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.1000W., 6TH PM
Section 24: Lot 7-12;
Section 24: NW,N2SW;

The following lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern:
T.0040S., R.1000W., 6TH PM
Section 24: Lot 1-8;
Section 24: SWNW,NWSW;

The following lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat:
T.0040S., R.1000W., 6TH PM
Section 24: Lot 1-8;
Section 24: NW,NWSW;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests
T.0040S., R.1000W., 6TH PM
Section 24: E2SW;
Section 24: Lot 9, 10;

The following lands are subject to Exhibit WR-TL--04 to protect raptors
T.0040S., R.1000W., 6TH PM
Section 24: SW;
Section 24: Lot 9, 10;

PVT/BLM; CON: WRFO

PARCEL ID: 6783

T.0010S., R.0970W., 6TH PM
Section 15: E2SE;
T.0010N., R.0970W., 6TH PM
Section 33: Lot 3,4;
Section 33: N2S2;

Rio Blanco County
Colorado 294.130 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

All lands are subject to Exhibit WR-TL-08 to protect big game severe winter range.

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

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0010S., R.0970W., 6TH PM
Section 15: E2SE;

The following lands are subject to Exhibit WR-TL-01 to protect the nests of threatened, endangered, or candidate raptors:
T.0010N., R.0970W., 6TH PM
Section 33: Lot 3;

BLM; CON: WRFO

PARCEL ID: 6790

T.0010N., R.1040W., 6TH PM
Section 23: N2NWSE;
Section 24: Lot 2,3,5,9,10;
Section 24: W2NE,NWSE;
Section 25: Lot 5-8,10,11;
Section 26: SWNW, W2SW,SESW,S2SE;
Section 26: Lot 4,6-8;

Section 27: Lot 3,4;

Rio Blanco County
Colorado 636.570 Acres

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

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

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0010N., R.1040W., 6TH PM
Section 24: Lot 2,3,5;
Section 25: Lot 5,8,10;
Section 26: Lot 4,6-8;
Section 26: SWNW, W2SW,SESW,S2SE;
Section 27: Lot 3,4;

The following lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern:
T.0010N., R.1040W., 6TH PM
Section 24: Lot 5,9;
Section 25: Lot 7;
Section 26: Lot 4,8;
Section 26: SWNW,NWSW;
Section 27: Lot 3;

The following lands are subject to Exhibit WR-CSU-05 to protect bald eagle nest, roosts and perch habitat:
T.0010N., R.1040W., 6TH PM

Section 25: Lot 10;
Section 26: Lot 4, 8;
Section 27: Lot 3;

The following lands are subject to Exhibit WR-TL-05 to protect bald eagle winter roosts and concentration areas:
T.0010N., R.1040W., 6TH PM
Section 24: Lot 5,,9,10;
Section 24: NWSE;
Section 25: Lot 5,610;

The following lands are subject to Exhibit WR-TL-08 to protect big game severe winter range:
T.0010N., R.1040W., 6TH PM
Section 24: Lot 2,3,5,9,10;
Section 24: NWSE

Section 25: Lot7,10,11;
Section 26: Lot 3,4, 8;
Section 26: SWNW,NWSW,S2S2;
Section 27: Lot 3,4;

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:
T.0010N., R.1040W., 6TH PM
Section 23: N2NWSE:
Section 24: Lot 2,3,5,9;
Section 25: Lot 5-8, 10, 11;
Section 26: Lot 4,6-8;
Section 26: SWNW, W2SW,SESW,S2SE;
Section 27: Lot 3,4;

The following lands are subject to Exhibit WR-NSO-05 to protect bald eagle roosts:
T.0010N., R.1040W., 6TH PM
Section 25: Lot 5,6,10;

The following lands are subject to Exhibit WR-NSO-08 to protect threatened and endangered plant species:
T.0010N., R.1040W., 6TH PM
Section 24: Lot 2,3,5,9
Section 25: Lot 5-7
Section 26: Lot 4,8
Section 26: SWNW,NWSW,S2S2
Section 27: Lot 3,4

BLM; CON: WRFO

PARCEL ID: 6812

T.0050S., R.1010W., 6TH PM
Section 18: SENW;

Garfield County
Colorado 40.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

All lands are subject to Exhibit WR-CSU-01 to protect fragile soils.

All lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range.

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 WR-TL-04 to protect raptors:
T.0050S., R.1010W., 6TH PM
Section 18: SENW;

BLM; CON: WRFO

PARCEL ID: 6813

T.0010N., R.1020W., 6TH PM
Section 20: ALL;

Rio Blanco County
Colorado 640.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

All lands are subject to Exhibit WR-TL-08 to protect big game severe winter range.

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

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0010N., R.1020W., 6TH PM
Section 20: NW,N2SW;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0010N., R.1020W., 6TH PM
Section 20: W2NW,NWSW;

BLM; CON: WRFO

PARCEL ID: 6814

T.0030N., R.0960W., 6TH PM
Section 1: NWSW,S2SW,SWSE;
Section 3: Lot 16,17,20,26;
Section 3: SENE,NESE,S2SE;

Moffat County
Colorado 345.890 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

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

The following lands are subject to Exhibit WR-TL-06 to protect sage-grouse nesting habitat:
T.0030N., R.0960W., 6TH PM
Section 1: NWSW,SWSE;
Section 3: Lot 17;
Section 3: SENE,E2SE,SWSE.

The following lands are subject to Exhibit WR-TL-04 to protect raptor nests
T.0030N., R.0960W., 6TH PM
Section 3: SENE;

The following areas are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0030N., R.0960W., 6TH PM
Section 1: NWSW,S2SW,SWSE;

PVT/BLM; CON: WRFO

PARCEL ID: 6815

T.0030S., R.0990W., 6TH PM
Section 13: SE;
Section 24: ALL;

Rio Blanco County
Colorado 800.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

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-CSU-01 to protect fragile soils.

The following lands are subject to Exhibit WR-TL-06 to protect sage-grouse nesting habitat:
T.0030S., R.0990W., 6TH PM
Section 24: S2NE,SESW,SE;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0030S., R.0990W., 6TH PM
Section 24: W2NW,NWSW;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0030S., R.0990W., 6TH PM
Section 24: SWNW,NWSW;

BLM; CON: WRFO

PARCEL ID: 6816

T.0040N., R.0960W., 6TH PM
Section 25: W2NW,NWSW,NESE;
Section 26: NE,W2,N2SE,SWSE;
Section 27: E2,NENW,W2W2;
Section 34: E2,SENW,E2SW;
Section 35: Lot 1,3,5,10,12,14,22;
Section 35: NWNE,N2NW,S2SE;

Moffat County
Colorado 2079.220 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

All lands are subject to Exhibit WR-CSU-01 to protect fragile soils.

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:
T.0040N., R.0960W., 6TH PM
Section 25: W2NW;
Section 26: N2,SW,W2SE;
Section 27: E2,NENW,W2W2;
Section 34: NE,NWSE;
Section 35: N2NW;

The following lands are subject to Exhibit WR-TL-06 to protect sage grouse nesting habitat:
T.0040N., R.0960W., 6TH PM
Section 25: NESE;
Section 35: Lot 10,12,14,22;
Section 35: S2SE;

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:
T.0040N., R.0960W., 6TH PM
Section 25: W2NW,NWSW,NESE;
Section 26: NE,W2,N2SE,SWSE;
Section 27: E2,NENW,W2W2;
Section 35: Lot 1,3,5,10,12,14,22;
Section 35: NWNE,N2NW,S2SE;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0040N., R.0960W., 6TH PM
Section 34: NE,SENW,E2SW,SE;
Section 35: Lot 1,3,5,12,14,22;
Section 35: NWNE,N2NW;SWSE;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0040N., R.0960W., 6TH PM
Section 34: SE;
Section 35: Lot 1,3,5,14;
Section 35: N2NW;

PVT/BLM; CON: WRFO

PARCEL ID: 6817

T.0040N., R.0960W., 6TH PM
Section 20: SWNW,S2;

Section 28: E2E2,NW,W2SW,SWSE;
Section 29: ALL;
Section 32: ALL;
Section 33: Lot 1,4,5,8;
Section 33: E2,SESW;

Moffat County
Colorado 2520.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

The following lands are subject to Exhibit WR-CSU-01 to protect fragile:
T.0040N., R.0960W., 6TH PM
Section 20: SWNW,W2SW,SWSE,SE;
Section 28: NW,E2SE;
Section 29: ALL;
Section 32: ALL;
Section 33: Lot 1,4,5,8;
Section 33: E2,SESW;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:
T.0040N., R.0960W., 6TH PM
Section 20: SWNW,S2;
Section 28:E2E2,NW,W2SW,SWSE;
Section 29:N2,N2SW,SE;
Section 32: N2NE, SENE;
Section 33: NE;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0040N., R.0960W., 6TH PM
Section 28: S2SE;
Section 33: Lot 1, 4, 5;
Section 33: E2; SESW;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0040N., R.0960W., 6TH PM
Section 33: Lot 4;
Section 33: NE; S2SE;

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

T.0040N., R.0960W., 6TH PM
Section 20: SWNW,S2;
Section 28: E2E2,NW,W2SW,SWSE;
Section 29: ALL;
Section 32: ALL;
Section 33: Lot 1,4,5,8;
Section 33: E2,SESW;

BLM; CON: WRFO

PARCEL ID: 6818

T.0040S., R.0990W., 6TH PM
Section 30: Lot 1-4;
Section 30: E2,E2W2;

Garfield County
Colorado 641.520 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

All lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range.

All lands are subject to Exhibit WR-TL-06 to protect sage-grouse nesting habitat.

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.0990W., 6TH PM
Section 30: Lot 1-3;
Section 30: E2,E2W2;

PVT/BLM; CON: WRFO

PARCEL ID: 6819

T.0040S., R.0990W., 6TH PM
Section 29: ALL;

Section 31: Lot 1-4;
Section 31: E2,E2W2;
Section 32: ALL;

Garfield County
Colorado 1920.080 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

All lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range.

All lands are subject to Exhibit WR-TL-06 to protect sage-grouse nesting habitat.

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

The following lands are subject to Exhibit WR-NSO-04 to protect sage-grouse leks:
T.0040S., R.0990W., 6TH PM
Section 31: Lot 2-4;
Section 31: E2,E2W2;
Section 32: SWNE,W2NW,SENW,S2.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0040S., R.0990W., 6TH PM
Section 29: ALL;
Section 31: Lot 1-4;
Section 31: N2NE, SENE,W2,N2SE,SWSE;
Section 32: ALL;

BLM; CON: WRFO

PARCEL ID: 6820

T.0040S., R.0990W., 6TH PM
Section 28: ALL;
Section 33: ALL;
Section 34: N2N2SW,N2N2S2N2SW;

Garfield County
Colorado 1330.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

All lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range.

All lands are subject to Exhibit WR-CSU-01 to protect fragile soils.

All lands are subject to Exhibit WR-TL-06 to protect sage-grouse nesting habitat.

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

The following lands are subject to Exhibit WR-NSO-04 to protect sage-grouse leks:
T.0040S., R.0990W., 6TH PM
Section 28: S2NE,S2;
Section 33: N2,NESW,W2SW,SE;
Section 34: N2N2SW,N2N2S2N2SW;

BLM; CON: WRFO

PARCEL ID: 6821

T.0040S., R.0990W., 6TH PM
Section 27: W2E2E2,W2E2,W2;
Section 34: W2NENE,W2NE,SENE,NW;
Section 34: NWNESE,N2N2SWNESE;
Section 34: N2NWSE,N2N2S2NWSE;

Garfield County
Colorado 897.500 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

All lands are subject to Exhibit WR-TL-06 to protect sage-grouse nesting habitat.

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

All the lands are subject to Exhibit WR-CSU-01 to protect fragile soils.

All lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range.

The following lands are subject to Exhibit WR-NSO-04 to protect sage-grouse leks:
T.0040S., R.0990W., 6TH PM
Section 27: NWSW,S2SW
Section 34: NWNE, S2NE, NW;
Section 34: NWNESE,N2N2SWNESE;
Section 34: N2NWSE,N2N2S2NWSE;

PVT/BLM; CON: WRFO

PARCEL ID: 6822

T.0040S., R.0990W., 6TH PM
Section 19: Lot 1-4;
Section 19: NE,E2W2;

Garfield County
Colorado 482.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

All lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range.

All lands are subject to Exhibit WR-TL-06 to protect sage-grouse nesting habitat.

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-06 to protect Colorado River cutthroat trout habitat:
T.0040S., R.0990W., 6TH PM
Section 19: Lot 1-2
Section 19: NENW;

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0040S., R.0990W., 6TH PM
Section 19: Lot 2-4;
Section 19: NE,S2NW,E2SW;

PVT/BLM; CON: WRFO

PARCEL ID: 6823

T.0040S., R.0990W., 6TH PM
Section 8: SW;
Section 17: W2;
Section 18: Lot 1-4;
Section 18: E2,E2W2;

Rio Blanco County
Colorado 1121.500 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

All lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range.

All lands are subject to Exhibit WR-TL-06 to protect sage-grouse nesting habitat.

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.0990W., 6TH PM
Section 8: S2SW;
Section 17: S2NW,N2SW;
Section 18: SENE,SWNW,SWSE;

The following lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern:
T.0040S., R.0990W., 6TH PM
Section 18: Lot 1-4;
Section 18: W2E2,E2W2;

The following lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat:
T.0040S., R.0990W., 6TH PM
Section 18: Lot 1-4;
Section 18: E2,E2W2;

PVT/BLM; CON: WRFO

PARCEL ID: 6833

T.0050S., R.1010W., 6TH PM
Section 28: W2NE,NW;
Section 29: E2NE,NWNE,N2NW;

Garfield County
Colorado 440.000 Acres
All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

All lands are subject to Exhibit WR-CSU-01 to protect fragile soils.

All lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat.

All lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range.

The following lands are subject to Exhibit GJ-3JA to protect steep slopes in excess of 40%:
T.0050S., R.1010W., 6TH PM
Section 28: NWNE,SWNW;

The following lands are subject to Exhibit WR-NSO-01 to protect potential landslide areas:
T.0050S., R.1010W., 6TH PM
Section 28: W2NE,NW;
Section 29: E2NE;
The following lands are subject to Exhibit WR-CSU-2 to protect areas of critical environmental concern:
T.0050S., R.1010W., 6TH PM
Section 28: W2NE,NW;
Section 29: N2N2,SENE;

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

T.0050S., R.1010W., 6TH PM
Section 28: W2NE,NW;
Section 29: E2NE,NWNE,N2NW

BLM; CON: WRFO

PARCEL ID: 6836

T.0040N., R.0960W., 6TH PM
Section 8: Lot 5-7;
Section 8: SE;
Section 9: Lot 7,8;
Section 9: SW;
Section 17: E2,S2NW,E2SW,NWSW;
Section 18: SENE,NESE,S2SE;
Section 19: Lot 7,8;
Section 19: E2,E2W2;

Moffat County
Colorado 1720.52 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

All lands are subject to Exhibit WR-CSU-01 to protect fragile soils.

The following lands are subject to Exhibit WR-TL-04 to protect raptor nesting and fledgling habitat:
T.0040N., R.0960W., 6TH PM
Section 8: SESE;
Section 9: S2SW;
Section 17: NENE;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0040N., R.0960W., 6TH PM
Section 9: S2SW;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:
T.0040N., R.0960W., 6TH PM
Section 8:Lots 5-7;
Section 8: SE;

Section9:Lot7,8;
Section 9: SW;
Section 17: E2,S2NW,E2SW,NWSW;;
Section 18: SENE,NESE,S2SE;;
Section 19: Lot 7;
Section 19: NE,E2NW,NESW,N2SE,SESE;

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:
T.0040N., R.0960W., 6TH PM
Section 8: Lot 5-7;
Section 8: SE;
Section 9: SW;
Section 17: E2,S2NW,E2SW,NWSW;
Section 18: SENE,NESE,S2SE;
Section 19: Lot 7,8;
Section 19: E2,E2W2:

BLM; CON: WRFO

PARCEL ID: 6837

T.0040N., R.0960W., 6TH PM
Section 21: N2,SW,N2SE,SESE;
Section 22: SW,S2SE;
Section 23: S2S2,NESE;
Section 30: Lot 5-8;
Section 30: E2,E2W2;
Section 31: Lot 5-8;
Section 31: E2,E2W2;

Moffat County
Colorado 2311.920 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis

All lands are subject to Exhibit WR-CSU-01 to protect fragile soils.

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:
T.0040N., R.0960W., 6TH PM

Section 21: N2,SW,N2SE,SESE;
Section 22: SW,S2SE;
Section 23: S2S2,NESE;
Section 30: E2NE,NESE;

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:
T.0040N., R.0960W., 6TH PM
Section 21: N2,SW,N2SE,SESE;
Section 22: SW,S2SE;
Section 23: S2S2,NESE;
Section 30: Lot 5-8;
Section 30: E2,E2W2;
Section 31: Lot 5-8;
Section 31: E2,E2W2;

BLM; CON: WRFO

Attachment A-1: Alternative 2 – Parcels Available for Lease

June 2014 – Colorado Competitive Oil and Gas Lease Sale

PARCEL ID: 6753

T.0030N., R.0980W., 6TH PM
Section 20: ALL;
Section 21: ALL;
Section 32: Lot 1,5;
Section 32: N2,E2SW,SE;
Section 34: Lot 1,3;
Section 35: Lot 1,3,9;

Rio Blanco County
Colorado 1993.950 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0030N., R.0980W., 6TH PM
Section 20: ALL;
Section 21: S2NE,W2NW,W2SW,SESW,W2SE,SESE;
Section 32: NE,N2NW,E2SW,N2SE;
Section 34: Lot 1,3;
Section 35: Lot 1,9;

The following lands are subject to Exhibit WR-TL-08 to protect big game severe winter range:
T.0030N., R.0980W., 6TH PM
Section 20: ALL;
Section 21NWNW,S2NW,S2;
Section 32: Lot 1,5;
Section 32: N2,E2SW,SE;
Section 34: Lot 1,3;
Section 35: Lot 1,3,9;

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

T.0030N., R.0980W., 6TH PM
Section 20: ALL;
Section 21: ALL;

Section 32: Lot 1,5;
Section 32: N2,E2SW,SE;

-02 to protect areas of critical environmental concern:
T.0030N., R.0980W., 6TH PM
Section 32: Lot 5;
Section 32: SESW;
Section 35: Lot 1,9;

The following lands are subject to Exhibit WR-CSU-05 to protect bald eagle nest, roosts and perch habitat:
T.0030N., R.0980W., 6TH PM
Section 32: Lot 5;
Section 32: SESW;
Section 35: Lot 1, 9;

The following lands are subject to Exhibit WR-TL-01 to protect the nests of threatened, endangered, or candidate raptors:
T.0030N., R.0980W., 6TH PM
Section 32: NWNW;

The following lands are subject to Exhibit WR-TL-05 to protect bald eagle winter roosts and concentration areas:
T.0030N., R.0980W., 6TH PM
Section 32: W2NW;
Section 34: Lot 1;
Section 35: Lot 1,3,9;

The following lands are subject to Exhibit WR-NSO-05 to protect bald eagle roosts:
T.0030N., R.0980W., 6TH PM
Section 35: Lot 9;

BLM; CON: WRFO

PARCEL ID: 6754

T.0030N., R.0980W., 6TH PM
Section 19: Lot 5-8;
Section 19: E2,E2W2;
Section 30: Lot 5,6,10,12,24,25;
Section 30: E2SE;
Section 31: Lot 5-9;
Section 31: Lot 11,13,15,20,22,23;
Section 31: SESW;

Rio Blanco County
Colorado 1198.760 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-TL-08 to protect big game severe winter range.

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.0980W., 6TH PM
Section 19: E2,E2W2;
Section 30: Lot 5,24,25;
Section 30: E2SE;
Section 31: Lot 7-9,11,13,18,20,22,23;
Section 31: SESW;

The following lands are subject to Exhibit WR-TL-03 to protect the nests of ferruginous hawks:
T.0030N., R.0980W., 6TH PM
Section 19: Lot 5-8;
Section 19: W2NE,E2NW,E2SW;
Section 30: Lot 5;

The following lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern:
T.0030N., R.0980W., 6TH PM
Section 30: Lot 12, 24;
Section 30: SESE;
Section 31: Lot 11,13,20;

The following lands are subject to Exhibit WR-CSU-05 to protect bald eagle nest, roosts and perch habitat:
T.0030N., R.0980W., 6TH PM
Section 30: Lot 12,24;
Section 30:SESE
Section 31: Lot 23,11,13,20

The following lands are subject to Exhibit WR-TL-01 to protect the nests of threatened, endangered, or candidate raptors:
T.0030N., R.0980W., 6TH PM

Section 30: Lot 6,24;
Section 30: E2SE;
Section 31: Lot 5,6,9,11,13;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0030N., R.0980W., 6TH PM
Section 30: Lot 24;
Section 30: NESE;

The following lands are subject to Exhibit WR-TL-05 to protect bald eagle winter roosts and concentration areas:
T.0030N., R.0980W., 6TH PM
Section 30: Lot 10,12,24;
Section 30: E2SE;
Section 31: Lot 5,6,9,11,13;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0030N., R.0980W., 6TH PM
Section 30: Lot 24;

The following lands are subject to Exhibit WR-NSO-05 to protect bald eagle roosts:
T.0030N., R.0980W., 6TH PM
Section 30: Lot 12, 24;
Section 30: E2SE;

The following lands are subject to Exhibit WR-LN-03 to alert lessee of potential restrictions due to wild horse habitat:
T.0030N., R.0980W., 6TH PM
Section 31: Lot 8,23;
Section 31: SESW;

BLM; CON: WRFO

PARCEL ID: 6755

T.0030N., R.0990W., 6TH PM
Section 12: S2;
Section 13: NWNE,S2NW,SW;
Section 14: E2,N2NW,SWNW,SESW;

Moffat County
Colorado 1080.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-CSU-03 to protect the black-footed ferret reintroduction area

All lands are subject to Exhibit WR-TL-03 to protect the nests of ferruginous hawks.

All lands are subject to Exhibit WR-TL-08 to protect big game severe winter range.

All lands are subject to Exhibit WR-LN-01 to alert lessee of potential requirements for protection of prairie dog towns.

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0030N., R.0990W., 6TH PM
Section 12: E2SW,SE;SWSW;
Section 13: NWNE,S2NW;SW;
Section 14: NWNE,NENW,SESE;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0030N., R.0990W., 6TH PM
Section 12: SE,SESW
Section 13: NWNE,S2SW;
Section 14: NWNE, NENW;

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:
T.0030N., R.0990W., 6TH PM
Section 12: S2;
Section 13: NWNE,S2NW,SW;
Section 14: E2,N2NW,SWNW,SESW;

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0030N., R.0990W., 6TH PM
Section 12: E2SW,SE;
Section 13: NWNE,SENW,NESW,S2SW;
Section 14: NWNE,NENW;

The following lands are subject to Exhibit WR-NSO-02 to protect special status raptor nests:
T.0030N., R.0990W., 6TH PM
Section 13: SW;
Section 14: W2NW,SESE;

The following lands are subject to Exhibit WR-NSO-09 to protect sensitive plants:

T.0030N., R.0990W., 6TH PM
Section 14: N2NE

BLM; CON: WRFO

PARCEL ID: 6756

T.0030N., R.0990W., 6TH PM
Section 23: ALL;
Section 24: ALL;
Section 25: Lot 1,4,7,9;
Section 25: N2;
Section 26: Lot 1,3,7,8,10,12;
Section 26: NE;
Section 35: Lot 6,9;
Section 35: S2NW,S2;

Rio Blanco County
Colorado 2366.010 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-TL-08 to protect big game severe winter range.

All lands are subject to Exhibit WR-LN-01 to alert lessee of potential requirements for protection of prairie dog towns.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0030N., R.0990W., 6TH PM
Section 23: N2,SW,E2SE;
Section 24: NE,N2NW,SENW,NESW;S2SW,N2SE,SWSE;
Section 25: Lot 1,4,7,9;
Section 25: N2;
Section 26: Lot 1,7,8,10,12;
Section 26: N2NE;
Section 35: Lot 6,9;

The following lands are subject to Exhibit WR-CSU-03 to protect the black-footed ferret reintroduction area:
T.0030N., R.0990W., 6TH PM

Section 23: ALL;
Section 24: N2,SW,NWSE;
Section 26: Lot 1,3;
Section 26: N2NE;

The following lands are subject to Exhibit WR-NSO-02 to protect special status raptor nests:
T.0030N., R.0990W., 6TH PM
Section 23: E2NE,SESW,S2SE;
Section 24: W2NE,NW,NESW;
Section 26: Lot 1,7;
Section 26: NE;

The following lands are subject to Exhibit WR-TL-03 to protect the nests of ferruginous hawks:
T.0030N., R.0990W., 6TH PM
Section 23: E2,NW,E2SW;;
Section 24: ALL;
Section 25: Lot 4,7,9;
Section 25: N2NE,SWNE,NW;
Section 26: Lot 1,3,7,8,10,12;
Section 26: NE;
Section 35: Lot 6,9;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0030N., R.0990W., 6TH PM
Section 23: E2NE,E2SW;
Section 24: NWNE,NW,SWSW;
Section 25: W2NW;
Section 26: Lot 1,7;
Section 26: NE;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0030N., R.0990W., 6TH PM
Section 23: SESE;
Section 24: N2NW,SWNW;
Section 25: NWNW;
Section 26: Lot 1,7;
Section 26: N2NE,SWNE;

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:
T.0030N., R.0990W., 6TH PM
Section 23: N2, E2SW, SE

Section 24: ALL
Section 25: N2N2;
Section 26: Lot 1,7;
Section 26: NE;
Section 35: Lot 6,9;
Section 35: S2NW,S2;

The following lands are subject to Exhibit WR-CSU-05 to protect bald eagle nest, roosts and perch habitat:
T.0030N., R.0990W., 6TH PM
Section 25: Lot 4,7;

BLM; CON: WRFO

PARCEL ID: 6757

T.0030N., R.0990W., 6TH PM
Section 22: ALL;
Section 27: Lot 1,3,7,8,10,13,15;
Section 27: W2NE,NW;
Section 28: Lot 1,3;
Section 28: N2,SW,N2SE;

Rio Blanco County
Colorado 2221.040 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-TL-08 to protect big game severe winter range.

All lands are subject to Exhibit WR-LN-01 to alert lessee of potential requirements for protection of prairie dog towns.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0030N., R.0990W., 6TH PM
Section 21: NE,NENW,S2NW,S2;
Section 22: ALL;
Section 27: Lot 1,3,7,8,10,13,15;
Section 27: W2NE,NW;
Section 28: Lot 1,3;

Section 28: N2,SW,N2SE;

The following lands are subject to Exhibit WR-CSU-03 to protect the black-footed ferret reintroduction area:
T.0030N., R.0990W., 6TH PM
Section 21: ALL;
Section 22: ALL;
Section 27: Lot 1,3;
Section 27: W2NE,NW;
Section 28: N2;

The following lands are subject to Exhibit WR-CSU-05 to protect bald eagle nest, roosts and perch habitat:
T.0030N., R.0990W., 6TH PM
Section 27: Lot 7,8,10,15;

The following lands are subject to Exhibit WR-TL-03 to protect the nests of ferruginous hawks:
T.0030N., R.0990W., 6TH PM
Section 21: E2NE,SWNW,SW,SWSE;
Section 22: N2,N2S2,S2SE;
Section 27: Lot 1,3,7,8;
Section 27: W2NE;
Section 28: Lot 1;
Section 28: W2NE,W2,NWSE;

The following lands are subject to Exhibit WR-NSO-02 to protect special status raptor nests
T.0030N., R.0990W., 6TH PM
Section 21: N2N2
Section 22: N2NE;
Section 28: NW;NWSW;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0030N., R.0990W., 6TH PM
Section 21: NE,E2NW;
Section 27: Lot 1,3,7,8,10,13,15;
Section 27: W2NE,S2NW;
Section 28: Lot 1,3;
Section 28: S2NE,N2SE;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0030N., R.0990W., 6TH PM
Section 21: NE;
Section 27: Lot 3,7,8,13,15;
Section 27: SWNE,SWNW;
Section 28: Lot 3;
Section 28: SENE,NESE;

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:
T.0030N., R.0990W., 6TH PM
Section 21: ALL
Section 22: S2NW, SW, SWSE;
Section 27: Lot 1,13;
Section 27: W2NE,NW;
Section 28: Lot 1;
Section 28: N2,SW,N2SE;

The following lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern:
T.0030N., R.0990W., 6TH PM
Section 27: Lot 7,8,10,15;

BLM; CON: WRFO

PARCEL ID: 6758

T.0030N., R.0990W., 6TH PM
Section 31: Lot 5,6,9,11,31,33;
Section 31: N2NE,NENW;
Section 32: Lot 13,15,22,25,26;
Section 32: N2N2,SWSE;
Section 33: Lot 2,6,8,19,21,22;
Section 33: Lot 29,31,33;
Section 33: NWNW,E2SE;
Section 34: Lot 2,4,6,9;
Section 34: S2N2,S2;

Rio Blanco County
Colorado 1464.430 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-TL-08 to protect big game severe winter range.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0030N., R.0990W., 6TH PM

Section 31: Lot 5,6,9,11,31,33;
Section 31: N2NE;
Section 32: Lot 13,15,22;
Section 32: N2N2;
Section 33: Lot 2,6,8,21,29,31;
Section 33: NWNW,NESE;
Section 34: Lot 2,4,9;
Section 34: S2NE,S2SW;

The following lands are subject to Exhibit WR-CSU-05 to protect bald eagle nest, roosts and perch habitat:
T.0030N., R.0990W., 6TH PM
Section 32: Lot 15;
Section 33: Lot 2;

The following lands are subject to Exhibit WR-TL-03 to protect the nests of ferruginous hawks:
T.0030N., R.0990W., 6TH PM
Section 31: N2NE, NENW;
Section 33: Lot 8;
Section 33: NWNW;

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:
T.0030N., R.0990W., 6TH PM
Section 31: Lot 5,6,9,11,31,33;
Section 31: N2NE,NENW;
Section 32: Lot 13,15,22,25,26;
Section 32: N2N2,SWSE;
Section 33: Lot 2,6,8,19,21,22;
Section 33: Lot 29,31,33;
Section 33: NWNW,E2SE;
Section 34: Lot 2,4,6,9;
Section 34: S2N2,S2;

The following lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern:
T.0030N., R.0990W., 6TH PM
Section 32: Lot 13,15;
Section 33: Lot 2;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0030N., R.0990W., 6TH PM
Section 32: N2NE,N2NW;SWSE;
Section 32: Lot 13, 15,25;
Section 33: NWNW;
Section 33: Lot 2,21;

Section 34: SWNW;
Section 34: Lot 6,9

BLM; CON: WRFO

PARCEL ID: 6759

T.0030N., R.0990W., 6TH PM
Section 19: Lot 5-8;
Section 19: E2,E2W2;
Section 20: ALL;
Section 29: ALL;
Section 30: Lot 5-8;
Section 30: E2,E2W2;

Rio Blanco County
Colorado 2509.120 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-LN-01 to alert lessee of potential requirements for protection of prairie dog towns.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0030N., R.0990W., 6TH PM
Section 19: ALL;
Section 20: S2NE,NENW,S2NW,S2;
Section 29: ALL;
Section 30: ALL;

The following lands are subject to Exhibit WR-CSU-03 to protect the black-footed ferret reintroduction area:
T.0030N., R.0990W., 6TH PM
Section 19: Lot 5-8;
Section 19: E2,E2W2;
Section 20: ALL;
Section 29: NE,N2NW;
Section 30: N2NE;

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

T.0030N., R.0990W., 6TH PM

Section 19: S2NE,E2SW,SE;
Section 20: S2N2,S2;
Section 29: ALL;
Section 30: E2,E2W2;
Section 30: Lot 6,7;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0030N., R.0990W., 6TH PM

Section 19: Lot 8;
Section 19: N2NE,SESW,S2SE;
Section 20: NWNW,SWSW;
Section 29: W2NW,S2SW,SWSE;
Section 30: Lot 5;
Section 30: NE,NENW;

The following lands are subject to Exhibit WR-TL-06 to protect sage-grouse nesting habitat:
T.0030N., R.0990W., 6TH PM

Section 19: Lot 5-8;
Section 19: NE,E2W2,N2SE,SWSE;
Section 20: W2NW;
Section 30: Lot 5;
Section 30: NENW;

The following lands are subject to Exhibit WR-TL-08 to protect big game severe winter range:
T.0030N., R.0990W., 6TH PM

Section 19: Lot 6-8;
Section 19: E2,E2W2;
Section 20: ALL;
Section 29: ALL;
Section 30: Lot 5-8;
Section 30: E2,E2W2;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0030N., R.0990W., 6TH PM

Section 19: Lot 8;
Section 19: SESE;
Section 29: NWNW,SESW,SWSE;
Section 30: Lot 5;
Section 30: NENE;

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:
T.0030N., R.0990W., 6TH PM

Section 19: Lot 5-8;
Section 19: E2, E2W2

Section 20: ALL;
Section 29: ALL;
Section 30: Lot 5-8;
Section 30: E2,E2W2;

The following lands are subject to Exhibit WR-NSO-02 to protect special status raptor nests:
T.0030N., R.0990W., 6TH PM
Section 19: N2NE;
Section 20: NW;W2NE;NWSE;NESW;NENE;
Section 29: N2,N2S2;

BLM; CON: WRFO

PARCEL ID: 6760

T.0010S., R.0970W., 6TH PM
Section 8: NWNE,SENE,NW;
Section 8: W2SW,SESW,SESE;

Rio Blanco County
Colorado 400.000 Acres

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

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-TL-08 to protect big game severe winter range.

The following lands are subject to Exhibit WR-NSO-09 to protect remnant vegetation associations:
T.0001S., R.097W., 6th PM
Section 8: SESE.

The following lands are subject to Exhibit WR-NSO-08 to protect threatened and endangered plant species:
T.0010S., R.0970W., 6TH PM
Section 8: NWNE,SENE,NW;
Section 8: W2SW,SESW,SESE;

BLM; CON: WRFO

PARCEL ID: 6761

T.0010S., R.0970W., 6TH PM
Section 6: Lot 6,7;
Section 6: E2SW,SE;
Section 7: Lot 2-4;
Section 7: E2,SENW,E2SW;

Rio Blanco County
Colorado 884.180 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

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-TL-08 to protect big game severe winter range.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0010S., R.0970W., 6TH PM
Section 6: Lot 6;

The following lands are subject to Exhibit WR-TL-04 to protect raptors
T.0010S., R.0970W., 6TH PM
Section 6: Lot 6,7;
Section 6: NESW,SESW;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0010S., R.0970W., 6TH PM
Section 6: Lot 6;
Section 6: NESW;

The following lands are subject to Exhibit WR-NSO-08 to protect threatened and endangered plant species:
T.0010S., R.0970W., 6TH PM
Section 6: NESW, SE
Section 7: Lot 3,4;
Section 7: NE,E2SW,SE;

BLM; CON: WRFO

PARCEL ID: 6764

T.0030N., R.0980W., 6TH PM
Section 5: Lot 5-8;
Section 5: S2N2,S2;
Section 7: Lot 5-8;
Section 7: E2,E2W2;

Moffat County
Colorado 1254.480 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-LN-01 to alert lessee of potential requirements for protection of prairie dog towns.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0030N., R.0980W., 6TH PM
Section 5: Lot 5-6;
Section 5: SE,SENW,SW,N2SE,SWSE;
Section 7: Lot 6-8;
Section 7: E2,E2W2;

The following lands are subject to Exhibit WR-CSU-03 to protect the black-footed ferret reintroduction area:
T.0030N., R.0980W., 6TH PM
Section 5: Lot 6,7,8;
Section 5: SWNE,S2NW,SW;
Section 7: Lot 5-8;
Section 7: NE,E2W2,N2SE,SWSE;

The following lands are subject to Exhibit WR-TL-03 to protect the nests of ferruginous hawks:
T.0030N., R.0980W., 6TH PM
Section 5: Lot 6-8;
Section 5: S2NW,S2;
Section 7: Lot 5-8;
Section 7: E2,E2W2;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0030N., R.0980W., 6TH PM
Section 5: Lot 5;
Section 7: Lot 7,8;
Section 7: E2NE;SESW;

The following lands are subject to Exhibit WR-TL-08 to protect big game severe winter range:
T.0030N., R.0980W., 6TH PM
Section 5: Lot 5-8;
Section 5:S2N2,SW,N2SE,SWSE;
Section 7: All;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0030N., R.0980W., 6TH PM
Section 5: SWSW;
Section 7: NENE;

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:
T.0030N., R.0980W., 6TH PM
Section 5: Lot 5-8;
Section 5: S2N2,S2;
Section 7: Lot 5-8;
Section 7: E2,E2W2;

The following lands are subject to Exhibit WR-NSO-02 to protect special status raptor nests:
T.0030N., R.0980W., 6TH PM
Section 5: Lot 5,6;
Section 5: S2NE;

The following lands are subject to Exhibit WR-TL-01 to protect special status raptors
T.0030N., R.0980W., 6TH PM
Section 5: Lot 5-7;
Section 5: S2NE;SENW;N2SE;NESW;
Section 7: NE,E2NW,NESW,N2SE;

BLM; CON: WRFO

PARCEL ID: 6765

T.0050S., R.1010W., 6TH PM
Section 7: E2SE;
Section 17: ALL;
Section 18: Lot 5,8,9,12;

Section 18: E2,E2SW;
Section 19: E2,E2W2;
Section 20: ALL;

Garfield County
Colorado 280.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range.

All lands are subject to Exhibit WR-CSU-01 to protect fragile soils.

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

The following lands are subject to Exhibit WR-NSO-01 to protect potential landslide areas:
T.0050S., R.1010W., 6TH PM
Section 7: E2SE;
Section 18: N2NE;
Section 20: E2SE;

The following lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern:
T.0050S., R.1010W., 6TH PM
Section 7: E2SE;
Section 17: ALL;
Section 18: E2NE,SESW,SE;
Section 19: E2,E2W2;
Section 20: ALL;

The following lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat:
T.0050S., R.1010W., 6TH PM
Section 7: E2SE;
Section 17: ALL;
Section 18: E2NE,SESW,SE;
Section 19: E2,E2W2;
Section 20: ALL;

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

T.0050S., R.1010W., 6TH PM
Section 18: Lot 5,8,9,12,
Section 18: SWNE, E2SW, W2SE;
Section 19: NENW, NWNE;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0050S., R.1010W., 6TH PM
Section 18: Lot 8,9,12,
Section 18: E2SW;

BLM; CON: WRFO

PARCEL ID: 6766

T.0050S., R.1010W., 6TH PM
Section 23: ALL;
Section 24: W2E2,W2;

Garfield County
Colorado 1120.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat

All lands are subject to Exhibit WR-CSU-01 to protect fragile soils.

All lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range.

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

The following lands are subject to Exhibit WR-NSO-01 to protect potential landslide areas:
T.0050S., R.1010W., 6TH PM
Section 23: ALL;

The following lands are subject to Exhibit WR-CSU-2 to protect areas of critical environmental concern:
T.0050S., R.1010W., 6TH PM
Section 23: NWNE,S2NE,NW,S2;

Section 24: W2E2,W2;

BLM; CON: WRFO

PARCEL ID: 6768

T.0040S., R.1000W., 6TH PM
Section 13: N2NW
Section 13: Lot 3, 4, 9;
Section 13: S2NW, N2SW;
Section 14: N2, NESE;

Rio Blanco County
Colorado 720.00 Acres

PVT/BLM; CON: WRFO

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat

All lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range.

All lands are subject to Exhibit WR-TL-06 to protect sage-grouse nesting habitat.

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-CSU-01 to protect fragile soils:

The following lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern:
T.0040S., R.1000W., 6TH PM
Section 13: N2NW
Section 13: Lot 3, 4;
Section 13: SWNW;
Section 14: NENE, N2NW;
Section 14: W2NE, SENE, S2NW,

The following lands are subject to Exhibit WR-NSO-09 to protect sensitive plants:

T.0040S., R.1000W., 6TH PM
Section 13: N2NW
Section 13: Lot 3, 4;
Section 13: S2NW, N2SW;
Section 14: NENE, N2NW;
Section 14: W2NE, SENE, S2NW, NESE;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0040S., R.1000W., 6TH PM
Section 13: Lot 2,3;
Section 13: N2NW;
Section 14: NW; W2NE; NENE;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0040S., R.1000W., 6TH PM
Section 14: N2NW; NWNE;

PVT/BLM; CON: WRFO

PARCEL ID: 6769

T.0040S., R.1000W., 6TH PM
Section 5: ALL;
Section 6: ALL;
Section 7: ALL;
Section 8: ALL;

Rio Blanco County
Colorado 2560.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-CSU-01 to protect fragile soils.

All lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat.

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-02 to protect areas of critical environmental concern:
T.0040S., R.1000W., 6TH PM
Section 5: N2,N2SW,SWSW,NWSE;
Section 6: E2,SENW,NESW,S2SW;
Section 7: W2E2,W2;
Section 8: SWNE,SENW,N2SW,SESW,NWSE;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:
T.0040S., R.1000W., 6TH PM
Section 5: W2NW,W2SW,SE
Section 6: E2SE
Section 7: E2,SESW;
Section 8: ALL;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0040S., R.1000W., 6TH PM
Section 7: NESW,S2SW,SWSE;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0040S., R.1000W., 6TH PM
Section 7: S2SW;

PVT/BLM; CON: WRFO

PARCEL ID: 6770

T.0040S., R.1000W., 6TH PM
Section 3: SENE,W2,SE;
Section 4: ALL;
Section 9: ALL;
Section 10: ALL;

Rio Blanco County
Colorado 2440.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat

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

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range.:
T.0040S., R.1000W., 6TH PM
Section 3: NW,N2SW,SWSW;
Section 4: E2,E2NW,E2SW,SWSW;
Section 9: ALL;
Section 10: W2NW,S2SW,NESE,S2SE;

The following lands are subject to WR-TL-04 to protect raptors:
T.0040S., R. 1000W., 6TH PM
Section 10: E2SE;

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0040S., R.1000W., 6TH PM
Section 3: SENE,W2,N2SE,SESE;
Section 4: ALL;
Section 9: N2,NESW,S2SW,SE;
Section 10: NE,W2NW,SENW,S2;

The following lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern:
T.0040S., R.1000W., 6TH PM
Section 3: SENE,NW,E2SW,SE;
Section 4: N2N2,SENE,SWNW,SESW,W2SE;
Section 9: E2NW;
Section 10: ALL;

The following lands are subject to Exhibit WR-NSO-09 to protect BLM sensitive plants:
T.0040S., R.1000W., 6TH PM
Section 10: E2SE,

BLM; CON: WRFO

PARCEL ID: 6771

T.0040S., R.1000W., 6TH PM
Section 1: Lot 5-16;
Section 1: W2;
Section 2: ALL;
Section 11: ALL;

Rio Blanco County
Colorado 1975.560 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat.

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

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range.:
T.0040S., R.1000W., 6TH PM
Section 1: Lots 5,10-12,14-16;
Section 2: E2SW;W2SE,SESE;
Section 11: E2,E2NW,SENW,SW;

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0040S., R.1000W., 6TH PM
Section 1: Lot 5-16;
Section 1: W2;
Section 2: NENE,W2NE,W2,W2SE,SESE;
Section 11: ALL;

The following lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern:
T.0040S., R.1000W., 6TH PM
Section 1: Lot 5,6,10,11,14-16;
Section 1: W2;
Section 2: ALL;
Section 11: ALL;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0040S., R.1000W., 6TH PM
Section 11: SW,W2SE;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0040S., R.1000W., 6TH PM
Section 11: SW;

The following lands are subject to Exhibit WR-NSO-09 to protect BLM sensitive plants:
T.0040S., R.1000W., 6TH PM
Section 11: NENE, W2NE, SWNE, NWSE, NESW, W2SW

BLM; CON: WRFO

PARCEL ID: 6772

T.0040S., R.1000W., 6TH PM
Section 15: N2NW,SWNW:
Section 15: E2, SENW, SW;
Section 16: ALL;
Section 22: N2NE, SENE, N2NW;
Rio Blanco County
Colorado 1480.000 Acres

PVT/BLM; CON: WRFO

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat

All lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range.

All lands are subject to Exhibit WR-CSU-01 to protect fragile soils.

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

The following lands are subject to Exhibit WR-TL-06 to protect sage-grouse nesting habitat:
T.0040S., R.1000W., 6TH PM
Section 15: NE,SENW,S2;
Section 22: N2N2, SENE;

The following lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern:
T.0040S., R.1000W., 6TH PM
Section 15: N2NW,SWNW:
Section 15: NE, SENW, SW;
Section 16: NE, SE, SW, S2NW, NENW;

The following lands are subject to Exhibit WR-NSO-09 to protect sensitive plants:
T.0040S., R.1000W., 6TH PM
Section 15: N2NW,SWNW:
Section 15: E2, SENW, SW;
Section 16: ALL;
Section 22: N2NE, SENE, NWNW;

The following lands are subject to WR-TL-04 to protect raptors:
T.0040S., R.1000W., 6TH PM
Section 15: E2NE;

PVT/BLM; CON: WRFO

PARCEL ID: 6773

T.0040S., R.1000W., 6TH PM
Section 17: ALL;
Section 18: ALL;
Section 19: ALL;
Section 20: W2;

Rio Blanco County
Colorado 2240.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat

All lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range.

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.1000W., 6TH PM
Section 17: NWNE,W2,SE;
Section 18: ALL;
Section 19: W2NE,SENE,W2,SE;
Section 20: W2;

The following lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern:
T.0040S., R.1000W., 6TH PM
Section 17: S2NW,NWSW,SESE;
Section 18: W2E2,W2;
Section 19: NWNE,S2NE,NW,S2;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0040S., R.1000W., 6TH PM
Section 18: NW, W2NE;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0040S., R.1000W., 6TH PM
Section 18: N2NW;

PVT/BLM; CON: WRFO

PARCEL ID: 6776

T.0040S., R.1010W., 6TH PM
Section 3: ALL;
Section 4: ALL;
Section 9: S2;
Section 10: ALL;
Section 18: E2NE,SWNE,NW;

Rio Blanco County
Colorado 2520.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

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
Section 3: NE, E2NW,NESW,S2SW,SE;
Section 4: W2NE,W2,W2SE,SESE;
Section 9: S2;
Section 10: ALL;
Section 18: E2NE,SWNE,NW;

The following lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat:
T.0040S., R.1010W., 6TH PM
Section 3: S2, SENE;
Section 4: SESE;
Section 9: SE;
Section 10: ALL;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:
T.0040S., R.1010W., 6TH PM
Section 3: ALL;
Section 4: ALL;
Section 9: ALL;
Section 10: N2,SW, W2SE;
Section 18: SENE,NW;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests
T.0040S., R.1010W., 6TH PM
Section 18: SWNE; NENE;

The following lands are subject to Exhibit WR-TL-04 to protect raptors
T.0040S., R.1010W., 6TH PM
Section 9: S2SE;
Section 10: S2SW;
Section 18: E2NW; E2NE; SWNE;

The following lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern:
T.0040S., R.1010W., 6TH PM
Section 3:SENE,S2;
Section 4: E2SE
Section 9: SE;
Section 10:ALL;

BLM; CON: WRFO

PARCEL ID: 6777

T.0040S., R.1010W., 6TH PM
Section 15: ALL;
Section 16: W2NE,E2SE;
Section 21: ALL;

Rio Blanco County
Colorado 1440.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0040S., R.1010W., 6TH PM
Section 15: N2,W2SW,SE;
Section 16: W2NE,E2SE;
Section 21: ALL;

The following lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern:
T.0040S., R.1010W., 6TH PM
Section 15: NE,W2NW;
Section 16: W2NE,E2SE;
Section 21: NW,S2;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0040S., R.1010W., 6TH PM
Section 15: W2W2;
Section 16: W2NE,E2SE;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:
T.0040S., R.1010W., 6TH PM
Section 15: S2,SWNE,W2NW;
Section 16: W2NE,E2SE;
Section 21: ALL;

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

T.0040S., R.1010W., 6TH PM
Section 15: W2NW,NWSW;
Section 16: NWNE,NESE;

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:
T.0040S., R.1010W., 6TH PM
Section 15: ALL;
Section 16: W2NE, E2SE;
Section 21: All

PVT/BLM; CON: WRFO

PARCEL ID: 6778

T.0010N., R.1030W., 6TH PM
Section 17: NESW;
Section 30: E2,E2W2;

Rio Blanco County
Colorado 520.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-NSO-08 to protect threatened and endangered plant species.

All lands are subject to Exhibit WR-CSU-01 to protect fragile soils.

All lands are subject to Exhibit WR-TL-08 to protect big game severe winter range.

The following lands are subject to Exhibit WR-TL-05 to protect bald eagle winter roosts and concentration areas:
T.0010N., R.1030W., 6TH PM
Section 17: NESW;

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

T.0010N., R.1030W., 6TH PM
Section 17: NESW;
Section 30: E2,E2W2;

The following lands are subject to Exhibit WR-NSO-05 to protect bald eagle roosts:
T.0010N., R.1030W., 6TH PM
Section 17: NESW;

BLM; CON: WRFO

PARCEL ID: 6779

T.0050S., R.1010W., 6TH PM
Section 10: SW;
Section 15: NENW,W2W2,SESW;
Section 16: ALL;
Section 21: ALL;
Section 22: ALL;

Garfield County
Colorado 2320.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

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-CSU-01 to protect fragile soils.

The following lands are subject to Exhibit WR-NSO-01 to protect potential landslide areas:
T.0050S., R.1010W., 6TH PM
Section 10: SW;
Section 15: N2NW,SWNW,NWSW,SESW;
Section 16: SENE,N2NW,SESW,SE;
Section 21: NE,NENW,S2NW,SW,W2SE;
Section 22: NE,E2NW,SW,E2SE;

The following lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern:
T.0050S., R.1010W., 6TH PM

Section 10: SW;
Section 15: NENW,W2W2,SESW;
Section 16: ALL;
Section 21: N2,SW,W2SE;
Section 22: N2;

The following lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat:
T.0050S., R.1010W., 6TH PM
Section 10: SW;
Section 15: NENW,W2W2,SESW;
Section 16: ALL;
Section 21: N2,SW,W2SE
Section 22: N2

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:
T.0050S., R.1010W., 6TH PM
Section 10: SW;
Section 15: NENW,W2W2,SESW;
Section 16: ALL;
Section 21: N2,SW,W2SE;
Section 22: N2;

The following lands are subject to Exhibit GJ-3JA to protect steep slopes in excess of 40%:
T.0050S., R.1010W., 6TH PM
Section 21: S2NE,SE;
Section 22: S2N2,N2S2,SWSW;

The following lands are subject to Exhibit GJ-7BE to protect perennial streams with a 100 foot buffer zone:
T.0050S., R.1010W., 6TH PM
Section 21: SENE,NESE;

BLM; CON: WRFO

PARCEL ID: 6783

T.0010S., R.0970W., 6TH PM
Section 15: E2SE;
T.0010N., R.0970W., 6TH PM
Section 33: Lot 3,4;
Section 33: N2S2;

Rio Blanco County
Colorado 294.130 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-TL-08 to protect big game severe winter range.

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

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0010S., R.0970W., 6TH PM
Section 15: E2SE;

The following lands are subject to Exhibit WR-TL-01 to protect the nests of threatened, endangered, or candidate raptors:
T.0010N., R.0970W., 6TH PM
Section 33: Lot 3;

BLM; CON: WRFO

PARCEL ID: 6790

T.0010N., R.1040W., 6TH PM
Section 23: N2NWSE;
Section 24: Lot 2,3,5,9,10;
Section 24: W2NE,NWSE;
Section 25: Lot 5-8,10,11;
Section 26: SWNW, W2SW,SESW,S2SE;
Section 26: Lot 4,6-8;
Section 27: Lot 3,4;

Rio Blanco County
Colorado 636.570 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0010N., R.1040W., 6TH PM
Section 24: Lot 2,3,5;
Section 25: Lot 5,8,10;
Section 26: Lot 4,6-8;
Section 26: SWNW, W2SW,SESW,S2SE;
Section 27: Lot 3,4;

The following lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern:
T.0010N., R.1040W., 6TH PM
Section 24: Lot 5,9;
Section 25: Lot 7;
Section 26: Lot 4,8;
Section 26: SWNW,NWSW;
Section 27: Lot 3;

The following lands are subject to Exhibit WR-CSU-05 to protect bald eagle nest, roosts and perch habitat:
T.0010N., R.1040W., 6TH PM
Section 25: Lot 10;
Section 26: Lot 4, 8;
Section 27: Lot 3;

The following lands are subject to Exhibit WR-TL-05 to protect bald eagle winter roosts and concentration areas:
T.0010N., R.1040W., 6TH PM
Section 24: Lot 5,,9,10;
Section 24: NWSE;
Section 25: Lot 5,610;

The following lands are subject to Exhibit WR-TL-08 to protect big game severe winter range:
T.0010N., R.1040W., 6TH PM
Section 24: Lot 2,3,5,9,10;
Section 24: NWSE
Section 25: Lot7,10,11;
Section 26: Lot 3,4, 8;
Section 26: SWNW,NWSW,S2S2;
Section 27: Lot 3,4;

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:
T.0010N., R.1040W., 6TH PM
Section 23: N2NWSE:

Section 24: Lot 2,3,5,9;
Section 25: Lot 5-8, 10, 11;
Section 26: Lot 4,6-8;
Section 26: SWNW, W2SW,SESW,S2SE;
Section 27: Lot 3,4;

The following lands are subject to Exhibit WR-NSO-05 to protect bald eagle roosts:
T.0010N., R.1040W., 6TH PM
Section 25: Lot 5,6,10;

The following lands are subject to Exhibit WR-NSO-08 to protect threatened and endangered plant species:
T.0010N., R.1040W., 6TH PM
Section 24: Lot 2,3,5,9
Section 25: Lot 5-7
Section 26: Lot 4,8
Section 26: SWNW,NWSW,S2S2
Section 27: Lot 3,4

BLM; CON: WRFO

PARCEL ID: 6812

T.0050S., R.1010W., 6TH PM
Section 18: SENW;

Garfield County
Colorado 40.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-CSU-01 to protect fragile soils.

All lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range.

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 WR-TL-04 to protect raptors:
T.0050S., R.1010W., 6TH PM

Section 18: SENW;

BLM; CON: WRFO

PARCEL ID: 6813

T.0010N., R.1020W., 6TH PM
Section 20: ALL;

Rio Blanco County
Colorado 640.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-TL-08 to protect big game severe winter range.

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

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0010N., R.1020W., 6TH PM
Section 20: NW,N2SW;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0010N., R.1020W., 6TH PM
Section 20: W2NW,NWSW;

BLM; CON: WRFO

PARCEL ID: 6814

T.0030N., R.0960W., 6TH PM
Section 1: NWSW,S2SW;
Section 3: Lot 16,17,20,26;
Section 3: SENE ,SWSE;

Moffat County
Colorado 225.890 Acres

PVT/BLM; CON: WRFO

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

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

The following lands are subject to Exhibit WR-TL-06 to protect sage-grouse nesting habitat:
T.0030N., R.0960W., 6TH PM
Section 1: NWSW;
Section 3: Lot 17;
Section 3: SENE,SWSE.

The following lands are subject to Exhibit WR-TL-04 to protect raptor nests
T.0030N., R.0960W., 6TH PM
Section 3: SENE;

The following areas are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0030N., R.0960W., 6TH PM
Section 1: NWSW,S2SW,SWSE;

PVT/BLM; CON: WRFO

PARCEL ID: 6815

T.0030S., R.0990W., 6TH PM
Section 13: SE;
Section 24: N2, SW,N2SE;

Rio Blanco County
Colorado 720.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

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-CSU-01 to protect fragile soils.

The following lands are subject to Exhibit WR-TL-06 to protect sage-grouse nesting habitat:
T.0030S., R.0990W., 6TH PM
Section 24: S2NE,SESW,N2SE;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0030S., R.0990W., 6TH PM
Section 24: W2NW,NWSW;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0030S., R.0990W., 6TH PM
Section 24: SWNW,NWSW;

BLM; CON: WRFO

PARCEL ID: 6816

T.0040N., R.0960W., 6TH PM
Section 25: W2NW,NWSW;
Section 26: NE,W2,N2SE,SWSE;
Section 27: E2,NENW,W2W2;
Section 34: E2,SENW,E2SW;
Section 35: Lot 1,3,5, 10, 12, 14;
Section 35: NWNE,N2NW;

Moffat County
Colorado 1920.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-CSU-01 to protect fragile soils.

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:
T.0040N., R.0960W., 6TH PM
Section 25: W2NW;
Section 26: N2,SW,W2SE;

Section 27: E2,NENW,W2W2;
Section 34: NE,NWSE;
Section 35: N2NW;

The following lands are subject to Exhibit WR-TL-06 to protect sage grouse nesting habitat:
T.0040N., R.0960W., 6TH PM
Section 35: Lot 10,12,14,

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:
T.0040N., R.0960W., 6TH PM
Section 25: W2NW,NWSW,NESE;
Section 26: NE,W2,N2SE,SWSE;
Section 27: E2,NENW,W2W2;
Section 35: Lot 1,3,5,10,12,14,22;
Section 35: NWNE,N2NW,S2SE;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0040N., R.0960W., 6TH PM
Section 34: NE,SENW,E2SW,SE;
Section 35: Lot 1,3,5,12,14,22;
Section 35: NWNE,N2NW;SWSE;
The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0040N., R.0960W., 6TH PM
Section 34: SE;
Section 35: Lot 1,3,5,14;
Section 35: N2NW;

PVT/BLM; CON: WRFO

PARCEL ID: 6817

T.0040N., R.0960W., 6TH PM
Section 20: SWNW,S2;
Section 28: E2E2,NW,W2SW,SWSE;
Section 29: ALL;
Section 32: ALL;
Section 33: Lot 1,4,5,8;
Section 33: E2,SESW;

Moffat County
Colorado 2520.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile:
T.0040N., R.0960W., 6TH PM
Section 20: SWNW,W2SW,SWSE,SE;
Section 28: NW,E2SE;
Section 29: ALL;
Section 32: ALL;
Section 33: Lot 1,4,5,8;
Section 33: E2,SESW;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:
T.0040N., R.0960W., 6TH PM
Section 20: SWNW,S2;
Section 28:E2E2,NW,W2SW,SWSE;
Section 29:N2,N2SW,SE;
Section 32: N2NE, SENE;
Section 33: NE;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0040N., R.0960W., 6TH PM
Section 28: S2SE;
Section 33: Lot 1, 4, 5;
Section 33: E2; SESW;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0040N., R.0960W., 6TH PM
Section 33: Lot 4;
Section 33: NE; S2SE;

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:
T.0040N., R.0960W., 6TH PM
Section 20: SWNW,S2;
Section 28: E2E2,NW,W2SW,SWSE;
Section 29: ALL;
Section 32: ALL;
Section 33: Lot 1,4,5,8;
Section 33: E2,SESW;

BLM; CON: WRFO

PARCEL ID: 6833

T.0050S., R.1010W., 6TH PM
Section 28: W2NE,NW;
Section 29: E2NE,NWNE,N2NW;

Garfield County
Colorado 440.000 Acres
All lands are subject to Exhibit CO-34 to alert lessee of potential habitat for a threatened, endangered, candidate, or other special status plant or animal.

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-CSU-01 to protect fragile soils.

All lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat.

All lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range.

The following lands are subject to Exhibit GJ-3JA to protect steep slopes in excess of 40%:
T.0050S., R.1010W., 6TH PM
Section 28: NWNE,SWNW;

The following lands are subject to Exhibit WR-NSO-01 to protect potential landslide areas:
T.0050S., R.1010W., 6TH PM
Section 28: W2NE,NW;
Section 29: E2NE;

The following lands are subject to Exhibit WR-CSU-2 to protect areas of critical environmental concern:
T.0050S., R.1010W., 6TH PM
Section 28: W2NE,NW;
Section 29: N2N2,SENE;
The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:
T.0050S., R.1010W., 6TH PM
Section 28: W2NE,NW;
Section 29: E2NE,NWNE,N2NW

BLM; CON: WRFO

PARCEL ID: 6836

T.0040N., R.0960W., 6TH PM

Section 8: Lot 5-7;
Section 8: SE;
Section 9: Lot 7,8;
Section 9: SW;
Section11: Lot 5, 8;
Section 11: NESW,NESE
Section 17: E2,S2NW,E2SW,NWSW;
Section 18: SENE,NESE,S2SE;
Section 19: Lot 7,8;
Section 19: E2,E2W2;

Moffat County
Colorado 1720.52 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-CSU-01 to protect fragile soils.

The following lands are subject to Exhibit WR-TL-04 to protect raptor nesting and fledgling habitat:
T.0040N., R.0960W., 6TH PM

Section 8: SESE;
Section 9: S2SW;
Section 17: NENE;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0040N., R.0960W., 6TH PM

Section 9: S2SW;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:
T.0040N., R.0960W., 6TH PM

Section 8:Lots 5-7;
Section 8: SE;
Section9:Lot7,8;
Section 9: SW;
Section 17: E2,S2NW,E2SW,NWSW;;
Section 18: SENE,NESE,S2SE;;
Section 19: Lot 7;
Section 19: NE,E2NW,NESW,N2SE,SESE;

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:
T.0040N., R.0960W., 6TH PM
Section 8: Lot 5-7;
Section 8: SE;
Section 9: SW;
Section 17: E2,S2NW,E2SW,NWSW;
Section 18: SENE,NESE,S2SE;
Section 19: Lot 7,8;
Section 19: E2,E2W2:

BLM; CON: WRFO

PARCEL ID: 6837

T.0040N., R.0960W., 6TH PM
Section 21: N2,SW,N2SE,SESE;
Section 22: SW,S2SE;
Section 23: S2S2,NESE;
Section 30: Lot 5-8;
Section 30: E2,E2W2;
Section 31: Lot 5-8;
Section 31: E2,E2W2;

Moffat County
Colorado 2311.920 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-CSU-01 to protect fragile soils.

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:
T.0040N., R.0960W., 6TH PM
Section 21: N2,SW,N2SE,SESE;
Section 22: SW,S2SE;
Section 23: S2S2,NESE;
Section 30: E2NE,NESE;

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

T.0040N., R.0960W., 6TH PM

Section 21: N2,SW,N2SE,SESE;
Section 22: SW,S2SE;
Section 23: S2S2,NESE;
Section 30: Lot 5-8;
Section 30: E2,E2W2;
Section 31: Lot 5-8;
Section 31: E2,E2W2;

BLM; CON: WRFO

Attachment B: Parcels Available for Lease with Deferred Portions

June 2014 – Colorado Competitive Oil and Gas Lease Sale

PARCEL ID: 6753 SERIAL #:
AVAILABLE PORTION:
NONE

DEFERRED PORTION: Entire Parcel ID 6753

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

Section 20: ALL;	Master Leasing Plan
Section 21: ALL;	Master Leasing Plan
Section 32: Lot 1,5;	Master Leasing Plan
Section 32: N2,E2SW,SE;	Master Leasing Plan
Section 34: Lot 1,3;	Master Leasing Plan
Section 35: Lot 1,3;	Master Leasing Plan
Section 35: Lot 9;	Master Leasing Plan and White River 100 year Floodplain

Rio Blanco County
Colorado 1993.95. Acres

PARCEL ID: 6754 SERIAL #:
AVAILABLE PORTION:
NONE

DEFERRED PORTION: Entire Parcel ID 6754

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

Section 19: Lot 5-8;	Master Leasing Plan
Section 19: E2,E2W2;	Master Leasing Plan
Section 30: Lot 5,6,10,12,24,25;	Master Leasing Plan
Section 30: E2SE;	Master Leasing Plan
Section 31: Lot 5-9;	Master Leasing Plan
Section 31: Lot 11, 13, 15	Master Leasing Plan and Floodplain
Section 31: Lot 20,22,23;	Master Leasing Plan
Section 31: SESW;	Master Leasing Plan

Rio Blanco County
Colorado 1198.76 Acres

PARCEL ID: 6755 SERIAL #:
AVAILABLE PORTION:
NONE

DEFERRED PORTION: Entire Parcel ID 6755
T.0030N., R.0990W., 6TH PM

Section 12: S2;	Master Leasing Plan
Section 13: NWNE,S2NW,SW;	Master Leasing Plan
Section 14: E2,N2NW,SWNW,SESW;	Master Leasing Plan

Moffat County
Colorado 1080.000 Acre

PARCEL ID: 6756 SERIAL #:
AVAILABLE PORTION:
NONE

DEFERRED PORTION: Entire Parcel ID 6756
T.0030N., R.0990W., 6TH PM

Section 23: E2,NW,E2SW;	Master Leasing Plan
Section 23: W2SW;	Master Leasing Plan and Local knowledge: Sage-grouse General Habitat, mesic brood habitat and adjacent north slope basins in xeric saltbush matrix
Section 24: ALL;	Master Leasing Plan
Section 25: Lot 1,4,7,9;	Master Leasing Plan
Section 25: N2;	Master Leasing Plan
Section 26: Lot 1,7,8,10,12;	Master Leasing Plan
Section 26: Lot 3;	Master Leasing Plan and Local knowledge: Sage-grouse General Habitat
Section 26: NE;	Master Leasing Plan
Section 35: Lot 6,9;	Master Leasing Plan
Section 35: S2NW,S2;	Master Leasing Plan

Rio Blanco County
Colorado 2366.01 Acres

PARCEL ID: 6757 SERIAL #:
AVAILABLE PORTION:
NONE

DEFERRED PORTION: Entire Parcel ID 6757
T.0030N., R.0990W., 6TH PM

Section 21: ALL	Master Leasing Plan and Local knowledge: Sage-grouse General Habitat, mesic brood habitat and adjacent north slope basins in xeric saltbush matrix; Lands with wilderness characteristics unit 21 (Coal Rim)
Section 22: N2,N2SW,SE;	Master Leasing Plan and Local knowledge: Sage-grouse General Habitat, mesic brood habitat and adjacent north slope basins in xeric saltbush matrix
Section 22: NWNE, NW,SW,W2SE	Master leasing Plan and Lands with wilderness characteristics unit 21 (Coal Rim) and unit 25 (Lower Wolf Creek)
Section 27: Lot 1;	Master leasing Plan and Local knowledge: Sage-grouse General Habitat, mesic brood habitat and adjacent north slope basins in xeric saltbush matrix
Section 27: Lot 1,3,7,8,10,13,15;	Master Leasing Plan and Lands with wilderness characteristics unit 21 (Coal Rim)
Section 27: Lot 7,8,15;	Master leasing Plan and White River 100 year Floodplain
Section 27: W2NE,NW;	Master Leasing Plan and Lands with wilderness characteristics unit 21 (Coal Rim)
Section 28: Lot 1,3;	Master Leasing Plan and Lands with wilderness characteristics unit 21 (Coal Rim)
Section 28: N2,SW,N2SE;	Master Leasing Plan and Lands with wilderness characteristics unit 21 (Coal Rim)

Rio Blanco County
Colorado 2221.040 Acres

PARCEL ID: 6758 SERIAL #:
AVAILABLE PORTION:
NONE

DEFERRED PORTION: Entire Parcel ID 6758
T.0030N., R.0990W., 6TH PM

Section 31: Lot 5,6,9,11	Master Leasing Plan and Lands with wilderness characteristics unit 21 (Coal Rim)
Section 31: Lot 31,33;	Master Leasing Plan

Section 31: N2NE,NENW;	Master Leasing Plan and Lands with wilderness characteristics unit 21 (Coal Rim)
Section 32: Lot 13,15;	Master Leasing Plan and White River 100 year Floodplain
Section 32: Lot 22,25,26;	Master Leasing Plan
Section 32: N2N2	Master Leasing Plan and Lands with wilderness characteristics unit 21 (Coal Rim)
Section 32: SWSE;	Master Leasing Plan
Section 33: Lot 2;	Master Leasing Plan and White River 100 year Floodplain
Section 33: Lot 6,8,19,21,22;	Master Leasing Plan
Section 33: Lot 29,31,33;	Master Leasing Plan
Section 33: NWNW,E2SE;	Master Leasing Plan
Section 34: Lot 2,4,6,9;	Master Leasing Plan
Section 34: S2N2,S2;	Master Leasing Plan

Rio Blanco County
Colorado 1464.43 Acres

PARCEL ID: 6759 SERIAL #:
AVAILABLE PORTION:
NONE

DEFERRED PORTION: Entire Parcel ID 6759
T.0030N., R.0990W., 6TH PM

Section 19: Lots 5-7;	Master Leasing Plan, Local knowledge: Sage-grouse General Habitat mesic brood habitat and adjacent north slope basins in xeric saltbush matrix and Lands with wilderness characteristics unit 21 (Coal Rim)
Section 19: Lot 8;	Master Leasing Plan and Lands with wilderness characteristics unit 21 (Coal Rim)
Section 19: E2,E2W2;	Master Leasing Plan and Lands with wilderness characteristics unit 21 (Coal Rim)
Section 19: NE,E2NW,NESW,N2SE,SESE;	Master Leasing Plan and Local knowledge: Sage-grouse General Habitat
Section 20: ALL;	Master Leasing Plan and Lands with wilderness characteristics unit 21 (Coal Rim);

	Master Leasing Plan and Local knowledge: Sage-grouse General Habitat
Section 29: ALL;	Master Leasing Plan and Lands with wilderness characteristics unit 21 (Coal Rim)
Section 30: Lot 5-8;	Master Leasing Plan and Lands with wilderness characteristics unit 21 (Coal Rim)
Section 30: E2,E2W2;	Master Leasing Plan and Lands with wilderness characteristics unit 21 (Coal Rim)

Rio Blanco County
Colorado 2509.120 Acres

PARCEL ID: 6760 SERIAL #:
AVAILABLE PORTION:
T.0010S., R.0970W., 6TH PM
Section 8: NWNE,SENE,NW;
Section 8: W2SW,SESW,SESE;

Rio Blanco County
Colorado 400.000 Acres

DEFERRED PORTION:
NONE

PARCEL ID: 6761 SERIAL #:
AVAILABLE PORTION:
T.0010S., R.0970W., 6TH PM
Section 6: Lot 6,7;
Section 6: E2SW,SE;
Section 7: Lot 2-4;
Section 7: E2,SENW,E2SW;

Rio Blanco County
Colorado 884.180 Acres

DEFERRED PORTION:
NONE

PARCEL ID: 6764 SERIAL #:
AVAILABLE PORTION:

NONE

DEFERRED PORTION: Entire Parcel ID 6764

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

Section 5: Lot 5-8;	Master Leasing Plan
Section 5: S2N2,S2;	Master Leasing Plan
Section 7: Lot 5-8;	Master Leasing Plan
Section 7: E2,E2W2;	Master Leasing Plan

Moffat County
Colorado 1254.480 Acres

PARCEL ID: 6765 SERIAL #:
AVAILABLE PORTION:
T.0050S., R.1010W., 6TH PM
Section 18: Lot 5,8,9,12;
Section 18: W2NE, NESW

Garfield County
Colorado 280 Acres

DEFERRED PORTION:

T.0050S., R.1010W., 6TH PM

Section 7; E2SE	Lands with wilderness characteristics unit 1 (Pike Ridge)
Section 17:ALL	Lands with wilderness characteristics unit 1 (Pike Ridge)
Section 18:SENE, SE, SESW	Lands with wilderness characteristics unit 1 (Pike Ridge)
Section 19:E2,E2W2	Lands with wilderness characteristics unit 1 (Pike Ridge)
Section 20: ALL	Lands with wilderness characteristics unit 1 (Pike Ridge)

Garfield County
Colorado 2000 Acres

PARCEL ID: 6766 SERIAL #:
AVAILABLE PORTION:
T.0050S., R.1010W., 6TH PM
Section 23: NENE;

Garfield County
Colorado 40.000 Acres

DEFERRED PORTION:
T.0050S., R.1010W., 6TH PM

Section 23: W2NE, SENE, NW, SW, SE	Lands with wilderness characteristics unit 1 (Pike Ridge)
Section 24: W2E2, W2	Lands with wilderness characteristics unit 1 (Pike Ridge)

Garfield County
Colorado 1080.000 Acres

PARCEL ID: 6768 SERIAL #:
AVAILABLE PORTION:
T.0040S., R.1000W., 6TH PM
Section 13: N2NW;
Section 14: NENE,N2NW;

Rio Blanco County
Colorado 200.000 Acres

DEFERRED PORTION:
T.0040S., R.1000W., 6TH PM

Section 13: Lot 3, 4, 9;	Sage-grouse General Habitat: Continuous suitable ridgeline habitat extending from Priority Habitat
Section 13: S2NW,N2SW;	Sage-grouse General Habitat: Continuous suitable ridgeline habitat extending from Priority Habitat
Section 14: W2NE,SENE,S2NW,NESE;	Sage-grouse General Habitat: Continuous suitable ridgeline habitat extending from Priority Habitat

Rio Blanco County
Colorado 520.000 Acres

PARCEL ID: 6769 SERIAL #:
AVAILABLE PORTION:
T.0040S., R.1000W., 6TH PM
Section 5: ALL;
Section 6: ALL;
Section 7: NE,E2NW,NESW,N2SE,SESE;
Section 8: ALL;

Rio Blanco County
Colorado 2320.000 Acres

DEFERRED PORTION:
T.0040S., R.1000W., 6TH PM
Section.7: W2W2,SESW,SWSE Lands with wilderness characteristics unit 1 (Pike Ridge)

Rio Blanco County
Colorado 240.000 Acres

PARCEL ID: 6770 SERIAL #:
AVAILABLE PORTION:
T.0040S., R.1000W., 6TH PM
Section 3: SENE,W2SE;
Section 4: ALL;
Section 9: ALL;
Section 10: ALL;

Rio Blanco County
Colorado 2440.000 Acres

DEFERRED PORTION:
NONE

PARCEL ID: 6771 SERIAL #:
AVAILABLE PORTION:
T.0040S., R.1000W., 6TH PM
Section 1: Lot 5-16;
Section 1: W2;
Section 2: ALL;
Section 11: ALL;

Rio Blanco County
Colorado 1975.560 Acres

DEFERRED PORTION:
NONE

PARCEL ID: 6772 SERIAL #:
AVAILABLE PORTION:
T.0040S., R.1000W., 6TH PM
Section 15: N2NW,SWNW;
Section 16: ALL;

Rio Blanco County
Colorado 760.000 Acres

DEFERRED PORTION:
T.0040S., R.1000W., 6TH PM

Section 15: E2,SENW,SW;	Sage-grouse General Habitat: suitable ridgeline habitat parallel to and abutting Priority Habitat
Section 22:N2NE, SENE, N2NW;	Sage-grouse General Habitat: suitable ridgeline habitat parallel to and abutting Priority Habitat

Rio Blanco County
Colorado 720.000 Acres

PARCEL ID: 6773 SERIAL #:
AVAILABLE PORTION:
T.0040S., R.1000W., 6TH PM
Section 17: ALL;
Section 18: E2E2;
Section 19: NENE;
Section 20: W2;

Rio Blanco County
Colorado 1160.000 Acres

DEFERRED PORTION:
T.0040S., R.1000W., 6TH PM.

Section 18, W2E2,W2	Lands with wilderness characteristics unit 1 (Pike Ridge)
Section 19,W2NE,SENE,NW,SW,SE	Lands with wilderness characteristics unit 1 (Pike Ridge)

Rio Blanco County
Colorado 1080.000 Acres

PARCEL ID: 6776 SERIAL #:
AVAILABLE PORTION:
T.0040S., R.1010W., 6TH PM
Section 3: NWNW,
Section 4: N2N2,S2NW,SWNE, SW, SWSE;
Section 9: N2SW,SWSW,
Section 18: E2NE,SWNE,NW;

Rio Blanco County
Colorado 920.000 Acres

DEFERRED PORTION:
T.0040S., R.1010W., 6TH PM.,

Section 3:NE,E2NW, SWNW,SW,SE	Lands with wilderness characteristics unit 3 (Brushy Point)
Section 4: SENE, E2SE,NWSE	Lands with wilderness characteristics unit 3 (Brushy Point)
Section 9:,SESW,SE	Lands with wilderness characteristics unit 3 (Brushy Point)
Section 10:ALL	Lands with wilderness characteristics unit 3 (Brushy Point)

Rio Blanco County
Colorado 1600.000 Acres

PARCEL ID: 6777 SERIAL #:
AVAILABLE PORTION:
T.0040S., R.1010W., 6TH PM
Section 15: E2NW,S2;
Section 21: NE;

Rio Blanco County
Colorado 560.000 Acres

DEFERRED PORTION:
T.0040S., R.1010W., 6TH PM

Section 15:NE,W2NW	Lands with wilderness characteristics unit 3 (Brushy Point)
Section 16: W2NE, E2SE	Lands with wilderness characteristics unit 3 (Brushy Point)
Section 21: NW,SW,SE	Lands with wilderness characteristics unit 3 (Brushy Point)

Rio Blanco County
Colorado 880.000 Acres

PARCEL ID: 6778 SERIAL #:
AVAILABLE PORTION:
T.0010N., R.1030W., 6TH PM
Section 17: NESW;
Section 30: E2SW;

Rio Blanco County
Colorado 120.000 Acres

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

Section 30: E2, E2NW	Lands with wilderness characteristics unit 30 (Shavetail Wash)

Rio Blanco County
Colorado 400.000 Acres

PARCEL ID: 6779 SERIAL #:
AVAILABLE PORTION:
NONE

DEFERRED PORTION:
T.0050S., R.1010W., 6TH PM

Section 10: SW	Lands with wilderness characteristics unit 1 (Pike Ridge)
Section 15: NENW,W2W2,SESW	Lands with wilderness characteristics unit 1 (Pike Ridge)
Section 16: ALL	Lands with wilderness characteristics unit 1 (Pike Ridge)
Section 21: ALL	Lands with wilderness characteristics unit 1 (Pike Ridge)
Section 22: ALL	Lands with wilderness characteristics unit 1 (Pike Ridge)

Garfield County
Colorado 2320.000 Acres

PARCEL ID: 6783 SERIAL #:
AVAILABLE PORTION:
T.0010S., R.0970W., 6TH PM
Section 15: E2SE;
T.0010N., R.0970W., 6TH PM
Section 33: Lot 3,4;
Section 33: N2S2;

Rio Blanco County
Colorado 294.130 Acres

DEFERRED PORTION:
NONE

PARCEL ID: 6790 SERIAL #:
AVAILABLE PORTION:
NONE

DEFERRED PORTION: Entire Parcel ID 6790
T.0010N., R.1040W., 6TH PM

Section 23: N2NWSE;	Master Leasing Plan
Section 24: Lot 2,3,5,9, 10;	Master Leasing Plan and White River 100 year Floodplain
Section 24: W2NE,NWSE;	Master Leasing Plan and White River 100 year Floodplain
Section 25: Lot 5,6,8,10,11;	Master Leasing Plan
Section 25: Lot 7;	Master Leasing Plan and White River 100 year Floodplain
Section 26: Lot 4,8;	Master Leasing Plan and White River 100 year Floodplain
Section 26: Lot 6,7;	Master Leasing Plan
Section 26: SWNW,NWSW;	Master Leasing Plan and White River 100 year Floodplain
Section 26: SWSW,SESW,S2SE;	Master Leasing Plan
Section 27: Lot 3;	Master Leasing Plan and White River 100 year Floodplain
Section 27: Lot 4;	Master Leasing Plan

Rio Blanco County
Colorado 636.57 Acres

PARCEL ID: 6812 SERIAL #:
AVAILABLE PORTION:
T.0050S., R.1010W., 6TH PM
Section 18: SENW;

Garfield County
Colorado 40.000 Acres

DEFERRED PORTION:
NONE

PARCEL ID: 6813 SERIAL #:
AVAILABLE PORTION:
T.0010N., R.1020W., 6TH PM
Section 20: E2,NW,N2SW;

Rio Blanco County
Colorado 560.000 Acres

DEFERRED PORTION:
T.0010N., R.1020W., 6TH PM

Section 20: S2SW	Lands with wilderness characteristics unit 10 (Banta Ridge)

Rio Blanco County
Colorado 80.000 Acres

PARCEL ID: 6814 SERIAL #:
AVAILABLE PORTION:
T.0030N., R.0960W., 6TH PM
Section 1: S2SW;

Moffat County
Colorado 80.000 Acres

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

Section 1: NWSW;	Local knowledge: Sage-grouse General Habitat; mesic brood habitat abutting Priority Habitat
Section 3: SENE, ,SWSE;	Lands with wilderness characteristics Unit 19; Local knowledge: Sage-grouse General Habitat, mesic brood habitat abutting Priority Habitat
Section 3: Lot 16, 17, 20, 26;	Lands with wilderness characteristics Unit 19; Local knowledge: Sage-grouse General Habitat, mesic brood habitat abutting Priority Habitat

Moffat County
Colorado 145.89 Acres

PARCEL ID: 6815 SERIAL #:
AVAILABLE PORTION:
NONE

DEFERRED PORTION: Entire Parcel ID 6815
T.0030S., R.0990W., 6TH PM

Section 13: SE;	Black Sulphur; recently recognized CRCT fisheries
Section 24: N2NE, SWNE,NW,N2SW, N2SW, SWSW;	Black Sulphur; recently recognized CRCT fisheries

Section 24: SENE,SESW,N2SE;	Sage-grouse General Habitat: continuous sagebrush habitat extending from Priority Habitat

Rio Blanco County
Colorado 720.000 Acres

PARCEL ID: 6816 SERIAL #:
AVAILABLE PORTION:
T.0040N., R.0960W., 6TH PM
Section 25: W2NW,NWSW;
Section 26: NE,W2,N2SE,SWSE;
Section 27: E2,NENW,W2W2;
Section 34: E2,SENW,E2SW;
Section 35: Lot 1,3,5;
Section 35: NWNE,N2NW;

Moffat County
Colorado 1897.94 Acres

DEFERRED PORTION:
T.0040N., R.0960W., 6TH PM

Section 35: Lot 10,12,14:	Sage-grouse General Habitat: continuous sagebrush habitat extending from Priority Habitat

Moffat County
Colorado 22.06 Acres

PARCEL ID: 6817 SERIAL #:
AVAILABLE PORTION:
T.0040N., R.0960W., 6TH PM
Section 28: E2E2,SWSE;
Section 33: Lot 4,5;
Section 33: E2,SESW;

Moffat County
Colorado 577.200 Acres

DEFERRED PORTION:
T.0040N., R.0960W., 6TH PM

Section 20: SWNW,S2;	Lands with wilderness characteristics unit 24 (Pinto Gulch)
Section 28: NW,W2SW	Lands with wilderness characteristics unit 24 (Pinto Gulch)

Section 29: ALL;	Lands with wilderness characteristics unit 24 (Pinto Gulch)
Section 32: ALL;	Lands with wilderness characteristics unit 24 (Pinto Gulch)
Section 33: Lot 1,8;	Lands with wilderness characteristics unit 24 (Pinto Gulch)

Moffat County
Colorado 1942.800 Acres

PARCEL ID: 6833 SERIAL #:
AVAILABLE PORTION:
NONE

DEFERRED PORTION: Entire Parcel ID 6815
T.0050S., R.1010W., 6TH PM

Section 28: W2NE,NW;	Lands with wilderness characteristics unit 1 (Pike Ridge)
Section 29: E2NE,NWNE,N2NW;	Lands with wilderness characteristics unit 1 (Pike Ridge)

Garfield County
Colorado 440.000 Acres

PARCEL ID: 6836 SERIAL #:
AVAILABLE PORTION:
T.0040N., R.0960W., 6TH PM
Section 8: Lot 5-7;
Section 8: SE;
Section 9: Lot 7,8;
Section 9: SW;
Section 17: E2,S2NW,E2SW,NWSW;
Section 18: SENE,NESE,S2SE;

Moffat County
Colorado 1162.44 Acres

DEFERRED PORTION:
T.0040N., R.0960W., 6TH PM

Section 19: Lot 7,8;	Lands with wilderness characteristics unit 24 (Pinto Gulch)
Section 19: E2,E2W2;	Lands with wilderness characteristics unit 24 (Pinto Gulch)

Moffat County
Colorado 558.080 Acres

PARCEL ID: 6837 SERIAL #:
AVAILABLE PORTION:
T.0040N., R.0960W., 6TH PM
Section 21: N2N2,SWNW,SENE,E2SE;
Section 22: SW,S2SE;
Section 23: S2S2,NESE;

Moffat County
Colorado 760.000 Acres

DEFERRED PORTION:
T.0040N., R.0960W., 6TH PM

Section 21: SWNE,SENW,SW,NWSE	Lands with wilderness characteristics unit 24 (Pinto Gulch)
Section 30: Lot 5-8;	Lands with wilderness characteristics unit 24 (Pinto Gulch)
Section 30: E2,E2W2;	Lands with wilderness characteristics unit 24 (Pinto Gulch)
Section 31: Lot 5-8;	Lands with wilderness characteristics unit 24 (Pinto Gulch)
Section 31: E2,E2W2;	Lands with wilderness characteristics unit 24 (Pinto Gulch)

Moffat County
Colorado 1551.920 Acres

Attachment C: Alternative 3 – Parcels Available for Lease

June 2014 – Colorado Competitive Oil and Gas Lease Sale

PARCEL ID: 6760

T.0010S., R.0970W., 6TH PM
Section 8: NWNE,SENE,NW;
Section 8: W2SW,SESW,SESE;

Rio Blanco County
Colorado 400.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

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-TL-08 to protect big game severe winter range.

The following lands are subject to Exhibit WR-NSO-09 to protect remnant vegetation associations:
T.0001S., R.097W., 6th PM
Section 8: SESE.

The following lands are subject to Exhibit WR-NSO-08 to protect threatened and endangered plant species:
T.0010S., R.0970W., 6TH PM
Section 8: NWNE,SENE,NW;
Section 8: W2SW,SESW,SESE;

BLM; CON: WRFO

PARCEL ID: 6761

T.0010S., R.0970W., 6TH PM
Section 6: Lot 6,7;
Section 6: E2SW,SE;
Section 7: Lot 2-4;
Section 7: E2,SENW,E2SW;

Rio Blanco County
Colorado 884.180 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

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-TL-08 to protect big game severe winter range

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0010S., R.0970W., 6TH PM
Section 6: Lot 6;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0010S., R.0970W., 6TH PM
Section 6: Lot 6,7;
Section 6: NESW,SESW;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0010S., R.0970W., 6TH PM
Section 6: Lot 6;
Section 6: NESW;

The following lands are subject to Exhibit WR-NSO-08 to protect threatened and endangered plant species:
T.0010S., R.0970W., 6TH PM
Section 6: NESW, SE
Section 7: Lot 3,4;
Section 7: NE,E2SW,SE;

BLM; CON: WRFO

PARCEL ID: 6765

T.0050S., R.1010W., 6TH PM
Section 18: Lot 5,8,9,12;
Section 18: NENE, W2NE, NESW;

Garfield County

Colorado 280.00 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range.

All lands are subject to Exhibit WR-CSU-01 to protect fragile soils.

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

The following lands are subject to Exhibit WR-NSO-01 to protect potential landslide areas:
T.0050S., R.1010W., 6TH PM
Section 18: NWNE;

The following lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat:
T.0050S., R.1010W., 6TH PM
Section 18: E2NE,SESW,SE;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0050S., R.1010W., 6TH PM
Section 18: Lot 8,9,12,
Section 18: NESW;

BLM; CON: WRFO

PARCEL ID: 6766

T.0050S., R.1010W., 6TH PM
Section 23: NENE;

Garfield County
Colorado 40.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat.

All lands are subject to Exhibit WR-NSO-01 to protect potential landslide areas.

All lands are subject to Exhibit WR-CSU-01 to protect fragile soils.

All lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern.

All lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range.

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

BLM; CON: WRFO

PARCEL ID: 6768

T.0040S., R.1000W., 6TH PM
Section 13: N2NW;
Section 14: NENE,N2NW;

Rio Blanco County
Colorado 200.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat.

All lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range.

All lands are subject to Exhibit WR-TL-06 to protect sage-grouse nesting habitat.

All lands are subject to Exhibit WR-CSU-01 to protect fragile soils.

All lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern.

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-09 to protect sensitive plants.

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0040S., R.1000W., 6TH PM
Section 13: N2NW;
Section 14: N2NW, NENE;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0040S., R.1000W., 6TH PM
Section 14: N2NW;
PVT/BLM; CON: WRFO

PARCEL ID: 6769

T.0040S., R.1000W., 6TH PM
Section 5: ALL;
Section 6: ALL;
Section 7: NE,E2NW, NESW,N2SE,SESE;
Section 8: ALL;

Rio Blanco County
Colorado 2320.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-CSU-01 to protect fragile soils.

All lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat.

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-02 to protect areas of critical environmental concern:
T.0040S., R.1000W., 6TH PM
Section 5: N2,N2SW,SWSW,NWSE;
Section 6: E2,SENW,NESW,S2SW;
Section 7: W2E2,W2;
Section 8: SWNE,SENW,N2SW,SESW,NWSE;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:
T.0040S., R.1000W., 6TH PM
Section 5: W2NW,SWNW,W2SW,SESW,SE;
Section 6: E2SE,SWSE;
Section 7: NE,N2SE,SESE;
Section 8: ALL;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0040S., R.1000W., 6TH PM
Section 7: NESW;

PVT/BLM; CON: WRFO

PARCEL ID: 6770

T.0040S., R.1000W., 6TH PM
Section 3: SENE,W2,SE;
Section 4: ALL;
Section 9: ALL;
Section 10: ALL;

Rio Blanco County
Colorado 2440.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat.

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

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:
T.0040S., R.1000W., 6TH PM
Section 3: NW,N2SW,SWSW;
Section 4: E2,E2NW,E2SW,SWSW;
Section 9: ALL;
Section 10: W2NW,S2SW,NESE,S2SE;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0040S., R. 1000W., 6TH PM

Section 10: E2SE;

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0040S., R.1000W., 6TH PM
Section 3: SENE,W2,N2SE,SESE;
Section 4: ALL;
Section 9: N2,NESW,S2SW,SE;
Section 10: NE,W2NW,SENW,S2;

The following lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern:
T.0040S., R.1000W., 6TH PM
Section 3: SENE,NW,E2SW,SE;
Section 4: N2N2,SENE,SWNW,SESW,W2SE;
Section 9: E2NW;
Section 10: ALL;

The following lands are subject to Exhibit WR-NSO-09 to protect BLM sensitive plants:
T.0040S., R.1000W., 6TH PM
Section 10: E2SE,

BLM; CON: WRFO

PARCEL ID: 6771

T.0040S., R.1000W., 6TH PM
Section 1: Lot 5-16;
Section 1: W2;
Section 2: ALL;
Section 11: ALL;

Rio Blanco County
Colorado 1975.560 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat.

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

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:
T.0040S., R.1000W., 6TH PM
Section 1: Lots 5,10-12,14-16;
Section 2: E2SW;W2SE,SESE;
Section 11: E2,E2NW,SWNW,SW;

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0040S., R.1000W., 6TH PM
Section 1: Lot 5-16;
Section 1: W2;
Section 2: NENE,W2NE,W2,W2SE,SESE;
Section 11: ALL;

The following lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern:
T.0040S., R.1000W., 6TH PM
Section 1: Lot 5,6,10,11,14-16;
Section 1: W2;
Section 2: ALL;
Section 11: ALL;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0040S., R.1000W., 6TH PM
Section 11: SW,W2SE;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0040S., R.1000W., 6TH PM
Section 11: SW;

The following lands are subject to Exhibit WR-NSO-09 to protect BLM sensitive plants:
T.0040S., R.1000W., 6TH PM
Section 11: NENE, W2NE, SWNE, NWSE, NESW, W2SW
BLM; CON: WRFO

PARCEL ID: 6772

T.0040S., R.1000W., 6TH PM
Section 15: N2NW,SWNW;
Section 16: ALL;

Rio Blanco County
Colorado 760.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-CSU-01 to protect fragile soils.

All lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat.

All lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range.

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-09 to protect sensitive plants.

The following lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern:
T.0040S., R.1000W., 6TH PM
Section 15: N2NW,SWNW
Section 16: NE,NENW,S2NW,S2;

PVT/BLM; CON: WRFO

PARCEL ID: 6773

T.0040S., R.1000W., 6TH PM
Section 17: ALL;
Section 18: E2E2;
Section 19: NENE;
Section 20: W2;

Rio Blanco County
Colorado 1160.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat

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

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.1000W., 6TH PM
Section 17: NWNE,W2,SE;
Section 18: E2E2;
Section 19: NENE;
Section 20: W2;

The following lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern:
T.0040S., R.1000W., 6TH PM
Section 17: S2NW,NWSW,SESE;

PVT/BLM; CON: WRFO

PARCEL ID: 6776

T.0040S., R.1010W., 6TH PM
Section 3: NWNW,
Section 4: N2N2,S2NW,SWNE, SW, NWSE, SESW;
Section 9: N2SW,SWSW,
Section 18: E2NE,SWNE,NW;

Rio Blanco County
Colorado 920.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

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
Section 4: W2NE,W2,
Section 9: N2SW,SWSW;

Section 18: E2NE,SWNE,NW;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:
T.0040S., R.1010W., 6TH PM
Section 3: N2NW;
Section 4: N2,SW,W2SE;
Section 9: SW;
Section 18: NW;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests
T.0040S., R.1010W., 6TH PM
Section 18: SWNE; NENE;

The following lands are subject to Exhibit WR-TL-04 to protect raptors
T.0040S., R.1010W., 6TH PM
Section 10: SWSW;
Section 18: E2NW; E2NE; SWNE;

The following lands are subject to Exhibit WR-CSU-02 to protect areas of critical environmental concern:
T.0040S., R.1010W., 6TH PM
Section 9: SESW;

BLM; CON: WRFO

PARCEL ID: 6777

T.0040S., R.1010W., 6TH PM
Section 15: E2NW,S2;
Section 21: NE;

Rio Blanco County
Colorado 560.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-CSU-06 to protect Colorado River cutthroat trout habitat.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0040S., R.1010W., 6TH PM

Section 15: E2NW,W2SW,SE;
Section 21: NE;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0040S., R.1010W., 6TH PM
Section 15: E2NW; N2SW;
Section 16: W2NE,E2SE;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:
T.0040S., R.1010W., 6TH PM
Section 15: S2;
Section 21: NE;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0040S., R.1010W., 6TH PM
Section 15: W2NW,NWSW;
Section 16: W2NE,NESE;

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:
T.0040S., R.1010W., 6TH PM
Section 15: E2NW,S2;
Section 16: W2NE;
Section 21: All;

PVT/BLM; CON: WRFO

PARCEL ID: 6778

T.0010N., R.1030W., 6TH PM
Section 17: NESW;
Section 30: E2SW;

Rio Blanco County
Colorado 120.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-NSO-08 to protect threatened and endangered plant species.

All lands are subject to Exhibit WR-CSU-01 to protect fragile soils.

All lands are subject to Exhibit WR-TL-08 to protect big game severe winter range.

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

The following lands are subject to Exhibit WR-TL-05 to protect bald eagle winter roosts and concentration areas:
T.0010N., R.1030W., 6TH PM
Section 17: NESW;

The following lands are subject to Exhibit WR-NSO-05 to protect bald eagle roosts:
T.0010N., R.1030W., 6TH PM
Section 17: NESW;

BLM; CON: WRFO

PARCEL ID: 6783

T.0010S., R.0970W., 6TH PM
Section 15: E2SE;
T.0010N., R.0970W., 6TH PM
Section 33: Lot 3,4;
Section 33: N2S2;

Rio Blanco County
Colorado 294.130 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-TL-08 to protect big game severe winter range.

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

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0010S., R.0970W., 6TH PM
Section 15: E2SE;

The following lands are subject to Exhibit WR-TL-01 to protect the nests of threatened, endangered, or candidate raptors:
T.0010N., R.0970W., 6TH PM
Section 33: Lot 3;

BLM; CON: WRFO

PARCEL ID: 6812

T.0050S., R.1010W., 6TH PM
Section 18: SENW;

Garfield County
Colorado 40.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-CSU-01 to protect fragile soils.

All lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range.

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 WR-TL-04 to protect raptors:
T.0050S., R.1010W., 6TH PM
Section 18: SENW;

BLM; CON: WRFO

PARCEL ID: 6813

T.0010N., R.1020W., 6TH PM
Section 20: E2,NW,N2SW;

Rio Blanco County
Colorado 560.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-TL-08 to protect big game severe winter range.

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

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0010N., R.1020W., 6TH PM
Section 20: NW,N2SW;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0010N., R.1020W., 6TH PM
Section 20: W2NW,NWSW;

BLM; CON: WRFO

PARCEL ID: 6814

T.0030N., R.0960W., 6TH PM
Section 1: S2SW;

Moffat County
Colorado 80.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-CSU-01 to protect fragile soils.

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

PVT/BLM; CON: WRFO

PARCEL ID: 6816

T.0040N., R.0960W., 6TH PM
Section 25: W2NW,NWSW;
Section 26: NE,W2,N2SE,SWSE;
Section 27: E2,NENW,W2W2;
Section 34: E2,SENW,E2SW;
Section 35: Lot 1,3,5;
Section 35: NWNE,N2NW;

Moffat County
Colorado 1897.94 Acres

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

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

All lands are subject to Exhibit WR-CSU-01 to protect fragile soils.

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:
T.0040N., R.0960W., 6TH PM
Section 25: W2NW;
Section 26: N2,SW,W2SE;
Section 27: E2,NENW,W2W2;
Section 34: NE,NWSE;
Section 35: N2NW;

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:
T.0040N., R.0960W., 6TH PM
Section 25: W2NW,NWSW,NESE;
Section 26: NE,W2,N2SE,SWSE;
Section 27: E2,NENW,W2W2;
Section 35: Lot 1,3,5;
Section 35: NWNE,N2NW;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0040N., R.0960W., 6TH PM
Section 34: NE,SENW,E2SW,SE;
Section 35: Lot 1,3,5;
Section 35: NWNE,N2NW;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0040N., R.0960W., 6TH PM
Section 34: SE;

Section 35: Lot 1,3,5;
Section 35: N2NW;

PVT/BLM; CON: WRFO

PARCEL ID: 6817

T.0040N., R.0960W., 6TH PM
Section 28: E2E2,SWSE;
Section 33: Lot 4,5;
Section 33: E2,SESW;

Moffat County
Colorado 577.200 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

The following lands are subject to Exhibit WR-CSU-01 to protect fragile soils:
T.0040N., R.0960W., 6TH PM
Section 28: E2SE;
Section 33: Lot 4,5;
Section 33: E2,SESW;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:
T.0040N., R.0960W., 6TH PM
Section 28:E2E2, SWSE;
Section 33: NE;

The following lands are subject to Exhibit WR-TL-04 to protect raptors:
T.0040N., R.0960W., 6TH PM
Section 28: S2SE;
Section 33: Lot 4,5;
Section 33: E2; SESW;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0040N., R.0960W., 6TH PM
Section 33: Lot 4;
Section 33: NE; SESW;

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:
T.0040N., R.0960W., 6TH PM
Section 28: E2E2, SWSE;
Section 33: Lot 4,
Section 33: E2,SESW;

BLM; CON: WRFO

PARCEL ID: 6836

T.0040N., R.0960W., 6TH PM
Section 8: Lot 5-7;
Section 8: SE;
Section 9: Lot 7,8;
Section 9: SW;
Section 17: E2,S2NW,E2SW,NWSW;
Section 18: SENE,NESE,S2SE;

Moffat County
Colorado 1162.440 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-CSU-01 to protect fragile soils.
The following lands are subject to Exhibit WR-TL-04 to protect raptor nesting and fledgling habitat:
T.0040N., R.0960W., 6TH PM
Section 8: SESE;
Section 9: S2SW;
Section 17: NENE;

The following lands are subject to Exhibit WR-NSO-03 to protect raptor nests:
T.0040N., R.0960W., 6TH PM
Section 9: S2SW;

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:
T.0040N., R.0960W., 6TH PM
Section 8: Lots 5-7;
Section 8: SE;

Section9: Lot7,8;
Section 9: SW;
Section 17: E2,S2NW,E2SW,NWSW;;
Section 18: SENE,NESE,S2SE;;

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:
T.0040N., R.0960W., 6TH PM
Section 8: Lot 5-7;
Section 8: SE;
Section 9: SW;
Section 17: E2,S2NW,E2SW,NWSW;
Section 18: SENE,NESE,S2SE;

BLM; CON: WRFO

PARCEL ID: 6837

T.0040N., R.0960W., 6TH PM
Section 21: N2N2,SWNW,SENE,E2SE;
Section 22: SW,S2SE;
Section 23: S2S2,NESE;

Moffat County
Colorado 760.000 Acres

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

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

All lands are subject to Exhibit CO-56 to alert lessee of potential supplementary air analysis.

All lands are subject to Exhibit WR-CSU-01 to protect fragile soils.

The following lands are subject to Exhibit WR-TL-09 to protect deer and elk summer range:
T.0040N., R.0960W., 6TH PM
Section 21: N2N2,SWNW,SENE,E2SE;
Section 22: SW,S2SE;
Section 23: S2S2,NESE;

The following lands are subject to Exhibit WR-LN-02 to alert lessee of potential requirements to protect paleontological values:
T.0040N., R.0960W., 6TH PM

Section 21: N2,SW,N2SE,SESE;
Section 22: SW,S2SE;
Section 23: S2S2,NESE;
Section 30: Lot 5-8;
Section 30: E2,E2W2;
Section 31: Lot 5-8;
Section 31: E2,E2W2;

BLM; CON: WRFO

Attachment D: Exhibits Description
June 2014 – Colorado Competitive Oil and Gas Lease Sale

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 CO-56

LEASE NOTICE

Due to potential air quality concerns, supplementary air quality analysis may be required for any proposed development of this lease. This may include preparing a comprehensive emissions inventory, performing air quality modeling, and initiating interagency consultation with affected land managers and air quality regulators to determine potential mitigation options for any predicted significant impacts from the proposed development. Potential mitigation may include limiting the time, place, and pace of any proposed development, as well as providing for the best air quality control technology and/or management practices necessary to achieve area-wide air resource protection objectives. Mitigation measures would be analyzed through the appropriate level of NEPA analysis to determine effectiveness, and will be required or implemented as a permit condition of approval (COA). At a minimum, all projects and permitted uses implemented under this lease will comply with all applicable National Ambient Air Quality Standards and ensure Air Quality Related Values are protected in nearby Class I or Sensitive Class II areas that are afforded additional air quality protection under the Clean Air Act (CAA).

On the lands described below:

EXHIBIT WR-NSO-01

NO SURFACE OCCUPANCY STIPLATION

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

For the purpose of:

> PROTECTING LANDSLIDE AREAS. Identified soils are considered unstable and subject to slumping and mass movement. Surface occupancy will not be allowed in such areas delineated from U.S. Department of Agriculture Soil Conservation Service Order III Soil Surveys.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see Bureau of Land Management Manuals 1624 and 3101 or Forest Service Manuals 1950 and 2820.)

EXCEPTION:
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:

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:

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:

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-08

NO SURFACE OCCUPANCY STIPULATION

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

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:

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-CSU-01

CONTROLLED SURFACE USE STIPULATION

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

Surface disturbing activities will be allowed in these areas only after an engineered construction/reclamation plan is submitted by the operator and approved by the Area Manager. The following items must be addressed in the plan: 1) How soil productivity will be restored; 2) How surface runoff will be treated to avoid accelerated erosion such as riling, gullying, piping, and mass wasting.

On the lands described below:

For the purpose of:

PROTECTING FRAGILE SOILS ON SLOPES GREATER THAN 35 PERCENT & SALINE SOILS

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see Bureau of Land Management Manuals 1624 and 3101 or Forest Service Manuals 1950 and 2820.)

EXCEPTION:

An exception may be granted by the Area Manager if an environmental analysis of the proposed action identifies that the scale of the operation would not result in any long-term decrease in site productivity or increased erosion. An exception may also be granted by the Area Manager if a more detailed soil survey determines that soil properties associated with the disturbance do not meet fragile soil criteria.

MODIFICATION: None

WAIVER: None

EXHIBIT WR-CSU-02

CONTROLLED SURFACE USE STIPULATION

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

> These Areas of Critical Environmental Concern (ACEC) are known to contain, or have potential to contain, threatened or endangered plants or plants that are candidates for listing as threatened or endangered, State of Colorado plant species of concern, Bureau of Land Management sensitive plants, remnant vegetation associations, and/or unique plant communities. A plant inventory will be conducted prior to approving any surface disturbing activities within the ACEC boundaries. Surface disturbance will not be allowed within mapped locations of these plants. The presence of the above listed plants would require relocating surface disturbance or facilities more than 200 meters. The timing required for conducting the plant inventories may require deferring activities longer than 60 days.

On the lands described below:

For the purpose of:

> Protecting: ACECs

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see Bureau of Land Management Manuals 1624 and 3101 or Forest Service Manuals 1950 and 2820.)

EXCEPTION:
This stipulation may be excepted by the Area Manager if an environmental analysis of the proposed action indicates that the plants of concern would not be affected.

MODIFICATION: None

WAIVER: None

EXHIBIT WR-CSU-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:

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:

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:

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-TL-01

TIMING LIMITATION STIPULATION

No surface use is allowed during the following time period(s). This stipulation does not apply to operation and maintenance of production facilities.

> No development activities are allowed with 1/2 mile of identified nest sites from February 1 through August 15, or until fledgling and dispersal of young. Development activities will be allowed from August 16 through January 31.

On the lands described below:

For the purpose of (reasons):

> Protecting: LISTED, PROPOSED, OR CANDIDATE THREATENED OR ENDANGERED & BUREAU OF LAND MANAGEMENT SENSITIVE RAPTORS OTHER THAN BALD EAGLE 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-03

TIMING LIMITATION STIPULATION

No surface use is allowed during the following time period(s). This stipulation does not apply to operation and maintenance of production facilities.

> No development is allowed within one (1) mile of identified nests from February 1 through August 15, or until fledgling and dispersal of young. (Development activities will be allowed from August 16 through January 31) .

On the lands described below:

For the purpose of (reasons):

> Protecting: FERRUGINOUS HAWKS: This area encompasses the nests of ferruginous hawks which are candidates for listing under the Endangered Species Act.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see Bureau of Land Management Manuals 1624 and 3101 or Forest Service Manuals 1950 and 2820.)

EXCEPTION:

An exception may be granted to these dates by the Area Manager, if authorization is obtained from the U.S. Fish & Wildlife Service (through applicable provisions of the Endangered Species Act, Eagle Protection Act, or Migratory Bird Treaty Act) to harass, harm, wound, or kill in the context of active nesting attempts. An exception can also be granted if an environmental analysis of the proposed action indicates that nature or conduct of the activity could be conditioned so as not to impair the utility of nest for current or subsequent nesting activity or occupancy. The Area Manager may also grant an exception if the nest is unattended or remains unoccupied by May 15 of the project year.

MODIFICATION:
The Area Manager may modify the size of the stipulation area if an environmental analysis indicates that a portion of the area is nonessential to nest utility or function, or that the proposed action could be conditioned so as not to impair the utility of the nest site for current or subsequent nest activities or occupation. The stipulation may also be modified if the proponent, Bureau of Land Management, and where necessary, other affected interests, negotiate compensation that satisfactorily offsets anticipated impacts to raptor breeding activities and/or habitats. Modifications could also occur if sufficient information is provided that supports the contention that the action would not contribute to the suppression of breeding population densities or the population's production or recruitment regime from a Geographic Reference Area perspective. If the species status is downgraded, or if the species is delisted, the size of the timing limitation area may be reduced.

WAIVER:
A waiver may be granted if the species becomes extinct or there is not reasonable likelihood of site occupation over a minimum 10-year period.

EXHIBIT WR-TL-04

TIMING LIMITATION STIPULATION

No surface use is allowed during the following time period(s). This stipulation does not apply to operation and maintenance of production facilities.

> No development activities are allowed within 1/4 mile of identified nests from February 1 through August 15, or until fledgling and dispersal of young. (Development will be allowed from August 16 through January 31)

On the lands described below:

For the purpose of (reasons):

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

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:

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-06

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 nesting cover exceed 10 percent of the habitat available within 2 miles of identified leks. Further development, after this threshold has been exceeded, will not be allowed from April 15 through July 7. (Development can occur until 10 percent of the habitat associated with a lek is impacted, from then on, additional activity can occur from July 8 through April 14.)

On the lands described below:

For the purpose of (reasons):

Protecting: SAGE GROUSE NESTING HABITAT. This area encompasses suitable sage

grouse nesting habitat associated with individual leks.

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 and consultation with the Colorado Parks and Wildlife indicate that the proposed action could be conditioned so as not to affect nest attendance, egg/chick survival, or nesting success. An exception could also be granted if the proponent, Bureau of Land Management, and Colorado Parks and Wildlife negotiate compensation that would satisfactorily offset the anticipated losses of nesting habitat or nesting activities. Actions designed to enhance the long term utility or availability of suitable nest habitat may be excepted.

MODIFICATION:
The Area Manager may modify the size of the timing limitation area if an environmental analysis indicates that the proposed action could be conditioned so as not to affect nest attendance, egg/chick survival, or nesting success. Time frames may be modified if operations could be conditioned to allow a minimum of 70 percent of nesting attempts to progress through hatch.

WAIVER:
This stipulation may be waived if Colorado Parks and Wildlife determines that the described lands are incapable of serving the long term requirements of sage grouse nesting habitat and that these ranges no longer warrant consideration as components of sage grouse nesting habitat.

EXHIBIT WR-TL-08

TIMING LIMITATION STIPULATION

No surface use is allowed during the following time period(s). This stipulation does not apply to operation and maintenance of production facilities.

No development activity is allowed from December 1 through April 30. (Development activities are allowed from May 1 through November 30.)

On the lands described below:

For the purpose of (reasons):

PROTECTING BIG GAME SEVERE WINTER RANGE. This area encompasses big game severe winter range.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see Bureau of Land Management Manuals 1624 and 3101 or Forest Service Manuals 1950 and 2820.)

EXCEPTION:
The Area Manager may grant an exception in an environmental analysis indicates that the proposed action could be conditioned as not to interfere with habitat function or compromise animal condition within the project activity. An exception may also be granted if the proponent, Bureau of Land Management, and Colorado 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:

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-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:

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:

EXHIBIT WR-LN-03

LEASE NOTICE

WILD HORSE HABITAT: This lease parcel encompasses a portion of a wild horse herd management area. In order to protect wild horses within this area, intensive development activities may be delayed for a specified 60-day period within the spring foaling period between March 1 and June 15.

The lessee may be required to perform special conservation measures within this area including:

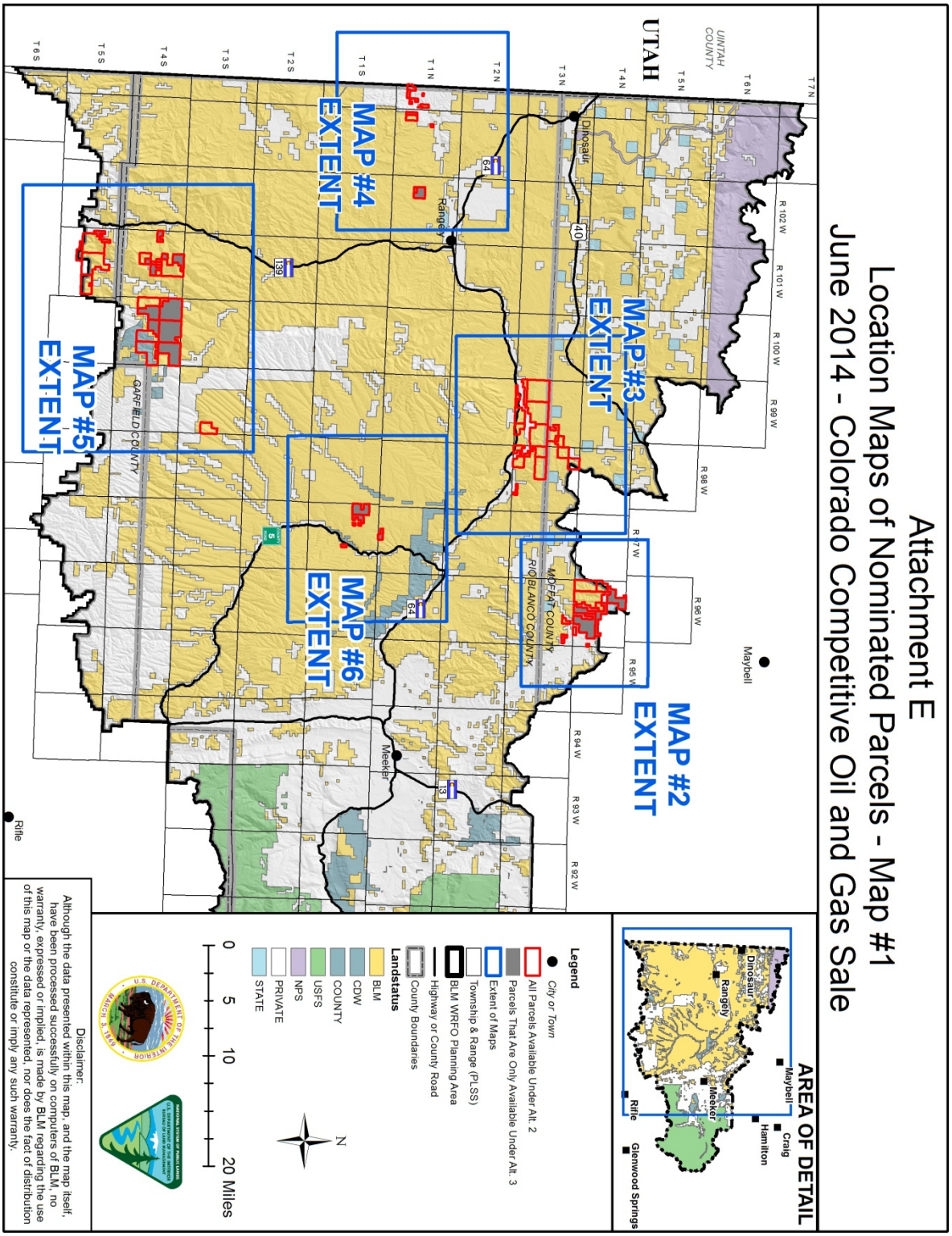
1. Habitat improvement projects in adjacent areas if development displaces wild horses from critical habitat.

2. Disturbed watering areas would be replaced with an equal source of water, having equal utility.

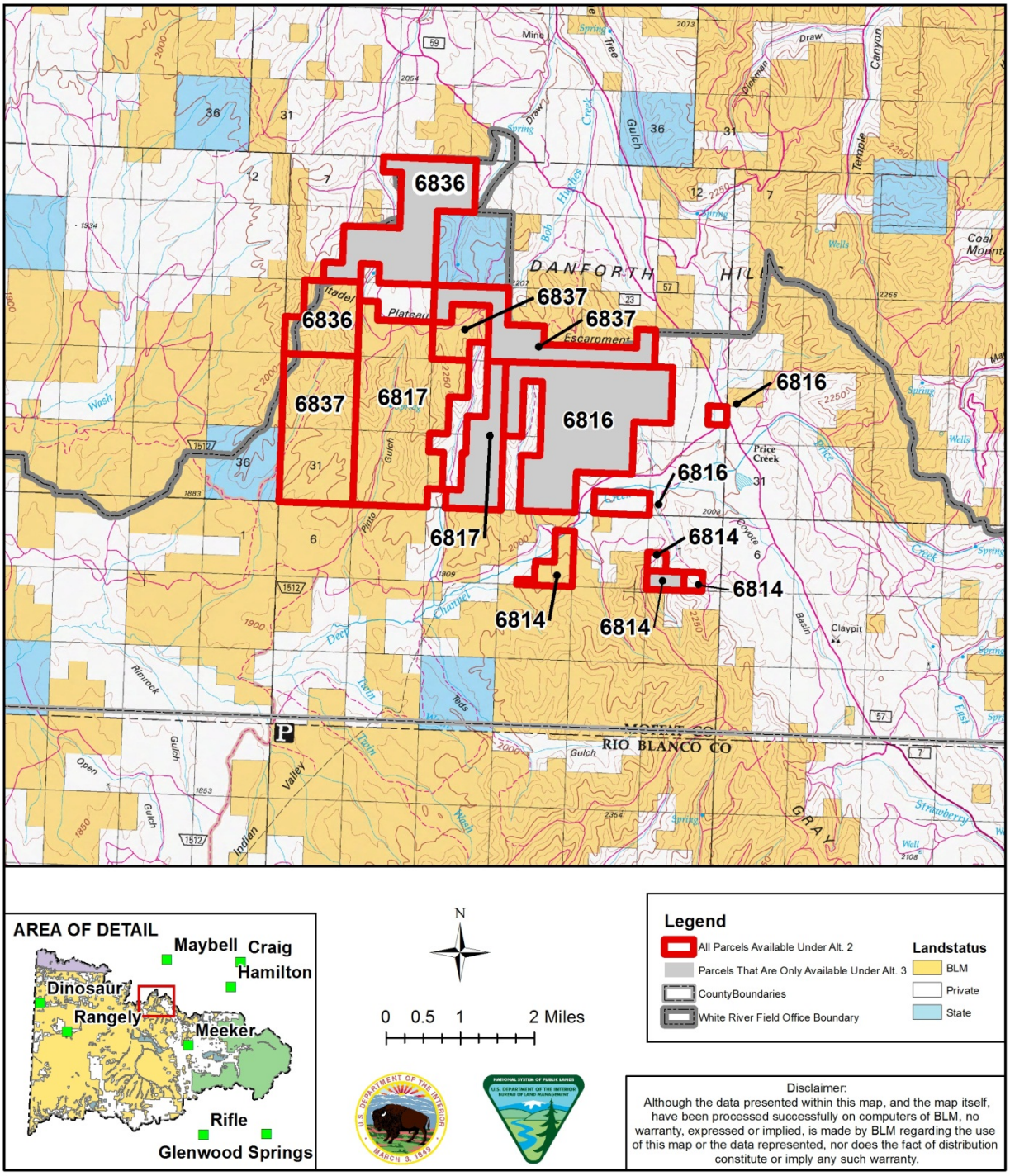
3. Activity/improvements would provide for unrestricted movement of wild horses between summer and winter ranges.

On the lands described below:

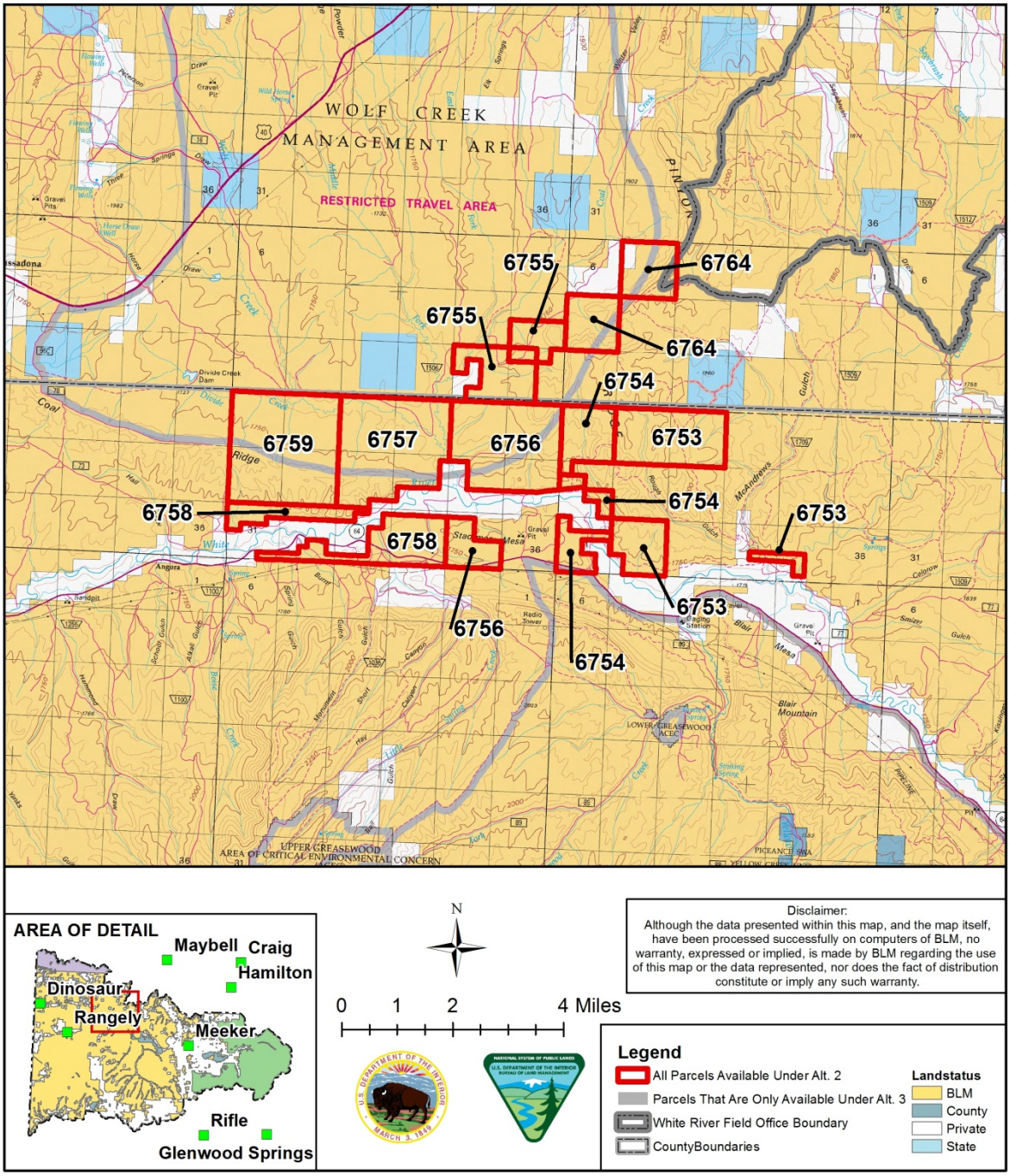
Attachment E: Location Maps of Nominated Parcels



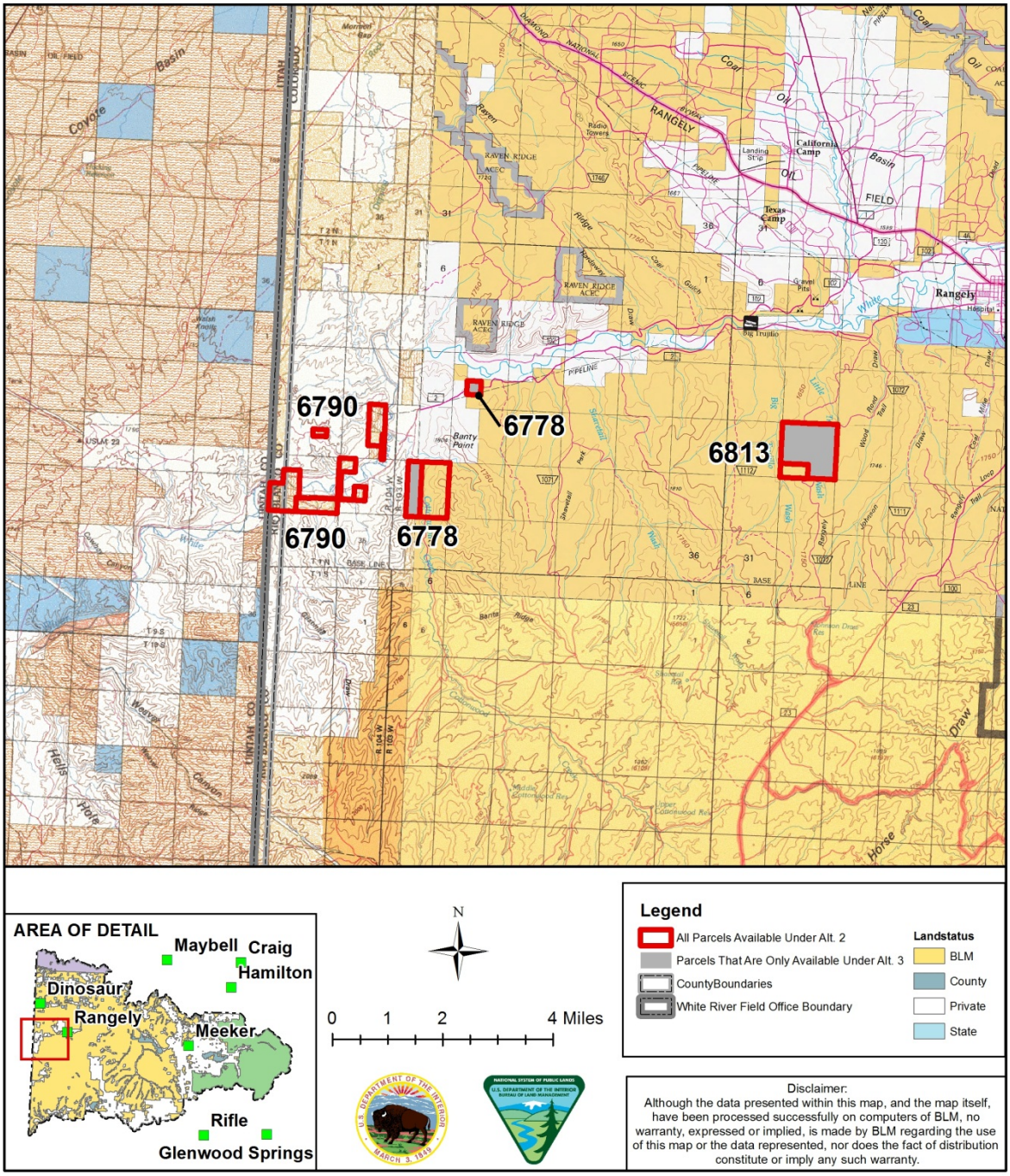
Attachment E
Location Map of Nominated Parcels - Map #2
June 2014 - Colorado Competitive Oil and Gas Sale



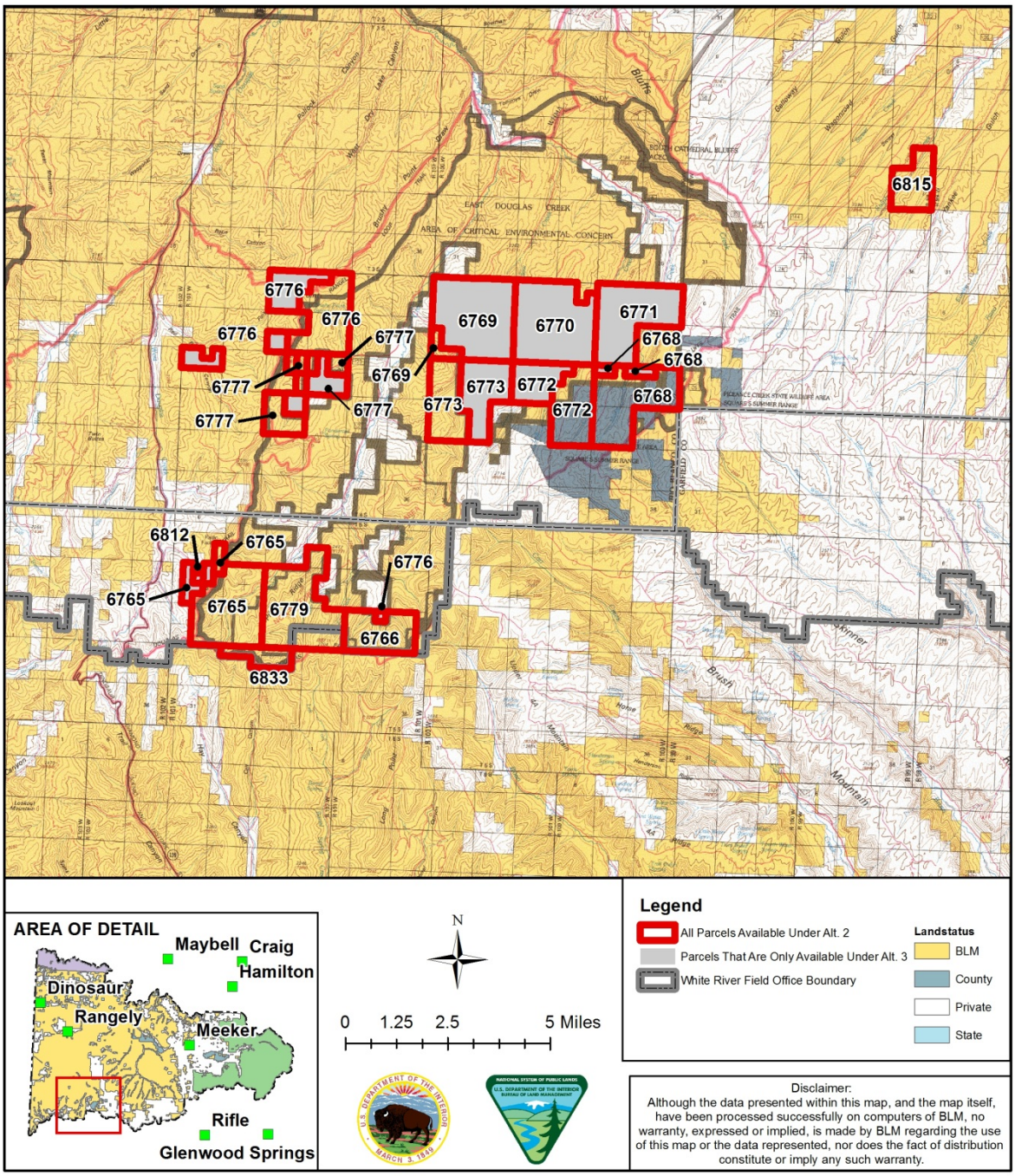
Attachment E
Location Map of Nominated Parcels - Map #3
June 2014 - Colorado Competitive Oil and Gas Sale



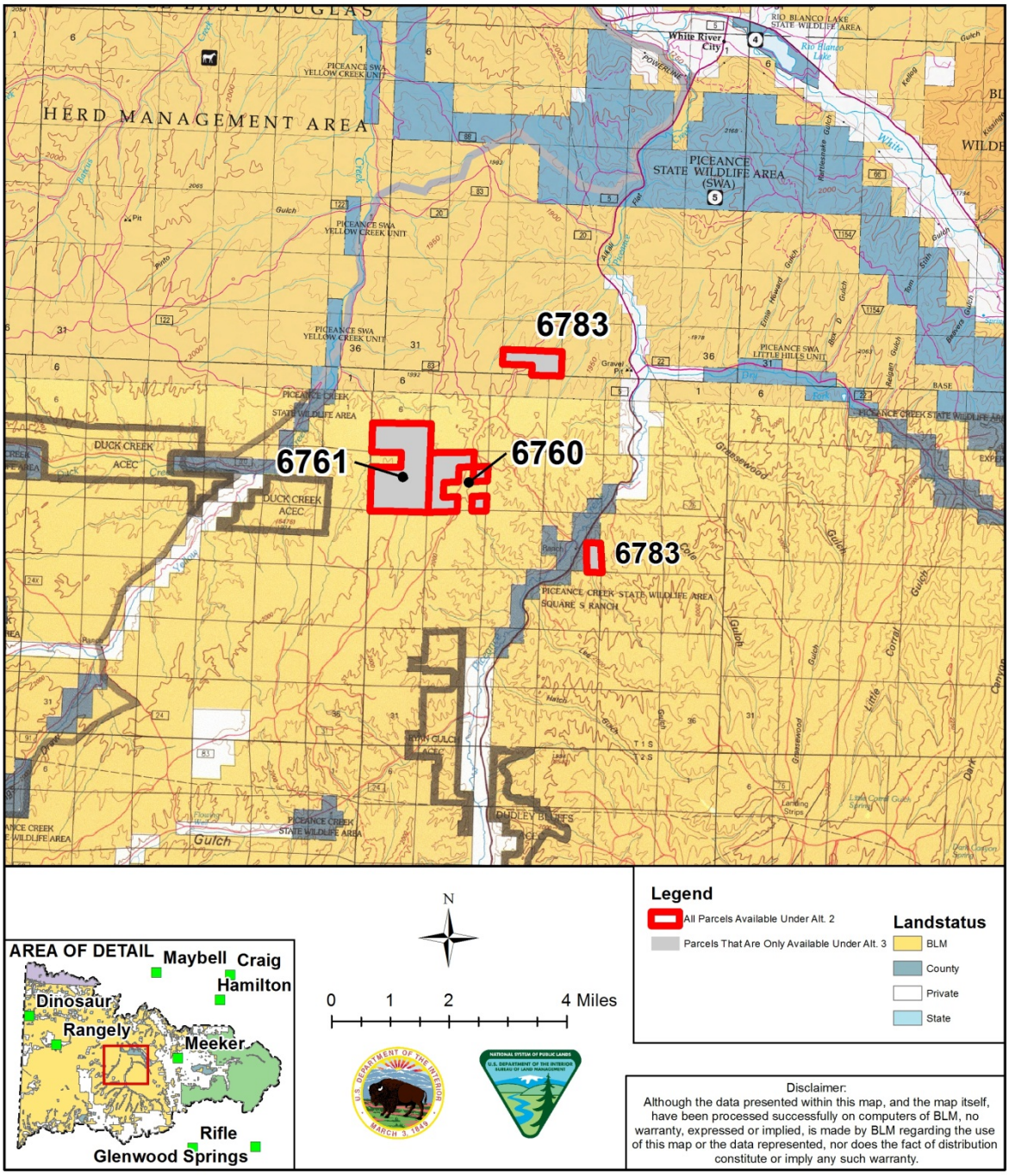
Attachment E
Location Map of Nominated Parcels - Map #4
June 2014 - Colorado Competitive Oil and Gas Sale



Attachment E
Location Map of Nominated Parcels - Map #5
June 2014 - Colorado Competitive Oil and Gas Sale



Attachment E
Location Map of Nominated Parcels - Map #6
June 2014 - Colorado Competitive Oil and Gas Sale



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Comment	**Resource**	**Comment**	**Response**
A-1	Wildlife	BLM attaches a number of stipulations, most notably timing stipulations, and relies upon them to reduce impacts to sensitive wildlife resources without ever analyzing the effectiveness of these stipulations.	Although the use of traditional stipulations have been criticized by some authors, recent research demonstrates or acknowledges (Holloran 2005, Holloran et al. 2010, Wyoming Wildlife Consultants 2009, Blickley et al. 2012) that timing limitations, which continue to be recommended for use by CPW and FWS, are capable of reducing impacts associated with behavioral and physiological effects. However, current research suggests that by themselves, these measures cannot stem progressive declines in populations subjected to pervasive or prolonged development activity. This form of mitigation is intended to reduce adverse behavioral influences on animals and, from the practical standpoint, the efficacy of their application can only be expected to manifest itself at the population level over time (i.e., sustained animal fitness and reproductive performance). CPW assumes this monitoring role and BLM continues to coordinate and cooperate with CPW to apply and refine management measures that are effective in achieving the State's wildlife population objectives in a multiple-use framework. The efficacy of timing limitations is discussed in the context of the literature. We admit that there are weaknesses in relying on timing limitations alone, but WRFO land use plan doesn't support the use of more restrictive remedies. All the habitat of substance is recommended deferred until updated measures are available. Blickley,J.L., D.Blackwood, and G.L.Patricelli. 2012. Experimental evidence for the effects of chronic anthropogenic noise on abundance of greater sage-grouse at leks. Conservation Biology 26(3): 461-471 [DOI: 10.1111/j.1523-1739.2012.01840.x] Holloran, M.J. 2005. Greater sage-grouse (*Centrocercus urophasianus*) population response to natural gas field development in western Wyoming. PhD Thesis. University of Wyoming, Laramie. Holloran, M.J., R.C. Kaiser, and W.A. Hubert. 2010. Yearling greater sage-grouse response to energy development in Wyoming. Journal of Wildlife Management 74(1): 65-72. Wyoming Wildlife Consultants. 2009. Greater sage-grouse winter habitat selection relative to natural gas field infrastructure in northern portions of the

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Comment	**Resource**	**Comment**	**Response**
			Pinedale Anticline project area, Sublette County, Wyoming. Annual Report. Pinedale, WY. 17pp.
A-2	Wildlife	Under Instruction Memorandum No. 2012-043, BLM officials retain the discretion to remove parcels from oil and gas lease sales of defer their inclusion in a lease auction during the pendency of a Resource Management Plan amendment, if these parcels involve Preliminary Priority Habitat or Preliminary General Habitat. Given the pendency of the Northwest Colorado Sage Grouse Plan Amendment EIS, and the perilous status of the sage grouse with regard to Endangered Species listing, these lands should all be deferred from leasing pending an outcome of the RMP amendments.	WRFO understands the implications of IM 2012-043 and have applied those criteria specific to PGH in formulating recommendations to defer all or portions of the proposed leases. All PPH was removed from leasing consideration as explained in Section 2.3 of the EA. With regard to PGH, WRFO considered deferring leasing authorizations ".where appropriate, depending on local characteristics, new science and/or data (e.g., migratory corridors or habitat between PPH), and relative habitat importance …". These considerations are discussed in Section 3.4.2.4 of the EA. Text has been added to this section to better clarify the deferral recommendations.
A-3	Wildlife	'No leasing in Priority Habitats' is one reasonable alternative which BLM has been asked to consider in its Sage Grouse Plan Amendments process, and also in its RMP revisions by BLM Instruction Memorandum require that National Technical Team recommendations be analyzed in detail, and leasing Core Area lands regardless of what screening mechanisms they have been subjected to will violate CEQ guidance.	PPH (Alternatives 2 and 3) and important components of PGH (Alternative 3) are being considered for deferral in consideration of broader sage-grouse planning efforts now underway.
A-4	Wildlife	We agree with BLM's recommendations to defer the offering of Parcels 6823, 6822, and 6782 under Alternative 3, which fall entirely or partially within Priority Habitats. We agree with BLM's recommendations to defer at least in part the offering of Parcels 6813, 6815, 6768, 6772, 6763, 6774, 6775, 6818, 6819, 6820, 6821, 6823, 6782, 6822, 6781, and 6767, assuming that all lands within Preliminary Priority Habitat are proposed for deferral. It is a wise decision to defer the long-term commitment of mineral leases at least until the sage grouse RMP amendment process is completed, in order to avoid foreclosing conservation options that may be selected for implementation under the RMP amendments. Because all PPH and all PGH habitats should be deferred entirely from the lease auction,	All PPH are being deferred from leasing consideration. Important components of PGH habitat were also considered for deferral in Alternative 3 (see response to Comment A-2), for example, sagebrush shrublands extending uninterrupted from similar PPH habitat, sagebrush-dominated ridgelines adjacent to PPH, and sagebrush bottomlands or terraces adjacent to mesic drainages or irrigated pasture/hayland. PGH that was generally not recommended for deferral were tracts of land on the margins of mapped PGH that were composed predominantly of slopes exceeding 25% slope, shale barrens, woodlands or forest types, or shrubland stands dominated by tall, dense deciduous shrubs (i.e., Utah serviceberry and Gambel oak) or xeric saltbush or greasewood communities.
A-5	Wildlife	any parcels entire comprised of a combination of PPH and PGH should be deferred or withdrawn from the lease sale, at least until the Northwest Colorado sage grouse plan amendment has been completed.	Refer to responses to Comments A2, A-3, and A-4.

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A-6	Wildlife	Parcels 6756, 6757, 6759, 6763, 6767, 6768, 6772, 6774, 6775, 6781, 6782, 6814, 6815, 6816, 6818, 6819, 6820, 6821, 6822, and 6823 have also been identified by BLM as being within identified sage grouse habitats. EA at 10. These parcels should be deferred from the lease auction.	Refer to response to Comment A-4.
A-7	Wildlife	Parcels 6814, 6816, 6759, 6757, 6758, 6756, 6755, 6764, 6778, 6768, 6772, 6769, and 6773 fall entirely or partially within PGH, and are earmarked for partial deferral. All potions of these parcels falling within PGH should be deferred as well, to maintain the broadest possible discretion for protecting PGH under the RMP amendment	Refer to response to Comment A-4.
A-8	Wildlife	pursuant to IM 2012-043. BLM should do its best to keep largely unleased areas of public land in Priority and General Habitats unleased, regardless of mineral ownership patterns.	Refer to responses to Comments A-3 and A-4.
A-9	Wildlife	grouse populations have continued to decline. These declines are attributable at least in part to habitat loss due to mining and energy development and associated roads, and to habitat fragmentation due to roads and well fields. Oil and gas development poses perhaps the greatest threat to sage-grouse viability in the region. The area within 2 to 3 miles of a sage-grouse lek is crucial to both the breeding activities and nesting success of local sage-grouse populations	Based on contemporary research, the potential influences of fluid mineral development on sage-grouse were discussed in Section 3.4.2.4 of the EA. As developed and defined by CPW, Preliminary Priority Habitat mapping encompasses important suitable habitat within 4 miles of active leks (see Section 3.4.2.4).
A-10	Wildlife	, impacts of oil and gas development to sage-grouse include (1) direct habitat loss from new construction, (2) increased human activity and pumping noise causing displacement, (3) increased legal and illegal harvest, (4) direct mortality associated with reserve pits, and (5) lowered water tables resulting in herbaceous vegetation loss. These impacts have not been thoroughly evaluated in the RMPs with full NEPA analysis.	Reasonably foreseeable effects of developing the proposed lease parcels have been discussed in the context of contemporary research in Section 3.4.2.4 of the EA. See also response to Comment A-3. Water table depression on sage-grouse habitats in the WRFO would be more commonly associated with historic channel incision. Fluid mineral development is not known to have prompted lowering of water tables on sage-grouse habitat in the WRFO.
A-11	Wildlife	Lease parcels should also be screened against Sage Grouse ACECs proposed in the context of the statewide Sage Grouse Plan Amendments EIS process. Proposed ACECs have been proposed for withdrawal from future oil and gas leasing. Parcels in each of these areas should be deferred pending the outcome of the Sage Grouse Plan Amendments process	Refer to response to Comment A-3. The ACEC proposed in Alternative C of the Northwest Colorado Greater Sage-Grouse Draft Land Use Plan Amendment/EIS consists of priority habitat. The BLM is not proposing to lease priority sage-grouse habitat in the June 2014 lease sale (see Section 2.3).
A-12	Wildlife	The EA references an unpublished study by Patricelli and others indicating that noise impacts have a negative impact of sage	WRFO is aware of this line of research and used Blickley et al. (2012) in another context. No further elaboration on development effects were considered

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		grouse. EA at 52. Blickley and Patricelli (2012) found that low-frequency noise from oil and gas development can interfere with the audibility of male sage grouse vocalizations	warranted since any sage-grouse habitat within 0.8 mile of a lek would have been deferred from lease consideration as PPH.
A-13	Wildlife	we recommend that roads should be sited (or traffic should be seasonally limited) within 0.7-0.8 miles from the edge of these areas	Same as responses to Comments A-12 and A-3.
A-14	Wildlife	An adequate regulatory mechanism to address impacts from human-caused noise would be to require that noise levels be limited to 32 dBA at the edge of important sage grouse habitats. In the interest of assisting BLM to compile an adequate 'hard look' at impacts of noise, we have attached these peer-reviewed studies to our comments.	Same as responses to Comments A-12 and A-3.
A-15	Wildlife	The current standard sage grouse stipulations that apply outside Priority Habitats are biologically inadequate, and their effectiveness has not been established by BLM. Indeed, scientific studies demonstrate that these mitigation measures fail to maintain sage grouse populations in the face of full-field development. BLM should not issue these sage grouse parcels unless a rigorous set of stipulations, far stronger than those provided in the EA (such as NSO stipulations), are applied to the parcels or new Timing Limitation Stipulations that extend 3 miles from the lek and restrict production-related activities in addition to drilling and construction, as has been proposed by BLM under the Lander RMP DEIS	With regard to the efficacy of timing limitations, see response to Comment A-1. Alternative 3 defers much of the PGH that would remain subject to timing limitations as authorized in the 1997 White River RMP. The only instance where timing limitations were considered appropriate in this alternative (as corrected) is on parcel 6768. This acreage lies outside mapped sage-grouse habitat and is composed of habitat unsuited for use by sage-grouse (i.e., non-sagebrush vegetation and slopes >35%), but is adjacent to PGH habitat that was considered for deferral in Alternative 3. The nearest and second closest lek locations WRFO is aware of lie 3.6 and 4.5 miles from these parcels.
A-16	Wildlife	Outside Priority Habitats, current sage grouse lease stipulations provide an NSO stipulation of ¼ mile around active sage grouse leks. This is a ridiculously inadequate amount of protection for the lekking grouse during the breeding period, nevermind for hens nesting on lands surrounding the lek. Studies have shown that the majority of hens nest within 3 miles of a lek, and that a 5.3-mile buffer would encompass almost all nesting birds in some cases. For Priority Habitats, the most scientifically supportable metric for NSO buffers would be 2 miles from the lek to protect breeding birds	In practice, WRFO uses 0.6 mile NSO lek buffers as authorized by policy established in BLM Washington Office Instruction Memorandum No. 2012-043. In the context of this lease sale, there are no active or inactive lek locations that are not encompassed by PPH. See also responses to Comments A-3 and A-4.
A-17	Wildlife	It is incumbent upon BLM to consider the most recent scientific evidence regarding the status of this species and to develop mitigation measures which will ensure the species is not moved	Regarding relevant contemporary science, refer to responses to Comments A-1 and A-9. See also response to Comment A-3.

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		toward listing under the Endangered Species Act. It is clear from the scientific evidence that the current protections are inadequate and are contributing to the further decline of the bird's populations. This information constitutes significant new information that requires amendment of the Resource Management Plans before additional oil and gas leasing can move forward.	
A-18	Wildlife	Continued application of stipulations known to be ineffective in the face of strong evidence that they do not work, and continuing to drive the sage-grouse toward ESA listing in violation of BLM Sensitive Species policy, is arbitrary and capricious and an abuse of discretion under the Administrative Procedures Act.	Both Alternatives 2 and Alternative 3 consider the deferral of PPH and additional acreage that represents habitat. Alternative 3 additionally considers deferral of important components of PGH (see response to Comments A-3 and A-4), thus there is no basis to apply stipulations (but see response to Comment A-1).
A-19	Wildlife	BLM should apply the recommendations of the National Technical Team instead, and in the meantime defer leasing until these recommendations can be formally adopted through the plan amendment/revision process. If the BLM and other federal agencies intend to keep the sage-grouse from accelerating beyond other listing priorities, more protective measures, in adherence with the scientific recommendations of Holloran, Braun, and others, must be undertaken now.	Same as response to Comment A-18.
A-20	Wildlife	BLM imposes a Timing Limitation Stipulation and a Controlled Surface Use Stipulation. Such acceptable plans for mitigation of anticipated impacts must be prepared prior to issuing the lease in order to give the public full opportunity to comment, and to abide by the Department of Interior's stated new policy to complete site-specific environmental review at the leasing stage, not the APD stage. Without site-specific review and opportunity for comment, neither the public nor potential lessees can clearly gauge how restrictive or lax "acceptable plans for mitigation" might be, and whether they comply with federal laws, regulations, and agency guidelines and policies. Thus, absent such review, the leases should not issue at all.	This document constitutes a parcel-specific assessment of resources and the reasonably foreseeable potential effects of fluid mineral development on those resources. APD-specific analyses cannot be conducted without explicit development details and this level of development planning cannot be realistically furnished prior to lease issuance. The public has full opportunity to review and comment on those measures considered and employed by BLM and its partners to conserve sage-grouse from the local and population perspectives at the APD authorization stage. Too, leases that are composed of PPH and important components of PGH were variously considered for deferral in Alternatives 2 and 3 (response to Comment A-3).
A-21	Wildlife	Again, it is in all interested parties favor (conservation groups, potential lessees, BLM and other federal agencies) for BLM to determine specific "modifications" prior to issuing leases, such as NSO restrictions. If the BLM fails to do so through site-	Modification and exception criteria are established for each stipulation. These criteria are normally objective- or outcome-based, since the particular circumstances of their application and form are site-specific and unknown at the time of leasing. This formula also allows for integrating innovative or newly-

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		specific environmental review before the APD stage, the agency will violate the "jeopardy" prohibition in the Endangered Species Act and will not adhere to the directive of Secretary Salazar and the Department of Interior's announced leasing reforms.	acquired understandings of mitigation based on contemporary science and BLM policy. See also response to Comment A-20.
A-22	Wildlife	We recommend against the sale of any lease parcels which contain sage-grouse leks, nesting habitat, breeding habitat, wintering habitat and brood-rearing habitat. We request that these parcels be withdrawn from the lease sale. Failing withdrawal of the parcels, parcel-by-parcel NEPA analysis should occur	Refer to response to Comment A-4.
A-23	Wildlife	NSO stipulations must be placed on all lease parcels with sage-grouse leks. In addition, three-mile buffers must be placed around all leks. It is critical that these stipulations be attached at the leasing stage, when BLM has the maximum authority to restrict activities on these crucial habitats for the protection of the species, and that no exceptions to the stipulations be granted. . BLM's failure to do so will permit oil and gas development activities which will contribute to declining sage-grouse populations and ultimately listing by the U.S. Fish and Wildlife Service as a threatened or endangered species, in violation of BLM's duty to take all actions necessary to prevent listing.	Refer to response to Comment A-18.
A-24	Wilderness	Parcels 6755, 6757, 6758, 6759, 6765, 6766, 6769, 6773, 6776, 6777, 6778, 6779, 6813, 6817, 6833, 6836, and 6837 are entirely or partially inside Citizens' Proposed Wilderness lands or Lands with wilderness characteristics identified by BLM. We support the withdrawal or deferral of all Lands with wilderness characteristics (LWCs) and Citizens' Proposed Wilderness (CWP) lands from the lease auction.	Thank you for your comment.
A-25	Wilderness	BLM should consider impacts to lands that possess, some, but not all, wilderness characteristics as well. BLM's failure to consider impacts to wilderness characteristics for parcels that were not found to possess all wilderness characteristics reflects a failure to take a hard look at impacts and disclose them fully for each alternative.	In accordance with BLM policy, the WRFO has not analyzed impacts to wilderness characteristics on lands that do not possess all requisite characteristics. According to BLM Manual 6310, in order for an area to qualify as lands with wilderness characteristics, it must possess sufficient size, naturalness, outstanding opportunities for either solitude or primitive and unconfined recreation. These characteristics when considered individually can be found throughout the majority of the BLM White River Field Office lands. If

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			lands do not possess all requisite characteristics, according to the most current inventory, then they are not considered to be lands with wilderness characteristics at all. The BLM is not directed to analyze impacts to lands that possess some, but not all, wilderness characteristics as part of this particular process.
A-26	Wilderness	Leasing these parcels (lands with some but not all, wilderness characteristics) without No Surface Occupancy (NSO) stipulations could irretrievably destroy the wilderness character of these areas. Therefore, BLM will violate NEPA if these lands are leased in this sale.	The BLM is directed in BLM Manual 6310 and 6320 to inventory potential areas for lands with wilderness characteristics and then evaluate management direction for lands with wilderness characteristics through the land use planning process. Management direction for lands with wilderness characteristics will be presented in the forthcoming Proposed Oil and Gas Development RMP Amendment/FEIS. BLM Manual 6320 states that "Considering lands with wilderness characteristics in the land use planning may result in several outcomes including but not limited to: emphasizing other multiple uses as a priority over protecting wilderness characteristics, emphasizing other multiple uses while applying management restrictions, or the protection of wilderness characteristics as a priority over other multiple uses."
A-27	Recreation Visual	BLM must analyze impacts to visitors' experiences, recreation values, and scenic values.	The decision to lease parcels for oil and gas development has no impact to visitors' experiences, recreation values, and scenic values. However, the potential subsequent exploration, development, and production of oil and gas resources could potentially cause these types of impacts. This analysis is included in both the recreation section and visual resources section of this Environmental Assessment. Oil and gas project proposals will be evaluated during the site specific NEPA process at which time a detailed impact analysis will be completed.
A-28	Range of Alternatives	The regulations implementing NEPA provide that federal agencies shall, to the fullest extent possible, "[u]se the NEPA process to identify and assess the reasonable alternatives to proposed actions that will avoid or minimize adverse effects of these actions upon the quality of the human environment." 40 C.F.R. § 1500.2(e). Such alternatives should include reasonable alternatives to a proposed action that will accomplish the intended purpose, are technically and economically feasible, and yet have a lesser impact.	The BLM has analyzed an appropriate range of alternatives, including leasing all parcels that are in conformance with the RMP, deferring some parcels for specific resource concerns (e.g., 100-yr floodplain and lands with wilderness characteristics), and leasing none of the parcels.
B-1	Wilderness	We strongly object to the proposal in Alternative 3 to defer nearly half the nominated acreage, the vast majority of which is due to Lands with wilderness characteristics . BLM's primary governing statute, the Federal Land Policy and Management	In March of 2012 BLM released BLM Manual 6310 which contains guidance and general procedures for conducting wilderness characteristics inventories under Section 201 of FLPMA. Section 201 of FLMPA requires the BLM to maintain **on a continuing basis** an inventory of all public lands and their

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		Act of 1976 (FLPMA), authorized a wilderness inventory in Sec. 6031 which it envisioned to last 15 years, after which a report on the suitability of certain lands for wilderness designation was to be made to the President. In other words, this process was intended to be finite and not ongoing.	resource and values, which includes wilderness characteristics. BLM Manual 6320 was also released in March 2012 and outlines the procedures for considering lands with wilderness characteristics in the land use planning process. While it is not required to do so, BLM has the discretion to defer parcels from leasing pending completion of a plan revision or amendment process, and Alternative 3 would reflect such an exercise of discretion.
B-2	Wilderness	Sec. 201 of FLPMA does generally authorize an ongoing inventory process of resource values, which BLM construes to include wilderness characteristics, but even if such were the case, that same section very explicitly prohibits that inventory from effecting a change in management, stating, "The preparation and maintenance of such inventory or the identification of such areas shall not, of itself, change or prevent change of the management or use of public land."	The inventory and identification of lands with wilderness characteristics is a separate process than making management decisions. The inventory identifies lands with wilderness characteristics only, but the inventory does not change management or make any management decisions. Management decisions for lands with wilderness characteristics are made separate from the inventory process and during the land use planning process.
B-3	Wilderness	deferring lands open for leasing under the current WRFO RMP does not comply with the explicit direction of Sec. 202 of FLPMA, and Western Energy Alliance urges BLM to refrain from pursuing such a course under Alternative 3 of the EA.	BLM WRFO completed a comprehensive inventory for lands with wilderness characteristics in 2013, as discussed in B-1. The decision of how we manage these lands is being made in the ongoing Oil & Gas Development Resource Management Plan Amendment (RMPA). Because there are no decisions on the management of lands with wilderness characteristics in the current WRFO RMP, and the Oil & Gas RMPA decision has not yet been published and is not able to be implemented, the BLM WRFO has analyzed deferring these lands as Alternative 3 in this EA.
B-4	Wilderness	Page 79 of the EA states that, "…it is highly likely that lands with wilderness characteristics that are leased for oil and gas development will be impacted with a reduction in size and potentially no longer contain wilderness characteristics as a result." However, this statement discounts the fact that the overall footprint of oil and gas infrastructure on a lease is relatively small, and that any impacts must be fully reclaimed after development of the resource. The oil and natural gas industry has been so successful at minimizing impacts and eliminating traces of activity that lands that have prior and even active oil and natural gas wells are regularly proposed for wilderness designation. For example, a wilderness designation bill proposed by a member of Colorado's Congressional delegation includes lands with 57 plugged and abandoned wells, 34 producing wells, and 102,099 acres of land leased for oil and	The quoted statement reflects BLM Manual 6310's size and boundary delineation qualifications. Based on the manual, if any road is mechanically constructed and/or any ROW is developed, this ground disturbance area must be removed from the existing identified lands with wilderness characteristics unit, thus reducing the size of the unit. If the size of the unit is reduced below 5,000 acres, the unit is no longer considered containing wilderness characteristics. If a linear disturbance bisects a unit, and the two separate areas are less than 5,000 acres each, then the entire existing unit is considered no longer containing wilderness characteristics. Typical oil and gas development results in ground disturbing activities, some part of which remains until final reclamation. To clarify the intent of the quoted statement, edits have been made to the text in the EA to disclose the "temporary" nature of oil and gas activities' ground disturbance. Edited text to read, "…it is highly likely that lands with wilderness

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		gas development.	characteristics that are leased for oil and gas development will be temporarily impacted with a reduction in size and potentially no longer contain wilderness characteristics as a result until final reclamation of the entire ground disturbed area has been completed and is successful."
B-5	Wilderness	The deferral of any nominated acreage which is designated as open for leasing under the current WRFO RMP discounts the small and temporary impact of resource development, dismisses the successful reclamation record of the industry, and does not comport with the legal requirements of FLPMA.	To clarify the intent of the quoted statement, edits have been made to the text in the EA to disclose the "temporary" nature of oil and gas activities' ground disturbance. Section 201 of FLMPA requires the BLM to maintain **on a continuing basis** an inventory of all public lands and their resource and values, which includes wilderness characteristics. Edited text to read, "…it is highly likely that lands with wilderness characteristics that are leased for oil and gas development will be temporarily impacted with a reduction in size and potentially no longer contain wilderness characteristics as a result until final reclamation of the entire ground disturbed area has been completed and is successful."
F-1	Fisheries	the BLM should go further to protect Colorado River cutthroat trout (CRCT) by withdrawing the six parcels 6768, 6770, 6771, 6772, 6779, and 6815 from leasing until it completes its Resource Management Plan Amendment (RMPA) or leasing only under a non-waivable ¼-mile NSO stream buffer stipulation.	Note that under Alternative 3, WRFO considered the deferral of lease parcels 6779 and 6815 in their entirety, 61% of lease parcel 6772, and 90% of lease parcel 6768. .Lease parcels 6770 and 6771 would remain available for leasing under Alternatives 2 and 3.___. . WRFO does not consider the application of a "non-waivable" ¼-mile NSO stipulation to further CRCT protection or conservation and its use as a lease stipulation is not supported by the current 1997 White River RMP. As explained in Section 3.4.2.4, the current CSU stipulation has proved to provide an effective basis for formulating measures (applied as site-specific Conditions of Approval) designed to avoid or ameliorate impacts to CRCT habitat and populations in the WRFO. Although a certain degree of redundancy is derived from predetermined "setback" prescriptions, reliance on NSO stipulations for stream protection is not considered a panacea—rather, protection is generally illusory and simply shifts surface disturbing activities to lands more susceptible to instability, chronic sediment production, and accidental infrastructure and equipment failure. WRFO has substantial concern that relying on arbitrary setback distances via application of NSO stipulations is an overly simplistic, unreliable,

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			and not particularly effective form of stream protection for WRFO's CRCT reaches and systems. NSO stipulations applied to the valley floors tend to require lengthy linear ROW (roads and pipelines) realignments and encourages corridors to cross the "grain" of the terrain (use of slopes rather than parallel ridgelines and valleys), both circumstances disturbing more surface prone to erosion and less conducive to effective reclamation. Too, NSO applications on broad, easily accessed and maintained valley situations can complicate or preclude the use of centralized gathering facilities, which offer reduced risk of vehicle mishaps (e.g., fluid transport) associated with the use of steep gradient roads during inclement weather. Under circumstances typical of WRFO CRCT fisheries (e.g., steep adjacent slopes and contributing tributaries), distance provides little effective remediation of effect. Although WRFO can agree that fugitive sediment is a likely consequence of using and constructing roads, pipelines, and pads, those contributions attributable to oil and gas development are minor fractions of the heavy sediment loads carried by these systems during any runoff event. Again, owing to typical watershed topography, applying NSO buffers indiscriminately along stream fisheries can eliminate opportunities to emplace appropriately designed and mitigated development facilities on relatively flat terraces (outside flood prone terraces), which consequently necessitates developing extensive alternate road access across intact and lightly roaded high-elevation shrub-steppe, pinyon-juniper woodlands, and Douglas-fir habitats that not only exacerbate chronic sediment contributions, but impose development-related (e.g., behavioral disturbances) influences more widely across rugged, largely undisturbed upland wildlife habitats.
F-2	General	the BLM should defer all parcels from the June 2014 Lease Sale until the completion of the Oil and Gas Amendment to the WRFO RMP.	The BLM Land Use Planning Handbook (H-1601-1, page 47) specifies that "existing land use plan decisions remain in effect during an amendment or revision until the amendment or revision is completed and approved". The BLM does have the discretion to temporarily defer an action when a different land use is being considered under the preferred alternative in the Draft RMPA, however these decisions must be specific to individual proposals and not an area-wide moratorium. The BLM has carefully evaluated which parcels should be deferred and which parcels should be offered for lease. Leasing these parcels would not foreclose implementation of any of the alternatives being considered in the RMPA process.....
F-3	NEPA	TU is concerned that the EA does not provide a clear direction	In describing the decision to be made (Section 1.3.1), the BLM has been clear

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		to the public as to what the BLM's choices are, based on alternately stating that parcels chosen for sale will be decided on a case by case decision or they will be selected by Alternative	that the decision to lease nominated parcels will be made on a case-by-case basis after careful consideration of the impacts associated with leasing or deferral of individual parcels based on a site-specific resources. The BLM will make a decision that reflects one of, or a combination of, the alternatives analyzed in the EA.
F-4	Cumulative	If BLM's decision is to select parcels for lease on an individual basis it is our contention that the BLM is obligated to perform cumulative impact analysis on individual parcels basis and without this type of analysis our assertion is that the impact analysis contained within the EA does not warrant a Finding of No Significant Impact (FONSI).	The BLM has considered the cumulative impacts of leasing all the nominated parcels and as well as the impacts associated with not leasing the parcels (No Action Alternative). Given this analysis, BLM is not required to separately analyze the impacts of leasing different combinations of parcels. *Biodiversity Conservation Alliance*, 183 IBLA 97, 125 (2013). By making a decision on a parcel by parcel basis, the BLM is taking a hard look at the impacts associated with each parcel and making an informed decision on whether or not to lease those parcels (or portions of parcels). Some parcels are analyzed for deferral because the BLM felt those resource concerns warranted a more in-depth analysis. The cumulative effects analysis is valid and adequate.
F-5	Pre-decisional	We are disappointed to find that parcels are being offered in the White River Planning Area this close to the end of the RMPA planning process. We feel that offering the parcels will short-circuit the planning process, and that our comments relating to the lands and resources for which leasing creates an irretrievable commitment of resources are not being considered.	Please see response to comment F-2.
F-6	Fisheries	Apply an NSO stipulation or condition on leases for ¼-mile from the center of streams occupied by Colorado River cutthroat trout (CRCT).	Same as response to comment F-1.
F-7	Riparian/ Waters Fisheries	Apply NSO-01 and NSO-09 stipulations, contained in Alternative 2 (requiring a 500-foot setback from all perennial waters, springs, wells, and wetland/riparian areas), to all leases in the WRFO.	These NSO stipulations are alternative measures presently being evaluated through the White River Oil and Gas RMP Amendment and are not available for use in this lease sale. The intent of these more formalized provisions is captured by current BLM sensitive species and riparian management policies (including CSU-06) and existing management decisions in the 1997 White River RMP ROD, thus: *Page 2-36. BLM authorized land uses that adversely affect long term riparian, channel, or aquatic conditions associated with Colorado River cutthroat trout fisheries will be prohibited.* *Page 2-14 and 2-15. All potentially impacting land use activities will be required to avoid priority riparian habitats, unless it is determined through an*

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			environmental analysis that: (a) the activity will not degrade or forestall attainment of the proper functioning condition of the riparian area; (b) impacts could be mitigated in a manner that will meet minimum objectives for the system if the riparian areas could not be avoided. Furthermore, the current suite of State (i.e., COGCC and CDPHE) and federal regulatory processes regulating off-site sediment and contaminant delivery, in concert with those measures addressed above, apply to all federally administered fluid mineral actions and would remain effective in preventing oil and gas development from impairing channel features or floodplain processes and would reduce to discountable levels the likelihood that development and operation of oil and gas facilities would contribute sediment or chemical contaminants acutely or chronically deleterious to aquatic animal communities.
F-8	ACEC Fisheries	Apply an NSO stipulation on all new leases in the East Douglas Creek ACEC.	It is not considered necessary to preclude oil and gas development activity across 47,610 acres of the East Douglas watershed in order to manage about 12 miles of occupied CRCT habitat and another 9 miles of aquatic habitat with foreseeable opportunity for CRCT expansion. Applying a broadly restrictive stipulation to the ACEC would contradict its intended purpose and objective. WRFO independently designated this ACEC through the 1997 White River RMP to highlight that portion of the East Douglas Creek watershed that encompasses the majority of the WRFO's CRCT habitat. ACEC designation was never intended to elevate the protection of CRCT to the point of precluding other appropriate forms of land use, rather it was to provide a means to "coordinate all land uses in a manner compatible with or complementary to stream habitat recovery." Imposing expansive NSO provisions on oil and gas development in the absence of a resource conflict warranting such measures is unsupported by the 1997 RMP. Riparian and aquatic habitat management provisions expressed in the 1997 RMP, strengthened by current BLM riparian, sensitive species, and State and federal fluid mineral management policies and regulations would be expected to remain effective in reducing direct involvement to minor and temporary events and reducing indirect influences on riparian vegetation, channel function, and water quality to levels indiscernible from system baselines. WRFO is aware of no information or imagery that suggests that any federally-administered oil and gas-related infrastructure contributes sediment at levels that has prompted channel instability or that contributes to discernible degradation of water quality within those systems supporting a fisheries. The distribution of cutthroat trout and habitat conditions

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			associated with leases adjacent and nearby to those under consideration have been retained through at least 40 years of coincident oil and gas development that was conducted with lower development and regulatory standards than those presently employed.
F-9	Fisheries	Modify the language of Controlled Surface Use stipulations (CSU-11, 12, 13) to make them mandatory requirements for developers. These stipulations should not allow exemptions, waivers or modifications. Developers should be required to demonstrate no harm to CRCT habitat when developing within a CRCT watershed.	The CSU stipulations referred to (minor upgrades to current CSU-06) are alternative measures presently being evaluated through the White River Oil and Gas Development RMP Amendment and are not available for use in this lease sale. Modifying the intent and removing the exception, modification, and waiver language from the existing CSU stipulation would contradict the 1997 RMP and there is no evidence suggesting that removing these measures is necessary to maintain, conserve, and allow expansion of CRCT populations in affected watersheds. See also the response to comment F-19.
F-10	RMP outdated	…the BLM is violating the National Environmental Policy Act (NEPA) because it is basing its leasing decision on information and assumptions that have changed dramatically over the past 16 years and which should not be relied on in making sound land management decisions.	While there is no set expiration date for the BLM's resource management plans (RMPs), they are typically implemented for 20+ years before being revised. Decisions in the 1997 White River RMP regarding which areas should be open or closed to leasing remain valid. This EA considers new information and circumstances that have changed since the EIS for the 1997 RMP was completed.
F-11	RMP outdated	... we recommend that the BLM defer all parcels in the June 2014 Lease Sale until after the revised Amendment is completed and a Record of Decision (ROD) is issued.	Please see response to comment F-2.
F-12	Climate Change	The 1997 RMP does not address substantial new relevant information regarding oil and gas impacts to surface water, groundwater, air quality, climate change, and fish and wildlife resources.	The decisions in the 1997 White River RMP regarding which areas should be open or closed to leasing remain valid. This lease sale EA has analyzed, in detail, the foreseeable potential impacts associated with oil and gas leasing (and potential subsequent development) on a variety of resources and resource uses, using current information.
F-13	Water/ hazmat	Increased water pollution issues caused by spills and secondary oil and gas activities	Please see response to comment F-27. A section was added to the surface water quality section to address potential spills.
F-14	Fisheries	Increased fish kills from contamination events due to the increase of oil and gas drilling near water	WRFO acknowledges that inadvertent contamination from oil and gas infrastructure can impair the health of aquatic systems supporting fisheries, but refers the commenter to Section 3.4.2.4 of the EA that relates that the likelihood of such an event remains as low as practicable considering the current suite of State and federal regulatory processes regulating the potential for off-site sediment and contaminant delivery.
F-15	Wildlife	Sage grouse are now considered a species of significant value with the US Fish and Wildlife Service identifying them as	The current status of the greater sage-grouse was acknowledged in Section 3.4.2.4 of the EA.

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		warranted for listing and requiring state level management plans	
F-16	Wildlife	New research shows that oil and gas activities significantly impacts big game habitat and the species population	Pertinent aspects of contemporary big game research (i.e., behavioral avoidance) were acknowledged and used in impact assessment in Section 3.4.2.9 of the EA.
F-17	Air	Air emission issues that threaten Colorado's air quality.	Section 3.4.1.1 describes potential impact to air quality and includes estimated emission inventories.
F-18	RMP adequacy	The BLM EA Does Not include Consistent Conformance with the BLM's Instruction Memorandum 2010-117 for Consideration of New Information… TU has serious concerns with the lack of reference or implementation to the 2010-117 IM in the June 2014 EA.	The process for public involvement and review of the nominated parcels for the June 2014 lease sale is consistent with BLM policy outlined in the leasing reform IM-2010-117.
F-19	Fisheries Riparian	The WRFO 1997 RMP currently imposes stipulation (CSU-06) for CRCT occupied streams. TU believes this stipulation on the parcels does not provide effective protection of CRCT occupied and expansion habitat, water quality protection and is an extremely narrow measure of protection for streams and/or other water bodies. Additionally, the *WRFO RMP is deficient in that no stipulations are available to apply to the proposed lease parcels* to protect waters that are not occupied by CRCT or riparian areas in general.	With regard to the efficacy of this stipulation, WRFO believes that the currently-authorized CSU provides a substantial level of management flexibility in applying COAs designed to effectively prevent and avoid impacts that can be envisioned prior to authorization or correcting unanticipated impacts that may occur after authorization. WRFO does not consider simple reliance on arbitrarily assigned lateral separation from an occupied stream a particularly effective form of stream protection (see response to comment F-1). The CSU stipulation requires that the proposed action be conditioned so as to not compromise important constituents of aquatic habitat. Depending on WRFO determination of risk (documented through NEPA analysis), the operator may be required to monitor for inputs or changes in specific parameters and would be required to remedy adverse shifts or changes in aquatic habitat conditions attributable to the authorized action. These objectives apply to occupied habitats as well as contributing perennial and intermittent tributaries and apply explicitly to the following parameters: stream gradient, sediment accumulation, channel sinuosity, channel width:depth ratios, water temperature, vegetation-derived stream shading (invertebrate source, water temperature), and water quality. Although this CSU stipulation (CSU) does not operate in a manner that mandates action on the part of the operator, it identifies important constituent elements of aquatic habitat that are considered by BLM during on-site inspections and NEPA analysis and provides the basis for BLM to formulate and apply Conditions of Approval that, when warranted, address and remedy anticipated risks or unanticipated consequences of development that takes place in these watersheds. Explicit in the CSU are data collection and monitoring responsibilities that can be imposed on an operator whose development proposal

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			poses a reasonable degree of risk to an occupied system. The CSU is thus far broader and inclusive in scope and application than a simple exclusionary device (i.e., NSO stipulation) that is expected to independently eliminate risk to a system. This CSU has been applied to every lease offered in the ACEC since it was developed and authorized through the 1997 RMP. However, since 1997 only two wells have been drilled in the ACEC, one in 2001 (now abandoned) and the other in 2007 (producing). The leases on which the wells were drilled had been issued and held in production since 1966 and 1968, respectively (i.e., no mechanism to apply newly developed lease stipulations). Further, and based on inspection of recent NAIP imagery, there is no indication that any federally-administered oil and gas development feature is contributing to degradation (e.g., chronic and excessive sediment contributions) of occupied or contributing channels or subtending aquatic habitats in these systems. Management decisions authorized through the 1997 RMP (see response to comment F-7) as well as BLM policy and priority regarding riparian and BLM-sensitive species management, including the option of moving surface use proposals 200 meters where proximity would pose reasonable risk to riparian or aquatic resources, provide an effective complementary framework for developing COAs that have consistently and effectively maintained riparian and aquatic resources subject to direct and indirect effects attributable to fluid mineral development. Although there is potential for oil and gas development to contribute to overall sediment loading in these aquatic systems, there is no reasonable likelihood that siting adjustments, State and federally-imposed sedimentation and storm-control measures, and WRFO reclamation and mitigation 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.
F-20	RMP Stip consistency	The BLM referenced a CSC (or Committee for Stipulation Consistency) in 2010 yet no reference to this CSC review is presented in the EA. This is of high concern to TU since the SIS specifically requires that edge-matching stipulations along field office boundaries be ensured and supported. Further, the SIS states that any stipulations that are inconsistent between field office boundaries will be flagged for corrective action.	The BLM Colorado State Office has been working on developing a set of standard lease stipulations; however the task has not yet been completed. Any substantial proposed changes to lease stipulations would be made available for public review and comment.
F-21	Fisheries	The BLM has not fulfilled its management obligations with respect to CRCT by failing to sufficiently consider impacts to habitat in the EA. Parcels 6768, 6770, 6771, 6772, and 6779 are	Note that under Alternative 3, WRFO considered the deferral of lease parcels 6779 and 6815 in their entirety, 61% of lease parcel 6772, and 90% of lease parcel 6768. Concerning the intended purpose and management applied to the

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		within the East Douglas Area of Critical Environmental Concern (ACEC), an area designated to receive special protections for CRCT. Parcel 6815 contains a CRCT conservation population. As a signatory to the newly updated 2011 CRCT Conservation Strategy and Rangewide Assessment, the BLM is obligated to manage, protect, and enhance CRCT populations and habitat. It is our belief that applying stipulation CSU-06 to the parcels does not provide adequate protection for CRCT.	East Douglas ACEC, see response to comment F-8. See also text added in the Affected Environment addressing the status of CRCT populations encompassed by the East Douglas Creek ACEC. WRFO has and will continue to manage CRCT and other aquatic habitats consistent with BLM's role in the CRCT Conservation Agreement and Strategy (2006), but is only capable of engaging in strategies that fit our mission and .authority. Specifically, BLM does not manage fee lands or control water use or appropriation under State water law. WRFO has fully considered and evaluated its management responsibility with regard to native cutthroat trout and other special status native fishes and is appropriately engaged in meeting its commitments under that interagency agreement, Contrary to the commenter's opinion, WRFO believes that current policy, regulatory, and lease stipulation language (see response to comments F-7 and F-19) are adequate to effectively manage and conserve these resources and that deferral of the additional parcels would not have the intended benefit of fundamentally elevating protection, enhancing management opportunity or authority, or better meeting our responsibilities through FLPMA or cooperative management plans such as the CRCT Conservation Agreement and Strategy.
F-22	Fisheries	CSU-06 should be only be implemented if it includes a ¼-mile NSO buffer from the center line of CRCT occupied habitat and expansion habitat.	WRFO believes that application of the CSU-06 stipulation in concert with other RMP-authorized decisions and in the context of current BLM policy and regulation establishes an effective basis for protecting and conserving aquatic resources that support CRCT. WRFO does not agree that the efficacy of this CSU stipulation is solely predicated on its being appended with an inviolate NSO stipulation. See response to comments F-1, F-19, and F-24.
F-23	Fisheries ACEC	the EA should include additional analysis. Specifically, the EA should analyze 1) the potential impacts of the proposed action on occupied or expansion habitat, 2) specific BMPs, stipulations, COA's, and other mitigation measures that will be applied to mitigate impacts to expansion habitat, and 3) cumulative impacts of oil and gas development in the East Douglas ACEC on CRCT habitat and expansion habitat and its effect on the BLM's continued ability to manage the ACEC to protect such habitat.	The potential impacts of lease development on aquatic habitats are presented in Section 3.4.2.4 of the EA. Project-specific measures to avoid or reduce effects on aquatic systems are analyzed in project-specific EAs since BLM does not have sufficiently detailed development information to fully analyze such measures at the time of leasing. The CSU provision that would be applied to developments that have potential to influence aquatic habitats establishes those parameters central to the support of aquatic communities (see response to comment F-19) and are the basis for formulating measures designed to avoid or reduce adverse influences on aquatic habitats that are contributory, occupied, or those that have reasonable potential to be occupied (see response to F-24) by CRCT. Text was added in the cumulative impacts section that more explicitly extends to CRCT-associated habitats potentially influenced by lease development. Leasing of those parcels within the East Douglas ACEC would have no influence on WRFO's continued ability to effectively manage those

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			resources for which the ACEC was established. All authorized land uses, including ongoing oil and gas development, were clearly envisioned and anticipated to continue without interruption in the 1997 RMP (pages 2-36 and 2-37 of 1997 White River ROD).
F-24	Fisheries	All non-occupied CRCT waters should be evaluated to determine if a ¼-mile buffer is adequate to protect water quality and quantity, and associated fisheries.	Application of a NSO stipulation, regardless of dimension, would have no effect on flow volumes, which arguably impose the most severe practical limitation on fisheries suitability in the East Douglas system during base flow periods. The water quality arguments pertinent to imposition of a ¼-mile NSO buffer on streams occupied by CRCT in the East Douglas Creek ACEC (see response to comment F-19) apply equally to "non-occupied" reaches, since the CSU provision extends to the entire contributing watershed (i.e., all upstream tributaries) and those downstream reaches where occupation may potentially extend in the foreseeable future, but are now constrained due to such factors as insufficient flow, elevated water temperature, or improper (i.e., early seral) channel structure. The issue of fish recolonizing historical habitat is not as relevant in other CRCT fisheries in the WRFO, since contributing or subtending reaches are predominantly privately-controlled or beyond the jurisdictional limits of WRFO.
F-25	Water Quality	baseline water monitoring and sampling discussion were also not included in the EA, particularly as they apply to each nominated parcel. We strongly recommend that the BLM attach stipulations to the lease parcels that include baseline water testing prior to any drilling, to conduct monthly sampling during drilling, and finally to sample after drilling has been completed.	Groundwater and surface water quality impacts are described in Sections 3.4.1.7 and 3.4.1.8. Baseline water quality sampling is not required by the BLM prior to drilling or leasing. BLM assumes the operator will comply with COGCC sampling requirements before drilling and will evaluate compliance with these requirements during permitting and operation. Ongoing water resource monitoring by the BLM and supported by the BLM through the USGS add to the understanding of baseline water quality conditions, but is not specific or relevant to these lease parcels.
F-26	Water Quality	the new Colorado Oil and Gas Conservation Commission Water Sampling ruling requirement (January 2012) must be included.	
F-27	Water Quality – spill prevention	Significant spills have occurred in Colorado and its waterways each year and there is little discussion as to how the BLM will implement stronger design measures to avoid the consistent issues of water contamination and surface impacts experienced each year.	The impact of unintentional spills to groundwater is described in Sections 3.4.1.7 and 3.4.1.8. Design measures and mitigation efforts or BMPs are discussed in Section 3.4.1.8. Proposed design measures and mitigation are evaluated in detail at the APD stage when exploration and production plans are submitted for BLM approval. Best Management Practices (BMPs) and design measures typically include secondary containment and stormwater systems designed in part to contain spills and avoid impacting surface waters. BLM inspection of production equipment and wells along with the review of design measures would occur as required by the onshore orders for oil and gas and should reduce the potential for spills.
F-28	Water Quality	the discussion for both surface water and ground water fails to discuss any type(s) of mitigation efforts other than that found on page 35: "The WRFO ensures the submitted APD would contain a casing and cementing program adequate to protect all of the resources,	

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		minerals, and fresh water zones, 43 CFR §3162.5-2(d)."	
F-29	Water Quantity	how the extraction of large amounts of water required to drill and fracture a well will affect river ecology, adjacent users, and municipalities	Impacts of water use for drilling and hydraulic fracturing activities are reviewed during the APD stage. Operators are required to submit an estimate of freshwater use and documentation of the location and authority to use freshwater. Potential impacts from water use are discussed with regard to special status animals in Section 3.4.2.4.
F-30	Water Quality	In addition to the obvious degradation issues from surface disturbances, other water impact activities include non-point source pollution, point source pollution, and hydraulic fracturing cannot be ignored. Yet, the EA fails to adequately include any discussion of the impacts of these activities, particularly the water use impacts of hydraulic fracturing.	Potential impacts to Groundwater Quality from hydraulic fracturing are discussed in Section 3.4.1.7 and no oil and gas development activities are ignored. Freshwater use is tracked during permitting. Drilling and hydraulic fracturing freshwater use has been within the average 2.62 acft/well used to estimate water lost to the Colorado River system. See Section 3.4.2.4. A common practice is to use produced water for hydraulic fracturing after surface casing and cementing is in place to protect freshwater aquifers. This reuse or recycling of produced water reduces the use of freshwater.
F-31	Public Health & Safety	BLM must include analysis that considers the potential effects on public health and safety from hydraulic fracturing operations, including air quality, oil spills, water contamination, and water shortages.	The reasonably foreseeable impacts on these resources from potential lease exploration and development are described in Section 3.4. Operators must comply with state law, including water and air quality protection requirements and standards set by the CDPHE in part to protect public health and safety.
F-32	Cumulative	Cumulative analysis must be done on the leasing of individual parcels and not on any of the Alternatives as the EA clearly states in Section 1.3.1 that the BLM will make lease sale decisions on a parcel by parcel basis.	Please see response to comment F-4.