United States Department of the Interior Bureau of Land Management

Determination of NEPA Adequacy DOI-BLM-CO-S010-2015-0020-DNA

August 2015

Tres Rios February 2016 Oil and Gas Lease Sale

Location: Ten parcels for 9512.33 acres in Dolores and Montezuma Counties

BLM, Colorado State Office 2850 Youngfield Street

Lakewood, Colorado 80215-7093

Tres Rios Field Office 29211 Highway 184 Dolores, CO 81323 Phone: (970) 882-7296

FAX: (970) 882-6481



Worksheet

Determination of NEPA Adequacy

U.S. Department of the Interior Colorado Bureau of Land Management

OFFICE: Tres Rios Field Office

TRACKING NUMBER: DOI-BLM-CO-S010-2015-0020-DNA

<u>CASEFILE/PROJECT NUMBER</u>: Parcels 6715, 7367, 7368, 7369, 7370, 7371, 7372, 7373, 7379 and 7390

PROPOSED ACTION TITLE/TYPE: Tres Rios 2016 Oil and Gas Lease Sale

LOCATION/LEGAL DESCRIPTION: See Attachments B and C for full legal descriptions

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 sales to lease available oil and gas parcels. A Notice of Competitive Lease Sale (Sale Notice), which lists parcels to be offered at the lease sale 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 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 30 day public scoping period. This posting also includes the appropriate stipulations as identified in the relevant Resource Management Plan (RMP). The BLM prepares documentation consistent with the National

Environmental Policy Act (NEPA). Comments received from the public are reviewed and considered 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. Lease Sale Notices are posted on the Colorado BLM website

at: http://www.blm.gov/co/st/en/BLM_Programs/oilandgas/oil_and_gas_lease.html. On rare occasions, the BLM may defer or withhold offering proposed parcels for lease up to the day prior to of the lease sale. In such cases, the BLM prepares an addendum to the Sale Notice.

If the parcels are not leased at the Tres Rios February 2016 lease sale, they will be available for noncompetitive leasing pursuant to 43 CFR Subpart 3110 for a period of up to two years following the lease sale. 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 (COAs) should apply.

Ten parcels comprising approximately 9512.33 acres of Federal mineral estate within the Bureau of Land Management (BLM) Tres Rios Field Office (TRFO) were nominated for leasing in the Tres Rios February 2016 Oil and Gas Lease Sale. Maps of the parcels are in Attachment A, and legal descriptions of the 10 proposed parcels are in Attachment B.

This DNA documents the review of the nominated parcels under the administration of the TRFO. 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 Colorado Instruction Memorandum (IM) No. 2012-027 and BLM Washington Office IM No. 2010-117, this DNA will be released for 30 days of public comment. Any comments received within the 30-day timeframe will be considered and incorporated into the DNA as appropriate.

A. Description of the Proposed Action and Any Applicable Mitigation Measures

Of the ten nominated parcels, TRFO proposes to offer six parcels, totaling 5632.33 acres for lease at the Tres Rios February 2016 Oil and Gas Lease Sale, and to defer four parcels totaling 3880 acres from the sale. Maps depicting all of the nominated parcels are in Attachment A, and legal descriptions of the parcels are in Attachment B. Legal descriptions and stipulations for the six

parcels recommended for lease are in attachment C, and full stipulation descriptions are in attachment D. The stipulations are identified in the 2015 Tres Rios Field Office Record of Decision/Resource Management Plan (TRFO ROD/RMP).

The BLM administers the mineral estate of the six parcels recommended for lease, while the BLM, State of Colorado, and private landowners manage the surface estate. These parcels would be offered at public auction for lease for oil and gas exploration and development.

Justification for deferral: The deferral process for nominated parcels was established to address situations in which legitimate questions arise as to the reasonably foreseeable impacts from leasing of a parcel. The deferral of a parcel does not permanently withdraw the parcel from leasing, but merely indicates that further consideration is needed before a decision is a made regarding whether to offer the parcel at a future lease sale. The four parcels totaling 3880 acres in and around Lone Mesa State Park are recommended for deferral in order to allow for additional review of appropriate protections for State Park land from oil and gas development.

B. Land Use Plan (LUP) Conformance

Plan: Tres Rios Field Office Resource Management Plan (TRFO RMP)

Date Approved: February 2015

X The proposed action is in conformance with the applicable LUPs because it is specifically provided for in the following LUP decisions:

Decision Language: This program emphasizes the orderly and environmentally responsible development of oil and gas (natural gas and CO2) deposits (page II-111).

The TRFO ROD/RMP identifies areas open for oil and gas leasing (pages II-113 through II-121), and specifies stipulations that would apply to leases (Appendix H). The proposed lease parcels are within the areas identified as open to leasing. Based on the RMP, specific stipulations are attached to each lease parcel.

C. Identify the applicable National Environmental Policy Act (NEPA) documents and other related documents that cover the proposed action.

BLM Tres Rios Field Office, San Juan National Forest Land and Resource Management Plan Final Environmental Impact Statement (RMP FEIS) (September 2013).

D. NEPA Adequacy Criteria

1. Is the new proposed action a feature of, or essentially similar to, an alternative analyzed in the existing NEPA document(s)? Is the project within the same analysis area, or if the project location is different, are the geographic and resource conditions sufficiently similar to those analyzed in the existing NEPA document(s)? If there are differences, can you explain why they are not substantial?

Yes. The proposed action is included in an alternative analyzed in the TRFO RMP FEIS (Sept, 2013). The proposed lease parcels are within the area analyzed by the RMP FEIS, and leasing and subsequent development of oil and gas resources are specifically analyzed throughout the RMP FEIS (Sept, 2013), see chapters 3 and 4. Section 3.19 of the RMP FEIS describes the acres of currently leased and unleased federal minerals, under BLM, Forest Service, and split-estate surface ownership. The RMP FEIS describes leasing and types of stipulations which could be applied as resource mitigation, and that stipulations, Conditions of Approval and other existing law can mitigate resource concerns during development. The RMP FEIS also describes average acres of disturbance for development of well pads, roads, pipelines, and other facilities. Other resource sections describe the type and qualitative impact of development on that resource in the FEIS. All lands considered in this action are open to leasing under the RMP FEIS, and stipulations have been attached in conformance with the RMP.

2. Is the range of alternatives analyzed in the existing NEPA document(s) appropriate with respect to the new proposed action (or existing proposed action), given current environmental concerns, interests, and resource values?

Yes. Five alternatives, covering a full range of oil and gas leasing options, were addressed in the RMP FEIS (see Section 2.4.6 of that document). The alternatives ranged from the most restrictive, a No Leasing Alternative, to the least restrictive, which made 78% of lands Available for Lease and had No Surface Occupancy stipulation on only 38% of those lands. Other Alternatives were considered but eliminated from full analysis in the RMP FEIS due to being contrary to law or valid existing rights, or similar to analyzed alternatives. These alternatives are considered to be adequate and valid for the proposed action.

3. Is existing analysis adequate in light of any new information or circumstances (such as, rangeland health standards assessment; recent endangered species listings, updated list of BLM sensitive species)? Can you reasonably conclude that new information and new circumstances would not substantially change the analysis of the new proposed action?

Yes, the existing RMP FEIS is valid. We are not aware of any new information or circumstances that would require modification of the analysis.

4. Are the direct, indirect, and cumulative effects that would result from implementation of the new proposed action similar (both quantitatively and qualitatively) to those analyzed in the existing NEPA document?

Yes. The impacts of oil and gas developments, as well as other resource management actions, were addressed in the RMP FEIS based on a reasonable foreseeable development (RFD) scenario of approximately 2900 new wells in the next 15 years. Since the RMP was signed, only two new wells have been approved. This totals one new well every two months, which is only 3% of the RFD's predicted monthly average. Thus, the impacts to date from oil and gas development are much lower than and therefore consistent with what was analyzed in the RMP FEIS.

5. Are the public involvement and interagency review associated with existing NEPA document(s) adequate for the current proposed action?

Yes. Full public review occurred during the RMP FEIS process. The current proposed lease sale would fall under the RMP FEIS. In addition, on May 11, 2015 a courtesy notice was posted on the BLM web

site, http://www.blm.gov/co/st/en/BLM_Programs/oilandgas/oil_and_gas_lease/20160/february_2016.html. Surface owners of proposed parcels were mailed nominated parcels and maps, and a public scoping period was held from May 11 to June 10, 2015. A site visit was held with Colorado Parks and Wildlife on June 12, 2015.

In addition, a notice of the competitive lease sale is posted approximately ninety (90) days prior to the sale on the BLM web site, ww.co.blm.gov/oilandgas/leasinfo.html.

E. Persons/Agencies/BLM Staff Consulted:

<u>Name</u>	<u>Title</u>	Resource Represented	
Tracy Perfors	Natural Resource Specialist	Project Manager	
Chad Meister	Natural Resource Specialist	Air	
Julie Bell	Archaeologist	Cultural; Native American	
	-	Religious Concerns	
Brad Pietruszka	Fire Management Specialist	Fuels, Fire	
		Wildlife; Migratory Birds; Special	
		Status Animal Species;	
Nathaniel West	Wildlife Biologist	Threatened, Endangered or	
		Candidate Animal Species;	
		Wetlands; Water Resources	
	Botanist	Invasive Species/Noxious Weeds;	
		Rangeland; Special Status Plant	
Mike Jensen		Species; Threatened, Endangered	
		or Candidate Plant Species;	
		Vegetation	
Martin Hensley	Economist	Environmental Justice; Socio-	
Wiaitin Hensiey	Economist	Economics	
Harrison Griffin	Realty Specialist	Lands/Access	
		Lands with Wilderness	
		Characteristics; Recreation;	
Jeff Christenson	Outdoor Recreation Planner	Visual; Wild and Scenic Rivers;	
		Wilderness/Wilderness Study	
		Areas	
John Pecor	Petroleum Engineer	Mineral Resources; Waste	
Jamie Blair	Paleontology Coordinator	Paleontology	

In addition, the list of preparers, cooperating agencies, and tribes participating in the original RMP FEIS is available in the FEIS, Chapter 4.

Remarks:

Cultural Resources:

While the lease sale of parcels would not directly affect cultural resources, activities related to lease exploration and development would have the potential to adversely impact properties that are protected under the NHPA. Potential impacts to sites would be analyzed under future NEPA upon the receipt of an APD or Sundry Notice.

A total of six cultural resource inventories were conducted in eight of the nominated lease parcels, while parcels 6715 and 7372 have had no prior surveys. Of the total 9,313.6 acres nominated for the lease sale, approximately 1,462 acres (15%) have been surveyed, resulting in 49 archaeological sites recorded. Of the 49 sites recorded, 14 are not eligible for listing on the NRHP, while 12 sites are evaluated as needing more data, but must be protected as if they are eligible for listing.

Complete Class III cultural resource inventories would need to be conducted prior to any development of these lease parcels. In addition, Stipulation CO-39 (included in Appendix H) alerts lessees of the possibility that historic or cultural properties and/or resources may be present on the leasehold, and explains BLM's policy under the National Historic Preservation Act, American Indian Religious Freedom Act, and Native American Graves Protection and Repatriation Act, E.O.13007 to protect them.

Native American Religious Concerns:

Tribal consultation was initiated on the Proposed Action. Additional tribal consultation would occur for site specific consultation prior to the issuance of any permit action.

<u>CONCLUSION</u> (If you found that one or more of these criteria is not met, then you cannot conclude that the NEPA documentation fully covers the proposed action).

Plan Conformance:

X	This proposal conforms to the applicable land use p	plan.			
	☐ This proposal does not conform to the applicable land use plan				
Deter	mination of NEPA Adequacy				
X	Based on the review documented above, I conclude applicable land use plan and that the NEPA documented action and constitutes BLM's compliance with the	entation fully covers the proposed			
	The existing NEPA documentation does not fully c NEPA documentation is needed if the project is to	1 1			
Signa	ture of Project Lead	Date			
Signa	ture of NEPA Coordinator	Date			

	_
Signature of the Responsible Official	Date

Note: The signed <u>Conclusion</u> on this Worksheet is part of an interim step in the BLM's internal decision process and does not constitute an appealable decision. However, the lease, permit, or other authorization based on this DNA is subject to protest or appeal under 43 CFR Part 4 and the program-specific regulations.

ATTACHMENTS:

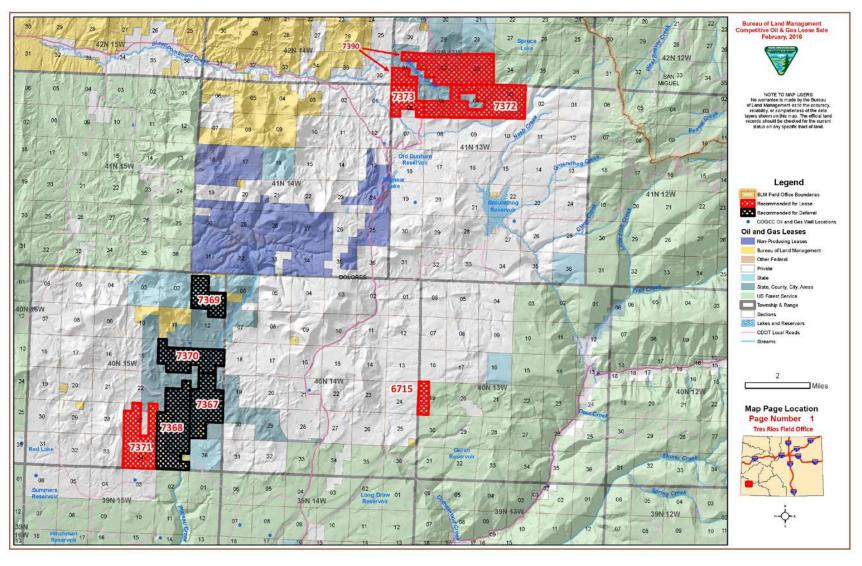
Attachment A: Maps

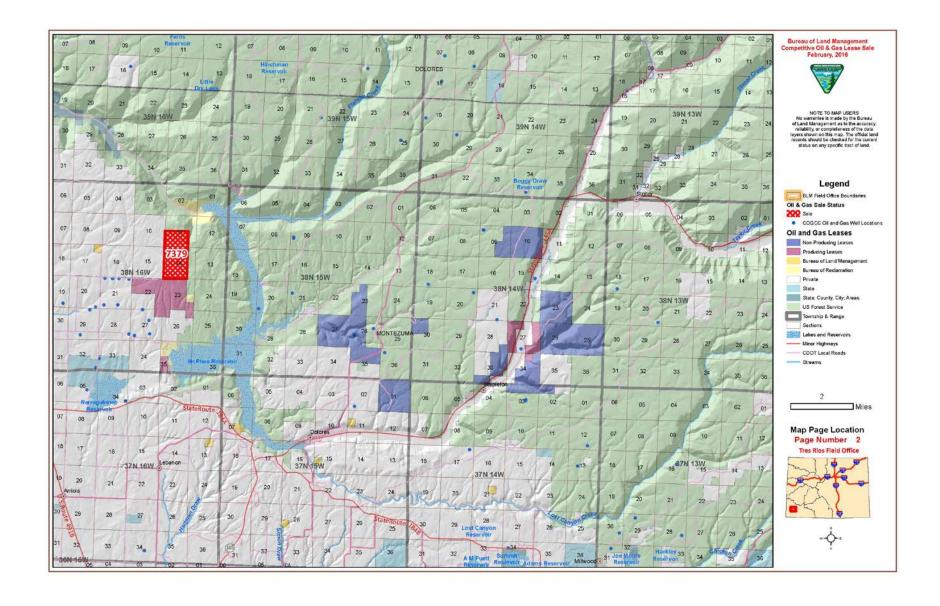
Attachment B: Legal Descriptions of Proposed Parcels

Attachment C: Parcels Recommended for Lease with Applied Stipulations

Attachment D: Stipulation Descriptions

ATTACHMENT A: Maps





Attachment B: Legal Descriptions of Proposed Parcels

THE FOLLOWING PUBLIC DOMAIN LANDS ARE SUBJECT TO FILINGS IN THE MANNER SPECIFIED IN THE APPLICABLE PORTIONS OF THE REGULATIONS IN 43 CFR, SUBPART 3120.

PARCEL ID: 6715 (Recommended for lease)

T.0400N., R.0130W., NMPM

Section 19: Lot 1,2; Section 19: E2W2;

Dolores County

Colorado 196.440 Acres

PVT/BLM; COS:TRFO

PARCEL ID: 7367 (Recommended for deferral)

T.0400N., R.0150W., NMPM

Section 24: W2NE,E2NW,S2;

Section 25: N2,SW;

Dolores County

Colorado 960.000 Acres

PVT/BLM; COS:TRFO

PARCEL ID: 7368 (Recommended for deferral)

T.0400N., R.0150W., NMPM

Section 23: SENE, E2SW, SE;

Section 26: E2,E2NW,SWNW,SW;

Section 35: N2,SW,W2SE,SESE;

Dolores County

Colorado 1480.000 Acres

PARCEL ID: 7369 (Recommended for deferral)

T.0400N., R.0150W., NMPM

Section 1: Lot 5,6,11,12;

Section 1: S2; Section 12: N2NE;

Dolores County

Colorado 560.000 Acres

PVT/BLM; COS:TRFO

PARCEL ID: 7370 (Recommended for deferral)

T.0400N., R.0150W., NMPM

Section 13: S2N2,N2S2,SESW,SWSE;

Section 14: N2SW,SESW,SE; Section 14: S2N2,NWNW;

Dolores County

Colorado 880.000 Acres

PVT/BLM; COS:TRFO

PARCEL ID: 7371 (Recommended for lease)

T.0400N., R.0150W., NMPM

Section 27: E2E2,E2W2,SWNW,W2SW;

Section 34: ALL;

Dolores County

Colorado 1080.000 Acres

PARCEL ID: 7372 (Recommended for lease)

T.0410N., R.0130W., NMPM

Section 3: Lot 1-4;

Section 3: S2N2,S2;

Section 4: Lot 1-4;

Section 4: S2NE,NWSW,NESE,S2S2;

Section 5: Lot 1;

Section 5: SENE,S2;

Dolores County

Colorado 1519.900 Acres

PVT/BLM; COS:TRFO

PARCEL ID: 7373 (Recommended for lease)

T.0410N., R.0130W., NMPM

Section 6: Lot 2-7;

Section 6: SWNE, SENW;

Section 6: NESW, N2SE, SESE;

Dolores County

Colorado 503.640 Acres

PVT/BLM; COS:TRFO

PARCEL ID: 7379 (Recommended for lease)

T.0380N., R.0160W., NMPM

Section 11: SW,W2SE;

Section 14: W2E2,W2;

Montezuma County

Colorado 720.000 Acres

PARCEL ID: 7390 (Recommended for lease)

T.0420N., R.0130W., NMPM

Section 31: Lot 3,4;

Section 31: N2NE,SENE,NENW;

Section 31: E2SW,SWSE;

Section 32: N2,N2SW,SESW,SE;

Section 33: ALL;

Dolores County

Colorado 1612.350 Acres

ATTACHMENT C: Parcels Recommended for Lease with Applied Stipulations

THE FOLLOWING PUBLIC DOMAIN LANDS ARE SUBJECT TO FILINGS IN THE MANNER SPECIFIED IN THE APPLICABLE PORTIONS OF THE REGULATIONS IN 43 CFR, SUBPART 3120.

Stipulations are No Surface Occupancy (NSO), Timing Limitation (TL), Controlled Surface Use (CSU), or Lease Notice.

PARCEL ID: 6715

T.0400N., R.0130W., NMPM

Section 19: Lot 1,2; Section 19: E2W2:

Dolores County

Colorado 196.440 Acres

All lands are subject to Exhibit 1.4.1 (NSO) to protect ephemeral streams.

All lands are subject to Exhibit 1.4.2 (CSU) to protect ephemeral streams.

All lands are subject to Exhibit 1.6.1 (CSU) to protect shallow groundwater resources.

All lands are subject to Exhibit 1.6.2 (CSU) to protect groundwater resources during hydraulic fracturing.

All lands are subject to Exhibit 1.8.1 (Lease Notice) to protect against radioactive materials.

All lands are subject to Exhibit 1.10.1 (CSU) to protect 25-35% slopes and shale soils.

All lands are subject to Exhibit 1.11.1 (NSO) to protect lands prone to mass movement.

All lands are subject to Exhibit 1.13.1 (CSU) to protect biological soil crusts.

All lands are subject to Exhibit 2.1.1 (NSO) to protect threatened, endangered, proposed and candidate plants.

All lands are subject to Exhibit 2.2.1 (CSU) to protect sensitive plants.

All lands are subject to Exhibit 3.2.1 (CSU) to protect lynx habitat.

All lands are subject to Exhibit 3.8.1 (Lease Notice) to protect migratory birds.

All lands are subject to Exhibit 3.9.1 (NSO) to protect raptors.

All lands are subject to Exhibit 3.9.2 (TL) to protect raptors.

All lands are subject to Exhibit 3.10.1 (TL) to protect big game parturition areas.

All lands are subject to Exhibit 3.10.2 (CSU) to protect big game winter range and production areas.

All lands are subject to Exhibit CO-29 (Lease Notice) to protect paleontological resources.

All lands are subject to Exhibit CO-34 to alert lessees of requirements under the Endangered Species Act.

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

All lands are subject to Exhibit CO-56 (Lease Notice) to alert lessees of potential for supplementary air quality analysis and mitigation.

PARCEL ID: 7371

T.0400N., R.0150W., NMPM

Section 27: E2E2,E2W2,SWNW,W2SW;

Section 34: ALL;

Dolores County

Colorado 1080.000 Acres

All lands are subject to Exhibit 1.4.1 (NSO) to protect ephemeral streams.

All lands are subject to Exhibit 1.4.2 (CSU) to protect ephemeral streams.

All lands are subject to Exhibit 1.6.1 (CSU) to protect shallow groundwater resources.

All lands are subject to Exhibit 1.6.2 (CSU) to protect groundwater resources during hydraulic fracturing.

All lands are subject to Exhibit 1.8.1 (Lease Notice) to protect against radioactive materials.

All lands are subject to Exhibit 1.10.1 (CSU) to protect 25-35% slopes and shale soils.

All lands are subject to Exhibit 1.13.1 (CSU) to protect biological soil crusts.

All lands are subject to Exhibit 2.1.1 (NSO) to protect threatened, endangered, proposed and candidate plants.

All lands are subject to Exhibit 2.2.1 (CSU) to protect sensitive plants.

All lands are subject to Exhibit 3.8.1 (Lease Notice) to protect migratory birds.

All lands are subject to Exhibit 3.9.1 (NSO) to protect raptors.

All lands are subject to Exhibit 3.9.2 (TL) to protect raptors.

All lands are subject to Exhibit CO-29 (Lease Notice) to protect paleontological resources.

to protect cultural resourcesAll lands are subject to Exhibit CO-34 to alert lessees of requirements under the Endangered Species Act.

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

All lands are subject to Exhibit CO-56 (Lease Notice) to alert lessees of potential for supplementary air quality analysis and mitigation

The following lands are subject to Exhibit 1.3.1 (NSO) to protect perennial water bodies: T.0400N., R.0150W., NMPM

Section 27: E2E2, E2NW, SWNW, E2SW, SWSW;

Section 34: NE, N2SE, SESE, SW, E2NW;

The following lands are subject to Exhibit 1.3.2 (CSU) to protect perennial water bodies: T.0400N., R.0150W., NMPM

Section 27: E2E2, E2NW, SWNW, E2SW, SWSW;

Section 34: N2S2, SW, SESE;

The following lands are subject to Exhibit 1.9.1 (NSO) to protect greater than 35% slopes:

T.0400N., R.0150W., NMPM

Section 27: SWNW, SW;

Section 34: SWNE, NW, N2SW, NWSE;

The following lands are subject to Exhibit 1.11.1 (NSO) to protect lands prone to mass movement:

T.0400N., R.0150W., NMPM

Section 27: E2E2, NENW, SWNW, W2SW, SESW;

Section 34: ALL;

The following lands are subject to Exhibit 3.11.1 (CSU) to protect Gunnison prairie dog: Section 34: S2SW;

The following lands are subject to Exhibit 4.9.1 (NSO) to protect visual resources:

Section 27: E2NE, NESE;

Section 34: SWNE, NWSE;

PVT/BLM; COS:TRFO

PARCEL ID: 7372

T.0410N., R.0130W., NMPM

Section 3: Lot 1-4;

Section 3: S2N2,S2;

Section 4: Lot 1-4;

Section 4: S2NE,NWSW,NESE,S2S2;

Section 5: Lot 1;

Section 5: SENE,S2;

Dolores County

Colorado 1519.900 Acres

All lands are subject to Exhibit 1.4.1 (NSO) to protect ephemeral streams.

All lands are subject to Exhibit 1.4.2 (CSU) to protect ephemeral streams.

All lands are subject to Exhibit 1.6.1 (CSU) to protect shallow groundwater resources.

All lands are subject to Exhibit 1.6.2 (CSU) to protect groundwater resources during hydraulic fracturing.

All lands are subject to Exhibit 1.8.1 (Lease Notice) to protect against radioactive materials.

All lands are subject to Exhibit 1.10.1 (CSU) to protect 25-35% slopes and shale soils.

All lands are subject to Exhibit 1.11.1 (NSO) to protect lands prone to mass movement.

All lands are subject to Exhibit 1.13.1 (CSU) to protect biological soil crusts.

All lands are subject to Exhibit 2.1.1 (NSO) to protect threatened, endangered, proposed and candidate plants.

All lands are subject to Exhibit 2.2.1 (CSU) to protect sensitive plants.

All lands are subject to Exhibit 3.8.1 (Lease Notice) to protect migratory birds.

All lands are subject to Exhibit 3.9.1 (NSO) to protect raptors.

All lands are subject to Exhibit 3.9.2 (TL) to protect raptors.

All lands are subject to Exhibit 3.10.1 (TL) to protect big game parturition areas.

All lands are subject to Exhibit 3.10.2 (CSU) to protect big game winter range and production areas.

All lands are subject to Exhibit 3.13.1 (NSO) to protect State Wildlife Areas.

All lands are subject to Exhibit CO-29 (Lease Notice) to protect paleontological resources.

All lands are subject to Exhibit CO-34 to alert lessees of requirements under the Endangered Species Act.

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

All lands are subject to Exhibit CO-56 (Lease Notice) to alert lessees of potential for supplementary air quality analysis and mitigation

The following lands are subject to Exhibit 1.3.1 (NSO) to protect perennial water bodies:

T.0410N., R.0130W., NMPM

Section 3: Lot 1-4,

Section 3: SWNW, S2SE, SESW;

Section 4: Lot 1-2, Lot 4

Section 4: SENE, NWSW, NESE, S2S2;

Section 5: Lot 1

Section 5: SENE, N2SE, SWSE, W2SW;

The following lands are subject to Exhibit 1.3.2 (CSU) to protect perennial water bodies:

T.0410N., R.0130W., NMPM

Section 3: Lot 1-4

Section 3: S2NW, S2SE, SESW;

Section 4: Lot 1-4;

Section 4: S2NE,NWSW,NESE,S2S2;

Section 5: Lot 1,

Section 5: SENE, N2SE, SWSE, W2SW, SESW;

The following lands are subject to Exhibit 1.9.1 (NSO) to protect greater than 35% slopes:

T.0410N., R.0130W., NMPM

Section 3: Lot 1-4;

Section 3: S2N2,S2;

Section 4: Lot 4;

Section 4: S2NE,NWSW,NESE,S2S2;

Section 5: SW, E2SE;

PVT/BLM; COS:TRFO

PARCEL ID: 7373

T.0410N., R.0130W., NMPM

Section 6: Lot 2-7;

Section 6: SWNE, SENW;

Section 6: NESW, N2SE, SESE;

Dolores County

Colorado 503.640 Acres

All lands are subject to Exhibit 1.4.1 (NSO) to protect ephemeral streams.

All lands are subject to Exhibit 1.4.2 (CSU) to protect ephemeral streams.

All lands are subject to Exhibit 1.6.1 (CSU) to protect shallow groundwater resources.

All lands are subject to Exhibit 1.6.2 (CSU) to protect groundwater resources during hydraulic fracturing.

All lands are subject to Exhibit 1.8.1 (Lease Notice) to protect against radioactive materials.

All lands are subject to Exhibit 1.10.1 (CSU) to protect 25-35% slopes and shale soils.

All lands are subject to Exhibit 1.11.1 (NSO) to protect lands prone to mass movement.

All lands are subject to Exhibit 1.13.1 (CSU) to protect biological soil crusts.

All lands are subject to Exhibit 2.1.1 (NSO) to protect threatened, endangered, proposed and candidate plants.

All lands are subject to Exhibit 2.2.1 (CSU) to protect sensitive plants.

All lands are subject to Exhibit 3.8.1 (Lease Notice) to protect migratory birds.

All lands are subject to Exhibit 3.9.1 (NSO) to protect raptors.

All lands are subject to Exhibit 3.9.2 (TL) to protect raptors.

All lands are subject to Exhibit 3.10.1 (TL) to protect big game parturition areas.

All lands are subject to Exhibit 3.10.2 (CSU) to protect big game winter range and production areas.

All lands are subject to Exhibit CO-29 (Lease Notice) to protect paleontological resources.

All lands are subject to Exhibit CO-34 to alert lessees of requirements under the Endangered Species Act.

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

All lands are subject to Exhibit CO-56 (Lease Notice) to alert lessees of potential for supplementary air quality analysis and mitigation

The following lands are subject to Exhibit 1.3.1 (NSO) to protect perennial water bodies:

T.0410N., R.0130W., NMPM

Section 6: Lot 3-5, 7 Section 6: NESE, SESE;

The following lands are subject to Exhibit 1.3.2 (CSU) to protect perennial water bodies:

T.0410N., R.0130W., NMPM

Section 6: Lot 3-5, 7 Section 5: N2SE, SESE;

The following lands are subject to Exhibit 1.7.1 (NSO) to protect reservoirs and lakes:

Section 6: Lot 3-6

Section 6: SENW, NESW, N2SE, SESE;

The following lands are subject to Exhibit 1.9.1 (NSO) to protect greater than 35% slopes:

T.0410N., R.0130W., NMPM

Section 6: Lot 2; Section 6: SESE;

PVT/BLM; COS:TRFO

PARCEL ID: 7379

T.0380N., R.0160W., NMPM

Section 11: SW,W2SE; Section 14: W2E2,W2;

Montezuma County

Colorado 720.000 Acres

All lands are subject to Exhibit 1.4.1 (NSO) to protect ephemeral streams.

All lands are subject to Exhibit 1.4.2 (CSU) to protect ephemeral streams.

All lands are subject to Exhibit 1.6.1 (CSU) to protect shallow groundwater resources.

All lands are subject to Exhibit 1.6.2 (CSU) to protect groundwater resources during hydraulic fracturing.

All lands are subject to Exhibit 1.8.1 (Lease Notice) to protect against radioactive materials.

All lands are subject to Exhibit 1.13.1 (CSU) to protect biological soil crusts.

All lands are subject to Exhibit 2.1.1 (NSO) to protect threatened, endangered, proposed and candidate plants.

All lands are subject to Exhibit 2.2.1 (CSU) to protect sensitive plants.

All lands are subject to Exhibit 3.8.1 (Lease Notice) to protect migratory birds.

All lands are subject to Exhibit 3.9.1 (NSO) to protect raptors.

All lands are subject to Exhibit 3.9.2 (TL) to protect raptors.

All lands are subject to Exhibit 3.10.2 (CSU) to protect big game winter range and production areas.

All lands are subject to Exhibit 3.10.3 (TL) to protect big game winter areas.

All lands are subject to Exhibit CO-29 (Lease Notice) to protect paleontological resources.

All lands are subject to Exhibit CO-34 to alert lessees of requirements under the Endangered Species Act.

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

All lands are subject to Exhibit CO-56 (Lease Notice) to alert lessees of potential for supplementary air quality analysis and mitigation

The following lands are subject to Exhibit 1.3.1 (NSO) to protect perennial water bodies: T.0380N., R.0160W., NMPM

Section 11: NWSW, S2SW;

Section 14: NWSE;

The following lands are subject to Exhibit 1.3.2 (CSU) to protect perennial water bodies:

T.0380N., R.0160W., NMPM

Section 11: NWSW, S2SW;

Section 14: NWSE;

The following lands are subject to Exhibit 1.9.1 (NSO) to protect greater than 35% slopes:

T.0380N., R.0160W., NMPM

Section 11: W2SE;

The following lands are subject to Exhibit 1.10.1 (CSU) to protect 25-35% slopes and shale soils:

T.0380N., R.0160W., NMPM

Section 11: N2SW, SESW, W2SE;

Section 14: NWNE, NWSE;

The following lands are subject to Exhibit 1.11.1 (NSO) to protect lands prone to mass movement:

T.0380N., R.0160W., NMPM

Section 11: SW, NWSE;

Section 14: SWNE, W2, SWSE;

The following lands are subject to Exhibit 3.11.1 (CSU) to protect Gunnison prairie dog:

T.0380N., R.0160W., NMPM

Section 11: SW, SWSE;

Section 14: W2E2,W2;

PVT/BLM; COS:TRFO

PARCEL ID: 7390

T.0420N., R.0130W., NMPM

Section 31: Lot 3,4;

Section 31: N2NE, SENE, NENW;

Section 31: E2SW,SWSE;

Section 32: N2,N2SW,SESW,SE;

Section 33: ALL;

Dolores County

Colorado 1612.350 Acres

All lands are subject to Exhibit 1.4.1 (NSO) to protect ephemeral streams.

All lands are subject to Exhibit 1.4.2 (CSU) to protect ephemeral streams.

All lands are subject to Exhibit 1.6.1 (CSU) to protect shallow groundwater resources.

All lands are subject to Exhibit 1.6.2 (CSU) to protect groundwater resources during hydraulic fracturing.

All lands are subject to Exhibit 1.8.1 (Lease Notice) to protect against radioactive materials.

All lands are subject to Exhibit 1.10.1 (CSU) to protect 25-35% slopes and shale soils.

All lands are subject to Exhibit 1.11.1 (NSO) to protect lands prone to mass movement.

All lands are subject to Exhibit 1.13.1 (CSU) to protect biological soil crusts.

All lands are subject to Exhibit 2.1.1 (NSO) to protect threatened, endangered, proposed and candidate plants.

All lands are subject to Exhibit 2.2.1 (CSU) to protect sensitive plants.

All lands are subject to Exhibit 3.8.1 (Lease Notice) to protect migratory birds.

All lands are subject to Exhibit 3.9.1 (NSO) to protect raptors.

All lands are subject to Exhibit 3.9.2 (TL) to protect raptors.

All lands are subject to Exhibit 3.10.1 (TL) to protect big game parturition areas.

All lands are subject to Exhibit 3.10.2 (CSU) to protect big game winter range and production areas.

All lands are subject to Exhibit 3.13.1 (NSO) to protect State Wildlife Areas.

All lands are subject to Exhibit CO-29 (Lease Notice) to protect paleontological resources.

All lands are subject to Exhibit CO-34 to alert lessees of requirements under the Endangered Species Act.

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

All lands are subject to Exhibit CO-56 (Lease Notice) to alert lessees of potential for supplementary air quality analysis and mitigation

The following lands are subject to Exhibit 1.3.1 (NSO) to protect perennial water bodies: T.0420N., R.0130W., NMPM

Section 31: Lot 3, 4;

Section 31: NESW, SWSE;

Section 32: E2, S2NW, N2SW, SESW;

Section 33: NWSE, SW, E2NW, NWNW;

The following lands are subject to Exhibit 1.3.2 (CSU) to protect perennial water bodies: T.0420N., R.0130W., NMPM

Section 31: Lot 3, 4;

Section 31: E2SW, SWSE, NESW, NWNE, NENE, SENE;

Section 32: E2, S2NW, N2SW, SESW;

Section 33: N2SE, SW, E2NW, NWNW;

The following lands are subject to Exhibit 1.7.1 (NSO) to protect Reservoirs and Lakes:

Section 31: E2SW, SWSE, SENE;

Section 32: SWNW, NWSW;

The following lands are subject to Exhibit 1.9.1 (NSO) to protect greater than 35% slopes:

T.0420N., R.0130W., NMPM

Section 31: SWSE;

Section 32: W2NE, NENW, S2NW, SESW;

Section 33: N2NE;

ATTACHMENT D: Stipulation Descriptions

Lease Number: <LEASE_NUMBER>

NO SURFACE OCCUPANCY

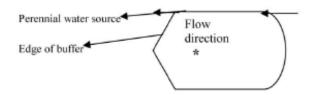
Perennial Streams, Water Bodies, Riparian Areas, and Fens

No surface occupancy or use is allowed on the lands described below: Prohibit surface occupancy and surface-disturbing activities within a minimum buffer distance of 325 horizontal feet for all perennial waters. For perennial streams, the buffer would be measured from the ordinary high water mark (bankfull stage), whereas for wetland features, the buffer would be measured from the edge of the mapped extent (Table H.1). For unmapped wetlands, the vegetative boundary (from which the buffer originates) would be determined in the field. Where the riparian zone extends beyond 325 feet, the NSO stipulation would be extended to include the entire riparian zone.

Table H.1: No Surface Occupancy Buffers for Perennial Waters

Water Body Type	Buffer Width (feet)
Fens and wetlands	325*
Perennial streams (with or without fish)	325 (as measured from ordinary high water mark)
Lotic or lentic springs and seeps	325 (as measured from wetland vegetation edge)
Riparian	325 (or greater if riparian area is wider than 325 feet)

^{*}See Modification.



Wetland buffer dimensions may be averaged to accommodate variability in terrain or development plans. Up-gradient distances should be maintained (i.e., up- gradient buffer distances of 325 feet), while down-gradient buffers may be reduced to no less than 100 feet. The buffer averaging must, however, not adversely affect wetland functions and values, and a minimum buffer distance of 100 feet from the wetland edge is maintained. The buffer's intent is to protect the water source area of the wetland, which is more important than the down-gradient portion of the wetland.

For the purpose of: Maintaining the proper functioning condition, including the vegetative, hydrologic and geomorphic functionality of the perennial water body. Protect water quality, fish habitat, aquatic habitat, and provide a clean, reliable source of water for downstream users. Buffers are expected to indirectly benefit migratory birds, wildlife habitat, amphibians, and other species.

Justification: Wetlands, floodplains, riparian areas, water influence zones, and fens represent important ecological components and functions, such as storing water, stabilizing valley floors,

enhancing water quality, and providing recreation and aesthetic values, biological diversity, and wildlife species with habitat, water, food, cover, and travel routes. They are easily disturbed by ground-disturbing activities that can cause soil erosion, soil compaction, and adverse changes to the hydrologic function that is important to maintaining the hydrologic and ecological integrity of these lands.

Exceptions, modifications, and waivers would be considered for BLM leases.

On the lands described below:

<LEGAL_DESCRIPTIONS>

Lease Number: <LEASE_NUMBER>

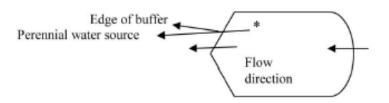
CONTROLLED SURFACE USE

Perennial Streams, Water Bodies, Riparian Areas, and Fens

Surface occupancy or use is subject to the following special operating constraints: From 325 to 500 horizontal feet from the perennial water body, CSU restrictions would apply. Surface-disturbing activities may require special engineering design, construction and implementation measures, including re-location of operations beyond 656 feet (200 meters) to protect water resources within the 325 foot NSO buffer. For perennial streams, the buffer would be measured from ordinary high water mark (bankfull stage), whereas for wetland features, the buffer would be measured from the edge of the mapped extent (Table H.2). For unmapped wetlands, the vegetative boundary (from which the buffer originates) would be determined in the field.

Table H.2: Controlled Surface Use buffers for perennial waters.

Water Body Type	Buffer Width (feet)
Fens and wetlands	325-500*
Perennial streams (with or without fish)	325-500 (as measured from ordinary high water mark)
Lotic or lentic springs and seeps	325-500 (as measured from wetland vegetation edge)



For the purpose of: Maintaining the proper functioning condition, including the vegetative, hydrologic, and geomorphic functionality of the perennial water body, to protect water quality, fish habitat, and aquatic habitat and provide a clean, reliable source of water for downstream users. Buffers are expected to indirectly benefit migratory birds, wildlife habitat, amphibians, and other species.

Justification: Minimizing potential deterioration of water quality; maintaining natural hydrologic function and condition of stream channels, banks, floodplains, and riparian communities; and preserving wildlife habitat. The buffers are sized to accommodate the rivers' larger floodplains and wider riparian zones.

Exceptions, modifications, and waivers would be considered for BLM leases.

On the lands described below:

<LEGAL DESCRIPTIONS>

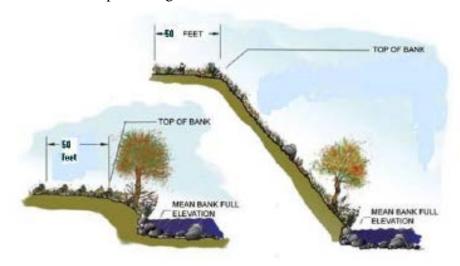
EXHIBIT 1.4.1

Lease Number: <LEASE_NUMBER>

NO SURFACE OCCUPANCY

Intermittent and Ephemeral Streams

No surface occupancy or use is allowed in the lands described below: NSO of 50 horizontal feet as measured from the top of the stream bank for all intermittent or ephemeral streams (see diagram). If riparian vegetation extends beyond the top of the stream bank, the buffer would be measured from the extent of the riparian vegetation.



For the purpose of: Maintaining and protecting water quality, stream stability, aquatic health, seasonal use and downstream fisheries, and sediment processes downstream.

Justification: Minimizing potential deterioration of water quality and maintaining natural hydrologic function and condition of stream channels, banks, floodplains, and riparian communities.

Exceptions, modifications, and waivers would be considered for BLM leases.

On the lands described below:

<LEGAL_DESCRIPTIONS>

EXHIBIT 1.4.2

Lease Number: <LEASE_NUMBER>

CONTROLLED SURFACE USE

Intermittent and Ephemeral Streams

Surface occupancy or use is subject to the following special operating constraints: CSU from the edge of the NSO buffer to 100 horizontal feet. Avoid locating roads, stream crossings, and facilities within this zone, because activities within this area can potentially affect streams and water quality. Adequate professional design and engineering of activities in this zone is necessary to prevent stormwater runoff and sedimentation. Measurement is from the top of the stream bank, although if wetland vegetation exists, then the measurement is from the vegetation's edge.

For the purpose of: Minimizing the risk of sedimentation, spills, and other contaminants reaching intermittent and/or ephemeral streams to protect water quality, stream function, and aquatic habitat.

Justification: CSU in this zone would minimize potential deterioration of water quality, maintain natural hydrologic function and condition of stream channels, banks, floodplains, and riparian communities.

Exceptions, modifications, and waivers would be considered for BLM leases.

On the lands described below:

<LEGAL_DESCRIPTIONS>

EXHIBIT 1.6.1

Lease Number: <LEASE_NUMBER>

CONTROLLED SURFACE USE

Groundwater Resources (shallow)

Surface occupancy or use is subject to the following special operating constraints: Oil and gas surface operations over shallow (<2,000 feet) potentially usable groundwater (<10,000 total dissolved solids) shall use the following protection measures:

- Pitless, self-contained drilling systems.
- In the completion of an oil, gas, injection, disposal, or service well, where acidizing or fracture processes are used, no deleterious substances shall be permitted to pollute subsurface water.
- Flowback and stimulation fluids would be contained within tanks that are placed on a well pad or in a lined, bermed area.
- Fluids, additives, and other materials used for drilling and completion operations must be protective of public health and the environment in the areas where they are used.
- For well where a multi-stage high volume hydraulic fracturing is anticipated, the operators shall indicate the method used to handle, transport, and dispose of the recovered fluids.

For the purpose of: Minimizing the risk of spills and other contaminants reaching potentially usable groundwater with a water table up to 2,000 feet that is near the surface.

Justification: CSU would minimize the risk of water quality contamination and maintain the integrity of potentially usable groundwater resources for present and future uses.

Exceptions, modifications, and waivers would be considered for BLM leases.

On the lands described below:

<LEGAL DESCRIPTIONS>

EXHIBIT 1.6.2

Lease Number: <LEASE_NUMBER>

CONTROLLED SURFACE USE

Groundwater Resources

Surface occupancy or use is subject to the following special operating constraints: Oil and gas operations using multi-stage hydraulic fracturing shall use the following measures to protect potentially usable water bearing intervals:

- The placement of all stimulation fluids shall be confined to the objective formation to the extent practicable.
- In all directions a minimum of 2,500 feet of buffer distance (or greater if deemed necessary by BLM) between the well bore (production string) and the lower extent of shallow (<2,000 feet), potentially usable groundwater (<10,000 total dissolved solids) aquifer, shall be maintained so that fractures from the hydraulic fracturing process do not intersect shallow aquifers.
- A continuous column of cement shall extend from the surface casing shoe back to ground level. If cement is not circulated to surface, then a remedial cement job shall be performed to ensure complete cement coverage.
- A cement bond log shall be required in the surface string.
- Surface casing set depth shall be at least 50 feet below any potentially usable water bearing interval.
- Pitless, self-contained drilling systems.
- In the completion of an oil, gas, injection, disposal, or service well, where acidizing or fracture processes are used, no deleterious substances shall be permitted to pollute subsurface water.
- Fluids, additives, and other materials used for drilling and completion operations must be protective of public health and the environment in the areas where they are used.
- Operators shall indicate the method used to handle, transport, and dispose of the recovered fluids.
- Upon request of the BLM, operators shall provide reports that disclose the complete chemical makeup of all materials used in the proposed and actual drilling and stimulation fluids without regard to original source additive.

For the purpose of: Protecting potentially usable groundwater.

Justification: CSU would minimize the risk of groundwater contamination and maintain the integrity of potentially usable water bearing intervals for present and future uses.

Exceptions, modifications, and waivers would be considered for BLM leases.

On the lands described below:

<LEGAL DESCRIPTIONS>

EXHIBIT 1.7.1

Lease Number: <LEASE_NUMBER>

NO SURFACE OCCUPANCY

Reservoirs and Lakes

No surface occupancy or use is allowed on the lands described below: For reservoirs and lakes one acre or larger as measured by the high water mark, NSO is stipulated within 0.25 mile of the high water shoreline.

For the purpose of: Protecting water quality and the scenic, recreation, wetland, and wildlife values associated with the lake or reservoir and its shoreline.

Justification: Oil and gas development is incompatible with the emphasized use of these areas.

Exceptions, modifications, and waivers would be considered for BLM leases.

On the lands described below:

<LEGAL_DESCRIPTIONS>

EXHIBIT 1.8.1

Lease Number: <LEASE_NUMBER>

LEASE NOTICE

Technologically Enhanced Naturally Occurring Radioactive Materials

Oil and gas operations targeting shale formations have the potential to bring to the surface, and concentrate, naturally occurring radioactive materials. These operations can lead to the spread of radioactive contamination and potential human health risks. Wells targeting shale gas plays are subject to the following special sampling requirements:

- All exploratory wells targeting shale gas formations shall obtain a representative sample
 of cuttings from the targeted formation and complete analysis in accordance with General
 Provision 3.1.6 of the Colorado Department of Public Health and the Environment
 (CDPHE) Interim Policy and Guidance Pending Rulemaking for Control and Disposition
 if Technologically-Enhanced Naturally Occurring Radioactive Materials in Colorado, or
 the equivalent provisions of any future rulemaking decision. The results shall be provided
 to the SJNF and TRFO.
- During the first multi-stage hydraulic fracturing of a well targeting shale gas in any given section, representative samples of cuttings, flowback fluids, produced waters, and sludge shall be analyzed in accordance with General Provision 3.1.6 of the CDPHE Interim Policy and Guidance Pending Rulemaking for Control and Disposition if Technologically-Enhanced Naturally Occurring Radioactive Materials in Colorado, or the equivalent provisions of any future rulemaking decision. The results shall be provided to the SJNF and TRFO.

On the lands described below:

<LEGAL DESCRIPTIONS>

EXHIBIT 1.9.1

Lease Number: <LEASE_NUMBER>

NO SURFACE OCCUPANCY

Lands with Slopes Greater Than 35 Percent

No surface occupancy is allowed on the lands described below: Lands with slopes greater than 35 percent.

For the purpose of: Preventing mass movement and the associated loss of soil productivity, preventing damage to structures and equipment, and protecting riparian areas, wetlands, and aquatic ecosystems from sedimentation and for safety reasons.

Justification: Slopes greater than 35 percent have high to very high potential for mass movement and excessive sheet erosion especially when they are impacted by ground-disturbing management activities. These lands are also very difficult to reclaim following disturbance.

Exceptions, modifications, and waivers would be considered for BLM leases.

On the lands described below:

<LEGAL_DESCRIPTIONS>

EXHIBIT 1.10.1

Lease Number: <LEASE_NUMBER>

CONTROLLED SURFACE USE

Lands with 25 to 35 Percent Slopes and Lands with Shale Soils

Surface occupancy or use is subject to the following special operating constraints: Management activities proposed on those lands would require the lessee to submit an operating plan to an authorized official, which may include special design, construction, and implementation measures (including the relocation of operations by more than 650 feet) that describes how soil erosion, soil compaction, and runoff would be prevented or minimized, and how disturbed sites would be reclaimed.

For the purpose of: Preventing soil erosion, soil compaction, and runoff and the associated loss of soil productivity, and protecting riparian areas, wetlands, and aquatic ecosystems from sedimentation.

Justification: Lands with slopes of 25% to 35% and lands with shale soils have moderate to high potential for soil erosion, soil compaction, and runoff particularly when they are impacted by ground-disturbing management activities.

Exceptions, modifications, and waivers would be considered for BLM leases.

On the lands described below:

<LEGAL_DESCRIPTIONS>

EXHIBIT 1.11.1

Lease Number: <LEASE_NUMBER>

NO SURFACE OCCUPANCY

Lands Prone to Mass Movement

No surface occupancy is allowed on the lands described below: Lands prone to mass movement and lands within a 100-foot buffer around those lands. Lands prone to mass movement include canyon escarpments, hill/mountain dipslopes, lands with unstable geologic formations (including the Morrison, Mancos Shale, Lewis Shale, and Fruitland Formations on the SJNF and TRFO), lands that display evidence of past mass movement (including landslides, landflows, and landslumps), lands lacking vegetation (badlands and burned areas), lands with slopes greater than 35%, and lands associated with map units that have high or very high potential for mass movement (including soil survey map units 254, 386, 606, 720, 926, 20511D, 30506D, 34301D, 34306D, 34506D, 50803D, 50806D, 70806D, 70807D, 74803D, 80604D, 80803D, and 80804D).

For the purpose of: Preventing mass movement and the associated loss of soil productivity, as well as damage to structures and equipment, and for safety reasons.

Justification: The potential for mass movement and its adverse affects is high to very high for lands prone to mass movement especially when those lands are impacted by ground-disturbing activities. Mass movement could cause ruptured pipelines, water/oil/condensate spills, gas explosions, and damaged storage tanks, and could cause injury to people. Those lands are also very difficult to reclaim.

Exceptions, modifications, and waivers would be considered for BLM leases.

On the lands described below:

<LEGAL DESCRIPTIONS>

EXHIBIT 1.13.1

Lease Number: <LEASE_NUMBER>

CONTROLLED SURFACE USE

Lands with Biological Soil Crusts

Surface occupancy or use is subject to the following special operating constraints: On lands with biological soil crusts exhibiting a Level of Darkness class of 4 or above on the soil surface (see Belnap et al. 2008). Management activities proposed on those lands would require the lessee to submit an operating plan to an authorized BLM or USFS official, which may include special design, construction, and implementation measures (including the relocation of operations by more than 650 feet) that describes how impacts to biological soil crusts would be prevented or minimized, and how disturbed sites would be reclaimed.

For the purpose of: Protecting biological soil crusts and the important ecosystems in which they occur.

Justification: Biological soil crusts (also known as microbiotic or cryptogamic crusts) are unique components of biodiversity and important components of the semi-desert shrublands, semi-desert grasslands, sagebrush shrublands, and pinyon-juniper woodlands on the SJNF and TRFO. They play an important role in ecosystem restoration, they are very sensitive to disturbances, and they are very slow to recover from disturbances (Bowker 2007). Ground-disturbing activities could cause direct effects to biological soil crusts including mortality and could cause soil erosion and soil compaction to the associated soils, which could adversely affect the crusts habitat.

Exceptions, modifications, and waivers would be considered for BLM leases.

On the lands described below:

EXHIBIT 2.1.1

Lease Number: <LEASE_NUMBER>

NO SURFACE OCCUPANCY

Threatened or Endangered Plants, Plants Proposed for Federal Listing, or Candidate Plants for Federal Listing

No surface occupancy is allowed on the lands described below: Lands occupied by plant species that are federally listed (threatened or endangered), proposed for federal listing, or candidates for federal listing; lands designated as critical habitat for federally listed species; and lands within a 650 foot (i.e., 200 meter) buffer around all those lands.

For the purpose of: To protect rare plant species and their critical habitat from direct and indirect impacts associated with management actions that could adversely affect their viability and could lead to their extinction.

Justification: Management actions on the SJNF and TRFO could affect federally listed plant species (threatened or endangered), plant species proposed for federal listing, and plant species that are candidates for federal listing; and could affect the critical habitat for those species, which could adversely affect the viability of those species and could lead to their extinction.

Exceptions, modifications, and waivers would be considered for BLM leases.

On the lands described below:

EXHIBIT 2.2.1

Lease Number: <LEASE_NUMBER>

CONTROLLED SURFACE USE

Colorado Bureau of Land Management State Director's Sensitive Plants and Region 2 Regional Forester's Sensitive Plants

Controlled surface use is allowed on the lands described below: Lands occupied by Colorado BLM State Director's Sensitive Plant Species, Region 2 Regional Forester's Sensitive Plant Species, and on lands within a 325-foot buffer around lands occupied by those plant species. Management activities proposed on those lands would require the lessee to submit an operating plan to a BLM Authorized Official, which may include special design, construction, and implementation measures (including the relocation of operations by more than 650 feet) that describes how impacts to BLM State Director's Sensitive Plant Species and Region 2 Regional Forester's Sensitive Plant Species would be prevented or minimized and how disturbed sites would be reclaimed.

For the purpose of: Protecting rare plant species and their habitat from direct and indirect impacts associated with management actions that could adversely affect those rare plants.

Justification: Management actions on the SJNF and TRFO could affect Colorado BLM State Director's Sensitive Plant Species, Region 2 Regional Forester's Sensitive Plant Species, and their habitat, which could adversely affect the viability of those species and could lead to a trend to federal listing under the Endangered Species Act.

Exceptions, modifications, and waivers would be considered for BLM leases.

On the lands described below:

EXHIBIT 3.8.1

Lease Number: <LEASE_NUMBER>

LEASE NOTICE

Migratory Birds

Avoid or minimize disruption of migratory bird nesting activity by siting or prioritizing vegetation clearing, facility construction, and concentrated operational activities (e.g., drilling, completion, utility installation) to avoid the involvement of higher value migratory bird habitats, particularly during the core migratory bird nesting season (April 1–July 15).

On the lands described below:

EXHIBIT 3.9.1

Lease Number: <LEASE_NUMBER>

NO SURFACE OCCUPANCY

Eagles, All Accipiters, Falcons, Buteos, and Owls

No surface occupancy or use is allowed on the lands described below: Within specified distance from nest and communal winter roost sites, NSO would be allowed. Distances are listed in Table H.3.

For the purpose of: Provide adequate nesting and roost sites to support species populations.

Justification: These raptor species are known to have failed reproduction and abandon nests and communal winter roost sites when human activity occurs within the specified buffer distances from these sites. To increase the likelihood of successful reproduction and recruitment of these species, and to provide adequate roost sites for utilization of their habitat, NSO would be permitted within the specified buffer distances from nest and roost sites (see Table H.3).

Exceptions, modifications, and waivers would be considered for BLM leases.

On the lands described below:

Table H.3: Raptor Conservation Measures

Table H.3: Kapt	or Conservation Measu			
Species	Impact/Risk	Time Frame	Buffer Distance Restrictions	Reference
Golden eagle	Disturbance	December 15- July 15	Project-related activity should not occur within a 0.5 mile of nest during nesting season. (G)	CPW 2008
Golden eagle	Structural improvements *	Year round	New structures must not occur within 0.5-mile radius of active nest. (S)	CPW 2008
Bald eagle	Disturbance	November 15– July 15	Project-related activity should not occur within 0.5 mile of nest during nesting season. (G)	SJNF and TRFO
Bald eagle	Structural improvements *	Year round	New structures must not occur within a 0.5-mile radius of active nest. (S)	SJNF and TRFO
Bald eagle	Disturbance	November 15– March 15	Project-related activity should not occur within a 0.25-mile radius (indirect line of sight) or a 0.5-mile radius (direct line of sight) of communal winter roost site. Limit activity between 1000 and 1400 hours if encroachment would occur within buffer zones. (G)	CPW 2008
Bald eagle	Structural improvements *	Year round	New structures must not occur within 0.5 mile of communal roost site (S)	SJNF and TRFO
Bald eagle	Disturbance and structural improvements *	Site specific, to be determined by the project biologist	For preferred diurnal hunting perch	CPW 2008
Osprey	Disturbance **	April 1–August 31	Project-related activity should not occur within a 0.25-mile of nest during nesting season.	SJNF and TRFO
Osprey	Structural improvements *	Year-round	New structures should not occur within a 0.25-mile radius of active nest. (G)	CPW 2008
Red-tailed hawk	Disturbance	March 1-July 15	Project-related activity should not occur within 0.125 to 0.25 mile of nest during nesting season, as determined by the project biologist. (G)	SJNF and TRFO
Red-tailed hawk	Structural improvements *	Year-round	New structures should not occur within 0.25-mile radius of active nest. (G)	SJNF and TRFO
Peregrine falcon	Disturbance	March 15–July 31	Project-related activity should not occur within 0.5 mile of nest during nesting season.	CPW 2008
Peregrine falcon	Structural improvements *	Year-round	New structures must not occur within 0.5 mile radius of active cliff nest complex. (S)	CPW 2008
Prairie falcon	Disturbance	March 15-July 15	Project-related activity should not occur within 0.5 mile of nest during nesting season. (G)	CPW 2008
Prairie falcon	Structural	Year-round	New structures must not occur	CPW 2008

Species	Impact/Risk	Time Frame	Buffer Distance	Reference
			Restrictions	
	improvements *		within a 0.5-mile radius of active	
			nest.	
Northern	Disturbance	March 1-	Project-related activity should not	SJNF and TRFO
goshawk		August 31	occur within 0.5 mile of nest	
Northern	Characterial	Year-round	during nesting season. (G)	CPW 2008
	Structural	r ear-round	New structures should not occur within a 0.5-mile radius of active	CPW 2008
goshawk	improvements *			
Duraning and	Disturbance	March 15-	nest. (G) Project-related activity should not	SINF and TRFO
Burrowing owl	Distilloance	August 15	occur within 0.25 mile of nest	SJIVE AUG TREO
		August 15	burrows when owls may be	
			present during nesting season. (G)	
Burrowing owl	Structural	Year-round	New structures should not occur	Romin and Muck
	improvements *		within a 0.25-mile radius of	2002
	•		active nests or within occupied	
			habitat. (G)	
All other	Disturbance **	Varied by	Determination of the application	Romin and Muck
accipter, buteo,		species	of these specific seasonal	2002
falcon, harrier,			restrictions, TL, and/or buffer	
and owls			distances should be made by the	
			project biologist, guided by	
			agency requirements, along with	
			professional knowledge and	
			experience. They would be	
			considered on a case by case	
			basis, taking into consideration	
			site-specific factors such as	
			topography, vegetation, species of	
			raptor, historic patterns of human activity and infrastructure, and	
			observed behaviors of individual	
			birds (G)	
All other	Structural	Varied by	Determination of the application	Romin and Muck
accipter, buteo,	improvements *	species	of these specific seasonal	2002
falcon, harrier,			restrictions, TL, and/or buffer	
and owls			distances should be made by the	
			project biologist, guided by	
			agency requirements, along with	
			professional knowledge and	
			experience. They would be	
			considered on a case by case	
			basis, taking into consideration	
			site-specific factors such as	
			topography, vegetation, species of	
			raptor, historic patterns of human	
			activity and infrastructure, and	
			observed behaviors of individual	
			birds. (G)	

Structures include improvements such as roads, radio towers, oil wells, etc., proposed following nest establishment and is not intended to include structures that historically occurred in the area.

Note: "S" indicates an LRMP standard and "G" indicates an LRMP guideline.

^{**} This does not apply to historic levels and patterns of disturbance under which the nest was established and is intended to apply to additional levels and change in disturbance patterns.

EXHIBIT 3.9.2

Lease Number: <LEASE_NUMBER>

TIMING LIMITATION

Eagles, All Accipiters, Falcons, Buteos, and Owls

No surface use is allowed during the following time period(s): A TL would be applied to lease activities, if surface occupancy is allowed. The TL would apply to all development activities (construction, drilling, workovers, operation, and maintenance). The duration of the timing limitation is species-dependent, and the timing limitation subject to this stipulation are shown in Table H.3.

For the Purpose of:

Justifications: These raptor species are known to have failed reproduction and abandon nests and communal winter roost sites when human activity occurs within the specified buffer distances from these sites. To increase the likelihood of successful reproduction and recruitment of these species, and to provide adequate roost sites for utilization of their habitat, NSO would be permitted within the specified buffer distances from nest and roost sites (see Table H.3).

Exceptions, modifications, and waivers would be considered for BLM leases.

On the lands described below:

Table H.3: Raptor Conservation Measures

Table H.3: Kapt	or Conservation Measu			
Species	Impact/Risk	Time Frame	Buffer Distance Restrictions	Reference
Golden eagle	Disturbance	December 15- July 15	Project-related activity should not occur within a 0.5 mile of nest during nesting season. (G)	CPW 2008
Golden eagle	Structural improvements *	Year round	New structures must not occur within 0.5-mile radius of active nest. (S)	CPW 2008
Bald eagle	Disturbance	November 15– July 15	Project-related activity should not occur within 0.5 mile of nest during nesting season. (G)	SJNF and TRFO
Bald eagle	Structural improvements *	Year round	New structures must not occur within a 0.5-mile radius of active nest. (S)	SJNF and TRFO
Bald eagle	Disturbance	November 15– March 15	Project-related activity should not occur within a 0.25-mile radius (indirect line of sight) or a 0.5-mile radius (direct line of sight) of communal winter roost site. Limit activity between 1000 and 1400 hours if encroachment would occur within buffer zones. (G)	CPW 2008
Bald eagle	Structural improvements *	Year round	New structures must not occur within 0.5 mile of communal roost site (S)	SJNF and TRFO
Bald eagle	Disturbance and structural improvements *	Site specific, to be determined by the project biologist	For preferred diurnal hunting perch	CPW 2008
Osprey	Disturbance **	April 1–August 31	Project-related activity should not occur within a 0.25-mile of nest during nesting season.	SJNF and TRFO
Osprey	Structural improvements *	Year-round	New structures should not occur within a 0.25-mile radius of active nest. (G)	CPW 2008
Red-tailed hawk	Disturbance	March 1-July 15	Project-related activity should not occur within 0.125 to 0.25 mile of nest during nesting season, as determined by the project biologist. (G)	SJNF and TRFO
Red-tailed hawk	Structural improvements *	Year-round	New structures should not occur within 0.25-mile radius of active nest. (G)	SJNF and TRFO
Peregrine falcon	Disturbance	March 15–July 31	Project-related activity should not occur within 0.5 mile of nest during nesting season.	CPW 2008
Peregrine falcon	Structural improvements *	Year-round	New structures must not occur within 0.5 mile radius of active cliff nest complex. (S)	CPW 2008
Prairie falcon	Disturbance	March 15-July 15	Project-related activity should not occur within 0.5 mile of nest during nesting season. (G)	CPW 2008
Prairie falcon	Structural	Year-round	New structures must not occur	CPW 2008

Species	Impact/Risk	Time Frame	Buffer Distance	Reference
			Restrictions	
	improvements *		within a 0.5-mile radius of active	
			nest.	
Northern	Disturbance	March 1-	Project-related activity should not	SJNF and TRFO
goshawk		August 31	occur within 0.5 mile of nest	
Northern	Characterial	Year-round	during nesting season. (G)	CPW 2008
	Structural	r ear-round	New structures should not occur within a 0.5-mile radius of active	CPW 2008
goshawk	improvements *			
Duraning and	Disturbance	March 15-	nest. (G) Project-related activity should not	SINF and TRFO
Burrowing owl	Distilloance	August 15	occur within 0.25 mile of nest	SJIVE AUG TREO
		August 15	burrows when owls may be	
			present during nesting season. (G)	
Burrowing owl	Structural	Year-round	New structures should not occur	Romin and Muck
	improvements *		within a 0.25-mile radius of	2002
	•		active nests or within occupied	
			habitat. (G)	
All other	Disturbance **	Varied by	Determination of the application	Romin and Muck
accipter, buteo,		species	of these specific seasonal	2002
falcon, harrier,			restrictions, TL, and/or buffer	
and owls			distances should be made by the	
			project biologist, guided by	
			agency requirements, along with	
			professional knowledge and	
			experience. They would be	
			considered on a case by case	
			basis, taking into consideration	
			site-specific factors such as	
			topography, vegetation, species of	
			raptor, historic patterns of human activity and infrastructure, and	
			observed behaviors of individual	
			birds (G)	
All other	Structural	Varied by	Determination of the application	Romin and Muck
accipter, buteo,	improvements *	species	of these specific seasonal	2002
falcon, harrier,			restrictions, TL, and/or buffer	
and owls			distances should be made by the	
			project biologist, guided by	
			agency requirements, along with	
			professional knowledge and	
			experience. They would be	
			considered on a case by case	
			basis, taking into consideration	
			site-specific factors such as	
			topography, vegetation, species of	
			raptor, historic patterns of human	
			activity and infrastructure, and	
			observed behaviors of individual	
			birds. (G)	

Structures include improvements such as roads, radio towers, oil wells, etc., proposed following nest establishment and is not intended to include structures that historically occurred in the area.

Note: "S" indicates an LRMP standard and "G" indicates an LRMP guideline.

^{**} This does not apply to historic levels and patterns of disturbance under which the nest was established and is intended to apply to additional levels and change in disturbance patterns.

EXHIBIT 3.10.1

Lease Number: <LEASE_NUMBER>

TIMING LIMITATION

Big Game Parturition

No surface use is allowed during the following time period(s): In areas mapped as big game parturition areas for:

- Pronghorn antelope fawning areas (on SJNF and TRFO lands this includes the overall range for the species): May 1 through July 1
- Elk calving areas: May 15 through June 30
- Rocky Mountain bighorn sheep lambing: April 15 through June 30
- Desert bighorn sheep lambing: February 1 through May 1

For the purpose of: Parturition areas are critical habitat in maintaining herd sustainability. Disturbance during critical times can result in mortality and loss of reproductive recruitment into the population.

Justifications: In order to reduce behavioral disruption during parturition and early young rearing period.

Exceptions, modifications, and waivers would be considered for BLM leases.

On the lands described below:

EXHIBIT 3.10.2

Lease Number: <LEASE_NUMBER>

CONTROLLED SURFACE USE

Severe Winter Range, Winter Concentration and Mule Deer Critical Winter Range and Big Game Production Areas

Surface occupancy or use is subject to the following special operating constraints: In order to provide for healthy ungulate populations capable of meeting state population objectives, anthropomorphic activity and improvements should be designed to maintain and continue to provide effective habitat components that support critical life functions. This includes components of size and quality on the landscape providing connectivity to seasonal habitats (wildlife travel corridors), production areas, severe winter range, and winter concentration areas, along with other habitat components necessary to support herd viability.

For the purpose of: Protecting priority habitats such as winter concentration areas for big game in order to prevent abandonment of critical habitat, and to maintain reproductive success, recruitment, and survival.

Justification: There is a growing body of evidence that TL stipulations on oil and gas development activities are not adequate to protect critical winter habitat and migratory corridors for big game. Managing the concentration and development such as drilling, construction, and the density of surface facilities may be necessary to maintain big game populations in developing areas. Examples may include surface disturbance caps, collocation of facilities, and central gathering facilities, noise reduction, and efforts to minimize traffic and road densities. Routine production activities would be allowed, however workover activities should be handled on a case by case basis.

On the lands described below:

EXHIBIT 3.10.3

Lease Number: <LEASE_NUMBER>

TIMING LIMITATION

Winter Range

No surface use is allowed during the following time period(s): In mapped big game severe winter range, winter concentration areas, and mule deer critical winter habitat:

- Pronghorn antelope: December 1 through April 30
- Rocky Mountain bighorn sheep: November 1 through April 15
- Desert bighorn sheep: December 1 through April 15
- Mule deer: December 1 through April 30
- Elk: December 1 through April 30

On the lands described below: Big game severe winter range, winter concentration areas, and mule deer critical winter range as defined by CPW and managing agency wildlife biologist.

For the purpose of: Protecting winter range to reduce behavioral disruption of big game during the winter season, which can result in mortality to the species.

Justification: In order to reduce behavioral disruption during parturition and early young-rearing period.

Exceptions, modifications, and waivers would be considered for BLM leases.

On the lands described below:

EXHIBIT 3.11.1

Lease Number: <LEASE_NUMBER>

CONTROLLED SURFACE USE

Gunnison Prairie Dog

Surface occupancy or use is subject to the following special operating constraints: A survey of the lease area may be required to determine occupation of Gunnison prairie dog. Development of lease parcels that include prairie dog towns would require one or more of the following conservation measures prior to and during lease development:

- Develop a surface use plan of operations with the managing agencies that integrates and coordinates long-term lease development with measures necessary to minimize adverse impacts to prairie dog populations or their habitat.
- Abide by special daily and seasonal restrictions on construction, drilling, product transport, and service activities during the reproductive period (March 1–June 15).
- Incorporate special modifications to facility siting, design, construction, and operation, or NSO to minimize involvement of prairie dog burrow systems.

For the purpose of: Maintaining the integrity and extent of prairie dog complexes, and protecting high value wildlife habitat and recreation values associated with designated state wildlife areas.

Justification: Gunnison prairie dog is a designated sensitive species by the managing agencies and a keystone species for the ecosystem.

Exceptions, modifications, and waivers would be considered for BLM leases.

On the lands described below:

EXHIBIT 3.13.1

Lease Number: <LEASE_NUMBER>

NO SURFACE OCCUPANCY

State Wildlife Areas -

No surface occupancy is allowed on the lands described below: In state wildlife areas that have federal mineral estate underlying them. NSO and other mitigations would be determined by the managing Agencies in cooperation with CPW. For Perins Peak state wildlife area, this NSO includes the adjacent BLM lands that in combination comprise the Perins Peak Habitat Management Area.

For the purpose of: Protect high value wildlife habitat and recreation values associated with designated state wildlife areas.

Justification: The State of Colorado is a partner in natural resource management. Many state wildlife areas were purchased and established utilizing federal dollars to accomplish common management objectives complementing similar managements on the planning area.

Exceptions, modifications, and waivers would be considered for BLM leases.

On the lands described below:

EXHIBIT 4.9.1

Lease Number: <LEASE_NUMBER>

NO SURFACE OCCUPANCY

High Scenic Integrity Objective and Visual Resource Management Class II Areas - *No surface occupancy or use is allowed on the lands described below:* Foreground areas with a high scenic integrity objective or Visual Resource Management (VRM) Class II. (Note: very high scenic integrity objective and VRM Class I are all within wilderness, recommended wilderness, and wilderness study areas and are therefore not available for lease.)

For the purpose of: Protecting the scenic values of these areas.

Justification: These are the areas where viewers have an expectation for high scenic integrity within the foreground viewshed, and where the landscape is to be managed for an overall high scenic integrity objective. Oil and gas exploration and production is typically incompatible with the maintenance of a high scenic integrity and generally inconsistent with protection of valued cultural viewsheds. Oil and gas development introduces industrial facilities and ground disturbance which contrast with natural features.

Exceptions, modifications, and waivers would be considered for BLM leases.

On the lands described below:

Lease Number: <LEASE_NUMBER>

LEASE NOTICE

The lessee is hereby notified that prior to any surface disturbing activities, an inventory of paleontological resources (fossils) may be required. Mitigation may be required such as monitoring in any area of PFYC 4 or 5 and also upon the discovery of any vertebrate fossil or other scientifically important paleontological resource. Mitigation of scientifically important paleontological resources may include avoidance, monitoring, collection, excavation, or sampling. Mitigation of discovered scientifically important paleontological resources may require the relocation of the surface disturbance activity over 200 meters. Inventory and any subsequent mitigation shall be conducted by a BLM permitted paleontologist.

On the lands described below:

Lease Number: <LEASE_NUMBER>

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:

Lease Number: <LEASE_NUMBER>

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:

Lease Number: <LEASE_NUMBER>

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: