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Draft Environmental Assessment
DOI-BLM-UT-Y010-2015-0186-EA

February 2016 Competitive Oil and Gas Lease Sale

August 2015

Location: Canyon Country District

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1.0 PURPOSE & NEED

1.1 Introduction

The Bureau of Land Management (BLM) has prepared this environmental assessment (EA) to disclose and analyze the environmental consequences of the sale of 13 parcels for the February 2016 Competitive Oil and Gas Lease Sale. The EA is an analysis of potential impacts that could result from the implementation of a Proposed Action or alternatives to the Proposed Action. The EA assists the BLM in project planning and ensuring compliance with the National Environmental Policy Act (NEPA), and in making a determination as to whether any significant impacts could result from the analyzed actions. Significance is defined by NEPA and is found in regulation 40 Code of Federal Regulations (CFR) 1508.27. An EA provides evidence for determining whether to prepare an Environmental Impact Statement (EIS) or a statement of Finding of No Significant Impact (FONSI). A FONSI statement, if applicable for this EA, would document the reasons why implementation of the selected alternative would not result in significant environmental impacts (effects) beyond those already addressed in the and final environmental impact statements for the the the Moab Field Office Resource Management Plan (BLM, 2008b, and the Monticello Field Office Resource Management Plan (BLM 2008d). If the decision maker determines that this project has significant impacts following the analysis in the EA, then an EIS would be prepared for the project. If not, a Decision Record (DR) may be signed for the EA approving the selected alternative, whether the Proposed Action or another alternative.

1.2 Background

The BLM policy is to make mineral resources available for use and to encourage their orderly development to meet national, regional, and local needs. This policy is based in various laws, including the Mineral Leasing Act (MLA) of 1920 and the Federal Land Policy and Management Act (FLPMA) of 1976. The Federal Onshore Oil and Gas Leasing Reform Act (FOOGLRA) of 1987 (Sec. 5102(a)(b)(1)(A)) directs the BLM to conduct quarterly oil and gas lease sales in each state whenever eligible lands are available for leasing.

Expressions of Interest (EOI) to nominate parcels for leasing by the BLM are submitted by the public. From these EOIs, the BLM Utah State Office (UTSO) forwards a preliminary parcel list to the Canyon Country District Office (CCDO), consisting of the Moab Field Office (MbFO) and the Monticello Field Office (MtFO), for review and processing. Each field office determines whether or not the existing analyses in the applicable land use plan EISs provide an adequate basis for leasing recommendations or that additional NEPA analysis is needed before making a leasing recommendation. In most instances an EA will be initiated for the parcels within the district or field office to

meet the requirements of Washington Office (WO) Instruction Memorandum (IM) 2010-117, *Oil and Gas Leasing Reform – Land Use Planning and Lease Parcel Reviews*. After a draft of the EA is complete, it and an unsigned FONSI, if appropriate, are made available to the public along with the proposed parcels list and applicable lease stipulations/notices for a 30-day public comment period on the BLM ePlanning NEPA Register (https://www.blm.gov/epl-front-office/eplanning). After the end of the public comment period, the BLM reviews the comments and, where appropriate, provides additional analysis and incorporates changes to the document and/or lease parcel list. A copy of the EA and unsigned FONSI, if appropriate, and the final parcel list with lease stipulations and notices is made available to the public through a Notice of Competitive Lease Sale which starts the protest period (30 days). The protest period ends 60 days before the scheduled lease sale. The UTSO resolves any protests within the 60 days between the end of the protest period and the lease sale, when possible. If any changes are needed to the parcels or lease stipulations/notices, an erratum is posted to the BLM Utah website to notify the public of the change.

The parcels would be available for sale at an oral auction to be held at the UTSO, which is tentatively scheduled for February 16, 2016. If a parcel of land is not purchased at the lease sale auction through competitive bidding, it may still be leased non-competitively during the two-year period following the lease sale auction.

Federal oil and gas leases are issued for a ten year primary term, after which the lease expires unless oil or gas is produced in paying quantities. A producing lease can be held indefinitely by economic production.

A lessee must submit an Application for Permit to Drill (APD) (Form 3160-3) to the BLM for approval and must possess an approved APD before any surface disturbances in preparation for drilling may occur on a lease. Any stipulations attached to the standard lease form must be complied with before an APD may be approved. Following BLM approval of an APD, a lessee may produce oil and gas in a manner approved by BLM in the APD or in subsequent sundry notices. The operator must notify the appropriate authorized officer before starting any surface disturbing activity approved in the APD.

The UTSO preliminary parcel list contained 13 parcels encompassing approximately 11,007 acres within the CCDO. As determined through the CCDO interdisciplinary parcel review (IDPR) team initial screening process for the preliminary parcels, six parcels consisting of approximately 2,885.78 acres are recommended for deferral. The reasons for deferral are:

1. Three parcels, UT0216-026, UT0216-037 and UT0216-038, are split-estate with the surface owned by the Navajo Nation and administered by the Bureau of Indian Affairs (BIA). In a letter received on August 7, 2015, the BIA and the Navajo Nation recommended that parcels UT0216-026, UT0216-037 and UT0216-038 be excluded (deferred) from the February 2016 lease sale.
2. Two parcels, UT0216-065 and UT0216-066, are located in Gunnison sage-grouse habitat. BLM WO IM 2014-100 requires that BLM defer leasing in occupied habitat for Gunnison sage-grouse in order to avoid affecting future management

decisions for the species. The possible listing of the Gunnison sage-grouse by the U. S. Fish and Wildlife Service (USFWS) makes it unclear if the MtFO RMP stipulations would be adequate for protection of the species and its habitat should listing occur. In accordance with Oil and Gas Leasing Reform (WO IM 2010-117) it is believed that additional resource information is required prior to leasing in areas of Gunnison sage-grouse habitat and this information is not anticipated to be available until a decision is made by the USFWS regarding the potential listing of the species.

3. One parcel, UT0216-070, is located within the boundary of the San Juan Master Leasing Plan (MLP); therefore, parcel 070 is recommended for deferral. In accordance with current BLM leasing policy (WO IM No. 2010-117) and the *BLM Utah State Office Oil and Gas Leasing Reform Implementation Pla*n where MLPs are considered and determined to be necessary at this time, parcel-specific NEPA analysis will not be undertaken to consider EOIs and other proposals to lease

As a result of the initial screening process, all parcels within the MtFO are recommended for deferral. All remaining parcels recommended for lease sale are located within the MbFO.

This EA has been prepared to disclose and analyze the environmental consequences of leasing seven parcels (approximately 8,121.22 acres) located in the CCDO, MbFO. These parcels would be offered at a competitive oil and gas lease sale auction tentatively scheduled to occur on February 16, 2016. **Appendix A** contains the February 2016 lease sale parcel list and the applicable lease stipulations and lease notices for the parcels. **Appendix B** contains maps of the subject parcels. **Appendix C** contains the deferred parcel list.

The EA is being used to determine the necessary administrative actions, stipulations, lease notices, special conditions, or restrictions that would be made a part of an actual lease at the time of issuance. Continued interdisciplinary support and consideration would be required to ensure the on the ground implementation of planning objectives, including the proper implementation of stipulations, lease notices, and best management practices (BMPs) through the APD process.

1.3 Need for the Proposed Action

The parcels proposed for leasing were nominated by the public. The need for the lease sale is to respond to the nomination requests and meet the BLM's responsibilities under the MLA, FLPMA, FOOGLRA, as well as other applicable laws, regulations and policies. Offering parcels for competitive oil and gas leasing provides for the orderly development of fluid mineral resources under BLM's jurisdiction in a manner consistent with multiple use management and environmental consideration for the resources that may be present. The sale of oil and gas leases is needed to meet the energy needs of the United States.

Utah is a major source of natural gas for heating and electrical energy production in the lower 48 states. The continued sale and issuance of lease parcels facilitates exploration

and production as oil and gas companies seek new areas for production or attempt to develop previously inaccessible or uneconomical reserves.

1.4 Purpose for the Proposed Action

The purpose for analyzing the subject parcels for potential leasing is to ensure that adequate provisions are included in the lease terms and lease stipulations and notices to protect public health and safety, and assure full compliance with the objectives of NEPA and other federal environmental laws and regulations designed to protect the environment and mandating multiple use of public lands. The BLM is required by law to review areas that have been nominated. Oil and gas leasing is a principal use of the public lands as identified in Section 102(a)(12), 103(1) of FLPMA, and it is conducted to meet requirements of the MLA, the Mining and Minerals Policy Act of 1970, and the FOOGLRA. Leases would be issued pursuant to 43 CFR 3100.

1.5 Conformance with BLM Land Use Plans

The Proposed Action alternative (See **Section 2.2** below) is in conformance with the MbFO Record of Decision and Resource Management Plan (ROD/RMP) (BLM, 2008a) because it is specifically provided for in the planning decisions. The No Action Alternative is not in conformance with the RMP because the lease parcels are in areas designated by the RMP as available for leasing subject to standard terms and conditions, controlled surface use, timing limitations, or no surface occupancy. The Proposed Action conforms to the following RMP decisions (Note: The appendices referenced in the following decisions are found in the RMP and are not the appendices found directly in this document).

1.5.1 Moab RMP Decisions

MIN-4 (page 73)

Leasable Minerals: Split-estate lands (private surface/Federal minerals) and lands administered by other Federal agencies are not managed by the BLM. The lands include about 29,678 acres of split-estate lands and the lands administered by the Manti-La Sal National Forest (141,241 acres). The surface owner or surface management agency (SMA) manages the surface. BLM administers the operational aspects of mineral leases. On lands administered by other Federal agencies, lease stipulations will include those required by the SMA. On 20,061 acres of split estate lands, the BLM will apply the same lease stipulations as those applied to surrounding lands with Federal surface. BLM will close or impose a no surface occupancy stipulation on 9,617 acres of split-estate lands (see Appendix A). Mitigation measures to protect other resource values will be developed during the appropriate site-specific environmental analysis and will be attached as conditions of approval to permits in consultation with the surface owner or SMA.

MIN-12 (page 75)

Leasable Minerals: The plan will recognize and be consistent with the National Energy Policy Act and related BLM policy by adopting the following objectives: recognizing the need for diversity in obtaining energy supplies; encouraging conservation of sensitive resource values; improving energy distribution opportunities.

MIN-13 (page 75)

Leasable Minerals: In accordance with an Utah Division of Environmental Quality-Division of Air Quality letter dated June 6, 2008 (See [RMP] Appendix J, Moab) requesting implementation of interim nitrogen oxide control measures for compressor engines; BLM will require the following as a Lease Stipulation and a Condition of Approval for Applications for Permit to Drill: (1) All new and replacement internal combustion oil and gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 grams of NOx per horsepower-hour. This requirement does not apply to oil and gas field engines of less than or equal to 40 design-rated horsepower; (2) All new and replacement internal combustion oil and gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 grams of NOx per horsepower-hour.

MIN-14 (page 75)

Leasable Minerals: Lease stipulations have been developed to mitigate the impacts of oil and gas activity (see Appendix A and Map 12). The stipulations adhere to the Uniform Format prepared by the Rocky Mountain Regional Coordinating Committee in March 1989. Stipulations reflect the minimum requirements necessary to accomplish the desired resource protection and contain provisions/criteria to allow for exception, waiver and modification if warranted. Stipulations would be determined unnecessary if duplicative of Section 6 of the Standard Lease Terms. The BLM has identified Land-Use Plan leasing allocations for all lands within the Moab Field Office. In addition, the Approved RMP describes specific lease stipulations and program related BMPs (both found in Appendix A: Stipulations and Environmental Best Practices Application to Oil and Gas Leasing and Other Surface Disturbing Activities) that apply to a variety of different resources.

MIN-19 (page76)

Leasable Minerals: Oil and Gas Leasing stipulations (see Map 12):

- Approximately 427,273 acres will be open to oil and gas leasing, subject to standard terms and conditions.
- Approximately 806,994 acres will be open to oil and gas leasing subject to controlled surface use (CSU) and timing limitation (TL) stipulations.
- Approximately 217,480 acres will be open to oil and gas leasing subject to a no surface occupancy (NSO) stipulation.
- Approximately 370,250 acres will be closed to oil and gas leasing, of which 25,306 acres are outside Wilderness or Wilderness Study Areas. About 25,306 acres are closed to oil and gas leasing because it is not reasonable to apply an NSO stipulation. This includes areas where the oil and gas resources are physically inaccessible by current directional drilling technology from outside the boundaries of the NSO areas. (These lands closed to oil and gas leasing will be managed to preclude all other surface-disturbing activities.) Should technology

change, a Plan Amendment will be initiated to place these 25,306 acres under an NSO stipulation for oil and gas leasing.

- In addition, 8,078 acres of Federal minerals (split-estate lands) will be managed as open to oil and gas leasing with an NSO stipulation, and 1,539 acres of Federal minerals (split-estate lands) will be closed to oil and gas leasing (see Appendix A).

The Proposed Action is consistent with the MbFO RMP and its leasable mineral decisions and the corresponding goals and objectives related to the management of the following resources, including but not limited to: air quality, cultural resources, recreation, riparian, soils, water, vegetation, fish & wildlife, BLM natural areas, lands with wilderness characteristics, and Areas of Critical Environmental Concern (ACEC).

Standard lease terms provide for reasonable measures to minimize adverse impacts to specific resource values, land uses, or users (Standard Lease Terms are contained in Form 3100-11, Offer to Lease and Lease for Oil and Gas, U.S. Department of the Interior, BLM, June 1988 or later edition). Although once the lease has been issued, the lessee has the right to use as much of the leased land as necessary to explore for, drill for, extract, remove, and dispose of oil and gas deposits located under the leased lands unless it is leased under an NSO stipulation. Operations must be conducted in a manner that avoids unnecessary or undue degradation of the environment and minimizes adverse impacts to the land, air, water, cultural, biological, and visual elements of the environment, as well as other land uses or users. Compliance with applicable statutes (laws) is included in the standard lease terms and would apply to all lands and operations that are part of all of the alternatives.

Nondiscretionary actions include the BLM's requirements under federal environmental protection laws, such as the Clean Water Act, Clean Air Act, Endangered Species Act (ESA), National Historic Preservation Act (NHPA), and FLPMA, which are applicable to all actions on federal lands even though they are not reflected in the oil and gas stipulations in the RMP and would be applied to all potential leases regardless of their category. Also included in all leases are the mandatory stipulations for the statutory protection of cultural resources (BLM WO IM-2005-03, Cultural Resources and Tribal Consultation for Fluid Minerals Leasing); and threatened or endangered species (BLM WO IM-2002-174, Endangered Species Act Section 7 Consultation).

This EA is tiered to and includes by reference the environmental impact analysis contained in the MbFO Proposed Resource Management Plan and Final Environmental Impact Statement (PRMP) (BLM, 2008b).

1.6 Relationship to Statutes, Regulations, or Other Plans

The Proposed Action is compliant with federal laws and regulations, Executive Orders, and Department of Interior and the BLM policies; and is consistent, to the maximum extent possible, with state, local and county laws, ordinances and plans, including the following:

- Federal Land Policy and Management Act (1976) as amended

- Taylor Grazing Act (1934) as amended
- Utah Standards and Guidelines for Rangeland Health (1997)
- BLM Utah Riparian Management Policy (2005)
- National Historic Preservation Act (1966) as amended
- Bald and Golden Eagle Protection Act (1962)
- Endangered Species Act (1973) as amended
- BLM Manual 6840-Special Status Species Management
- Migratory Bird Treaty Act (1918)
- Utah Partners in Flight Avian Conservation Strategy Version 2.0 (Parrish et al., 2002)
- Birds of Conservation Concern 2002 (USFWS, 2008)
- National Sage-grouse Habitat Conservation Strategy (Department of Interior, 2004)
- Strategic Management Plan for Sage-grouse 2002 (UDWR, 2002)
- Western Association of Fish and Wildlife Agencies, Conservation Assessment of Greater Sage-grouse and Sagebrush Habitats (Connelly et al. 2004)
- Executive Order 13186: Responsibilities of Federal Agencies to Protect Migratory Birds
- MOU between the BLM and USFWS to Promote the Conservation and Management of Migratory Birds (April 2010)
- Utah Supplemental Planning Guidance: Raptor Best Management Practices (BLM UTSO IM 2006-096)
- BLM Vegetation Treatments Using Herbicides Final Programmatic EIS Record of Decision (BLM, 2007)
- Final Vegetation Treatments on BLM Lands in 17 Western States Programmatic Environmental Report. (BLM, 2007b)
- Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Impact Statement (BLM, 2007)
- San Juan County Master Plan, as revised
- Cane Creek Modeling Report (Golder, 2010)
- MOU Among the USDA, USDI and EPA Regarding Air Quality Analysis and Mitigation for Federal Oil and Gas Decisions Through the NEPA Process (2011)

- Oil and Gas Leasing Reform – Land Use Planning and Lease Parcel Reviews (BLM WO IM 2010-117)
- National Trails System Act of 1968

These documents and their associated analysis and/or information are hereby incorporated by reference, based on their use and consideration by various authors of this EA. The attached interdisciplinary (ID) team checklist, **Appendix D**, was developed after consideration of these documents and their contents. Each of these documents is available for review upon request from the MbFO or the MtFO. Utah's Standards for Rangeland Health address upland soils, riparian/wetlands, desired and native species and water quality. These resources are either analyzed later in this document or, if not impacted, are also listed in **Appendix D**.

1.7 Identification of Issues

The Proposed Action was reviewed by the IDPR team composed of resource specialists from the MtFO and the MbFO. Issuing oil and gas leases for the parcels offered at a lease sale would have no environmental consequences as the act of leasing is an administrative action only with no associated on-the-ground activity. The determination and rationale for determination in the ID team checklist relate only to the part of the Proposed Action regarding the construction, drilling, completion, testing, production and reclamation of oil and gas wells as described in the Proposed Action and subject to lease stipulations and lease notices required by the MbFO RMP.

The IDPR teams identified resources in the parcel areas which might be affected and considered potential impacts using personal knowledge of the CCDO area, current office records, geographic information system data, and field visits to the subject parcels by members of the MbFO and MtFO IDPR teams.

On June 9 and 10, 2015, the MbFO specialists conducted field visits to parcels UT0216-001 through UT0216-005, and parcels UT0216-063 and UT0216-064. The MtFO specialists conducted site visits to parcels UT0216-026, UT0216-037, and UT0216-038 on June 25, 2015. Based on observations during these visits, the ground conditions have not changed since the RMP; therefore, the stipulations in the RMP are valid. Field reports and photos of the site visits are available and on file in the MbFO.

As previously stated, all parcels within the MtFO are recommended for deferral; therefore, there would be no resources or issues with potential for relevant impacts. Internal scoping by the MbFO IDPR team identified the following resources as present with potential for relevant impact, requiring detailed analysis in the EA:

- Air Quality
- Lands with Wilderness Character
- Migratory Birds including Raptors

All other resources were considered but eliminated from further analysis by resource specialist's determinations of "not present in the area" or "present, but not affected to a degree that detailed analysis is required." Resource issues were eliminated from analysis

because they were either not applicable to the lands considered in the Proposed Action or the reviewing specialists did not consider the Proposed Action to represent a potential impact to these issues. These determinations were based upon knowing that the parcels would be subject to applicable leasing protective measures provided through the standard lease terms, the MbFO RMP, standard operating procedures required by regulation, and BMPs typically contained in an APD or attached to an approved APD as conditions of approval (COAs). The ID team checklist with the determinations and rationales are contained in **Appendix D**.

On May 21, 2015, the UTSO sent notification to the U. S. Forest Service, USFWS, National Park Service (NPS), BIA – Navajo Regional Office, State of Utah Public Lands Policy Coordination Office, State of Utah Institutional Trust Lands, and Utah Division of Wildlife to notify them of the pending lease sale and to solicit their comments and concerns.

Public notification was initiated by entering the project information on the BLM ePlanning NEPA Register (https://www.blm.gov/epl-front-office/eplanning) on May 28, 2015. Additional information for the public is maintained on the Utah BLM Oil and Gas Leasing Webpage (http://www.blm.gov/ut/st/en/prog/energy/oil_and_gas/oil_and_gas_

lease.html).

The BLM also submitted a press release to the Moab *Times Independent* and the Monticello *San Juan Record* newspapers, which were published on June 4, 2015 and June 3, 2015, respectively, to notify the public of a 30-day scoping period for the EA. The public scoping period ended on June 27, 2015.

On May 22, 2015, letters were sent to the surface owners of the split estate parcels to solicit their comments and concerns about the pending lease sale.

As a result of this coordination and scoping to solicit issues and concerns, comments were received from agencies, groups, and individuals. The commenters raised the following resource issues of concern:

- Air quality
- Cultural resources
- Surface water quality
- Lands with wilderness characteristics
- Gunnison sage-grouse and proposed critical habitat
- Wildlife resources
- NEPA process
- Policy requirements (WO IM 2010-117) for the BLM's oil and gas leasing process.

Refer to **Appendix E** for comments submitted from stakeholders. Refer to **Appendix F**, Public Participation for a comments/issues response table. All of the issues raised by the public were considered during the internal IDPR team review. The Utah Division of Wildlife Resources (UDWR) provided recommendations regarding wildlife species and habitat and resulted in the addition of lease notices to multiple parcels. Scoping

comments were considered by resource specialists when making their impact determination for the ID team checklist. No comments identified an alternative other than the Proposed Action or no action.

1.8 Summary

This chapter has presented the purpose and need of the proposed project, as well as the relevant issues, i.e., those elements of the human environment that could be affected by the implementation of the proposed project. In order to meet the purpose and need of the proposed project in a way that resolves the issues, the BLM has considered and/or developed a range of action alternatives. These alternatives are presented in **Chapter 2**. The potential environmental impacts or consequences resulting from the implementation of each alternative considered in detail are analyzed in **Chapter 4** for each of the identified issues.

2.0 DESCRIPTION OF ALTERNATIVES, INCLUDING PROPOSED ACTION

2.1 Introduction

This EA focuses on the Proposed Action and No Action Alternative. Other alternatives were not considered because the issues identified during scoping did not indicate a need for additional alternatives or mitigation beyond those contained in the Proposed Action.

2.2 Alternative A – Proposed Action

Thirteen (13) lease parcels (approximately 11,007 acres) were originally included on the preliminary list of parcels proposed for inclusion in the February 2016 Competitive Oil and Gas Lease Sale. Under the Proposed Action (Alternative A), seven (7) parcels containing approximately 8,121.22 acres would be offered for lease in February 2016. Six (6) parcels totaling approximately 2,885.78 acres are recommended for deferral. The reasons for deferral are:

- Three parcels, UT0216-026, UT0216-037 and UT0216-038, are split-estate with the surface owned by the Navajo Nation and administered by the BIA. In a letter received on August 7, 2015, the BIA and the Navajo Nation recommended that parcels UT0216-026, UT0216-037 and UT0216-038 be excluded (deferred) from the February 2016 lease sale.
- Two parcels, UT0216-065 and UT0216-066, occur within USFWS proposed Gunnison sage-grouse habitat.
- One parcel, UT0216-070, is located within the boundary of the San Juan MLP.

Refer to **Appendix C** for a listing with legal descriptions of the location of the parcels recommended for deferral.

The following tables depict the acreage to be offered and the acreage recommended for deferral at the February 2016 lease sale.

Table 2-1: Canyon Country District Summary

Office	Total Parcel Acreage	Acreage Offered	Acreage Deferred
Monticello FO	2,885.78	0	2,885.78
Moab FO	8,121.22	8,121.22	0
Canyon Country District Total	**13 parcels for 11,007.00 acres**	**7 parcels for 8,121.22 acres**	**6 parcels for 2,885.78 acres**

Table 2-2: Moab Field Office Detail

Parcel #	Total Acreage	Acreage Offered	Acreage Deferred	Deferral Reason
001	271.20	271.20	0	

Parcel #	Total Acreage	Acreage Offered	Acreage Deferred	Deferral Reason
002	2,161.48	2,161.48	0	
003	1,400.00	1,400.00	0	
004	799.83	799.83	0	
005	680.00	680.00	0	
063	1,280.00	1,280.00	0	
064	1,528.71	1,528.71	0	
Totals	**7 parcels for 8,121.22 acres**	**7 parcels for 8,121.22 acres**	**None**	

Table 2-3: Monticello Field Office Detail

Parcel #	Total Acreage	Acreage Offered	Acreage Deferred	Deferral Reason
026	356.52	0	356.52	BIA/Navajo Nation Surface Ownership
037	640.00	0	640.00	BIA/Navajo Nation Surface Ownership
038	799.31	0	799.31	BIA/Navajo Nation Surface Ownership
065	671.33	0	671.33	Gunnison sage-grouse habitat
066	228.62	0	228.62	Gunnison sage-grouse habitat
070	190.00	0	190.00	Within the San Juan MLP Boundary
Totals	**6 parcels for 2,885.78 acres**	**None**	**6 parcels for 2,885.78 acres**	

The nominated parcels would be offered with stipulations and lease notices as specified in the MbFO RMP (BLM, 2008a) and identified by the resource specialists in the Interdisciplinary Checklist as applicable to each specific parcel, or as developed through this EA analysis. Legal descriptions of and stipulations and lease notices for each nominated parcel can be found in **Appendix A** and maps of the nominated parcels can be found in **Appendix B**.

Leasing is an administrative action that affects economic conditions but does not directly cause environmental consequences. However, leasing is considered to be an irretrievable commitment of resources because the BLM generally cannot deny all surface use of a lease unless the lease is issued with a NSO stipulation. Potential oil and gas exploration and production activities, committed to in a lease sale, could impact other resources and

uses in the planning area. Direct, indirect, or cumulative effects to resources and uses could result from as yet undetermined and uncertain future levels of lease exploration or development.

Standard lease terms would be attached to all issued leases. These terms provide for reasonable measures to minimize adverse impacts to specific resource values, land uses, or users (Standard Lease Terms are contained in Form 3100-11, Offer to Lease and Lease for Oil and Gas, U.S. Department of the Interior, BLM, June 1988 or later edition). Once the lease has been issued, the lessee has the right to use as much of the leased land as necessary to explore for, drill for, extract, remove, and dispose of oil and gas deposits located under the leased lands subject to lease stipulations; however, operations must be conducted in a manner that avoids unnecessary or undue degradation of the environment and minimizes adverse impacts to the land, air, water, cultural, biological, and visual elements of the environment, as well as other land uses or users.

Compliance with applicable statutes (laws) is included in the standard lease terms and would apply to all lands and operations that are part of all of the alternatives. Nondiscretionary actions include the BLM's requirements under federal environmental protection laws, such as the Clean Water Act, Clean Air Act, ESA, NHPA, and FLPMA, which are applicable to all actions on federal lands even though they are not reflected in the oil and gas stipulations in the field office RMP and would be applied to all potential leases regardless of their category. Also included in all leases are mandatory stipulations for the statutory protection of cultural resources (WO IM-2005-03, Cultural Resources and Tribal Consultation for Fluid Minerals Leasing); and threatened or endangered species (WO IM-2002-174, Endangered Species Act Section 7 Consultation).

BLM would also encourage industry to consider participating in EPA's Natural Gas STAR program. The program is a flexible, voluntary partnership between EPA and the oil and natural gas industry wherein EPA works with companies that produce, process, transmit and distribute natural gas to identify and promote the implementation of cost-effective technologies and practices to reduce emissions of methane, a greenhouse gas.

All operations would be conducted in accordance with standard operating procedures required by regulation (43 CFR 3000 and 3160) and the "Gold Book", *Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development*. The Gold Book was developed to assist operators by providing information for conducting environmentally responsible oil and gas operations on federal lands. The Gold Book provides operators with a combination of guidance and standards for ensuring compliance with agency policies and operating requirements, such as those found at 43 CFR 3000 and 36 CFR 228 Subpart E; Onshore Oil and Gas Orders (Onshore Orders); and Notices to Lessees. Included in the Gold Book are environmental BMPs, measures designed to provide for safe and efficient operations while minimizing undesirable impacts to the environment.

Reasonably Foreseeable Development Scenario for Oil and Gas Resources

At this time it is unknown when, where, or if future oil and gas exploration and development might be proposed on any leased parcel. Should a lease be issued, site

specific analysis of individual wells, roads, pipelines and/or other facilities would occur when a lease holder submits an APD. For the purposes of this analysis, the BLM assumed oil and gas development would continue to occur as predicted in the Moab planning area "Reasonably Foreseeable Development Scenario (RFD) for Oil and Gas" (McClure, Nothrup, Fouts, 2005); and oil and gas development would occur proportionate to acres of oil and gas leases authorized. The acreage of the February 2016 oil and gas lease parcels was compared to existing authorized oil and gas leases in order to estimate the percentage attributable to the February 2016 lease parcels. These figures are subsequently described.

Moab Field Office Area

The MbFO RFD was prepared for the Moab planning area to predict the level of oil and gas development over the next 15 years for the purpose of analyzing impacts from oil and gas development to other resources in the MbFO PRMP. The RFD predicted:

- Assumptions:
  - BLM lands in the RFD include BLM surface and split estate (private, State of Utah) lands with federal oil and gas mineral estate.
  - The RFD projections are based in part on past leasing and drilling activity.
  - Drilling activity will occur on lands with authorized oil and gas leases.
  - Drilling activity and surface disturbance from the Proposed Action will be proportionate based on the acreage of the Proposed Action and current authorized lease acreage.
  - Drilling activity and surface disturbance resulting from the February 2016 lease sale would consist of oil and gas exploration and development that would occur over a 10 year period (period of a lease not held by production).
- BLM lands available for oil and gas leasing and development are 68% (MbFO RFD, pg. 3) of the total acreage available to oil and gas leasing and development in the RFD area.
- Over the next 15 years, 600 wells would be drilled on all lands within the Moab planning area (MbFO RFD modification).
- Sixty eight percent of 600 wells would be 408 wells drilled on BLM lands over the next 15 years.
- Each well and associated roads and pipelines would result in approximately 15 acres of surface disturbance (MbFO RFD, pg. 1).
- Over the next 15 years, new oil and gas exploration and development activities would cause surface disturbance of 6,120 acres on BLM lands (408 wells × 15 acres/well = 6,120 acres).
- Annual surface disturbance = 408 acres (6,120 acres ÷ 15 years = 408 acres surface disturbance per year).

Currently in the MbFO:

- There are approximately 653,753 acres under authorized oil and gas lease at the present time (June 2015).
- The MbFO February 2016 lease parcels total approximately 8,121.22 acres.
- If all offered parcels were sold and leases issued, the February 2016 leases would amount to 1% of the acreage of the total leased area in the MbFO (653,753 + 8,121 = 661,874; 8,121 ÷ 661,874 = 1.22 or ≈1%).
- Predicted surface disturbance from the February 2016 leases is approximately 40 acres for the 10 year period (408 acres × 1% ≈ 4 acres ×10 years = 40 acres of surface disturbance over 10 years).
- Predicted wells from the February 2016 lease sale is approximately 3 wells for the 10 year period (408 wells ÷ 15 years = 27.2 wells per year × 1% ≈ 0.272 wells per year × 10 years = 2.72 or ≈ 3 wells for the 10 year period).

The 40 acres of surface disturbance estimated to result from exploration, development and production activities resulting from the proposed lease sale amounts to 0.49% of the acreage included in the lease sale (40 acres of surface disturbance ÷ 8,121 acres in lease sale = 0.49%).

The following sections provide a general discussion of possible post-leasing RFD activities. All of these activities would require additional NEPA review.

2.2.1 Well Pad and Road Construction

Equipment for road and well pad construction would include dozers, scrapers, graders, and trackhoes/backhoes. Topsoil, to the extent available, would be salvaged from all disturbed areas and reserved for interim and final reclamation purposes. The size of a well pad would vary but would average approximately 350 feet by 350 feet plus additional area required for cut and fill slopes, stockpiles of topsoil and spoil, and equipment operation.

Depending on the locations of the proposed wells, it is anticipated that some new or upgraded access roads would be required to access well pads and maintain production facilities. Any new roads constructed for the purposes of oil and gas exploration drilling would be constructed in a manner that would minimize surface disturbance to that which is necessary to provide safe access. When drilling is successful and a well goes into production, the access road would be upgraded for year-round operation of the well and maintenance of the facilities. With few exceptions, the road would remain open to other land users. New roads or upgrades to existing roads would be constructed to the appropriate standard as required by BLM Manual 9113. Roads accessing oil and gas well locations are generally constructed to the "resource" road standard requiring a 14-foot driving width, a 35 to 45-foot construction disturbance width, properly drained and appropriately surfaced. The BLM may, at its discretion, adopt roads constructed for oil and gas exploration and development into its transportation plan. When a well is plugged

and abandoned, the access road would be reclaimed by the operator unless the BLM has included the road in its transportation plan.

2.2.2 Well Drilling and Completion Operations

Drilling would be accomplished by using a conventional rotary drilling rig. A drilling plan is included in every APD and is subject to review by a BLM engineer for compliance with Onshore Order No. 2, Drilling Operations. Onshore Order No. 2 includes requirements for the design of well casing, cementing and testing to insure the integrity of the well bore. After review, the engineer may determine that additional COAs are required to supplement the drilling plan. Transporting drilling equipment and materials to the well pad may require 10 to 40 truckloads. Additionally, six to 10 smaller vehicles would be used to transport drilling personnel and other support services. Drilling operations typically continue 24 hours a day.

Water trucks would be used daily to supply water during drilling and, if necessary, completion operations. Water to drill and complete a well would be hauled from a permitted source. A reserve pit may be constructed on the location to contain drill cuttings and produced fluids. Operators are, with increasing frequency, proposing closed loop drilling mud systems as a best management practice to eliminate the need for a reserve pit. Also, the BLM may require, through a condisiotn of approval applied to the APD, an operator to use a closed loop drilling system if analysis at the APD stage supports this. Drill cuttings would be contained on location during drilling operations, and depending on a variety of conditions including surface geology and drill fluid and drill cuttings composition; cutting would be disposed of on location as part of the interim reclamation program or would be transported to an approved disposal facility. Drilling mud could be recycled or hauled to an approved disposal facility. When drilling operations are complete the reserve pit would be fenced and netted to prevent birds and small animals from gaining access to and becoming trapped in the contents of the pit.

Hydraulic Fracturing

Hydraulic fracturing (HF) is a well stimulation technique used to increase oil and gas production from underground rock formations. As summarized below, HF technology is not used on all wells drilled in the CCDO. As a result, HF will be evaluated at the APD stage should the lease parcel be sold/issued, and a development proposal submitted. The following paragraphs provide a general discussion of the HF process that could potentially be implemented if development were to occur, including well construction information and general conditions encountered within the CCDO.

HF involves the injection of fluids through a wellbore under pressures great enough to fracture the oil and gas producing formations. The fluid is generally comprised of a liquid such as oil, carbon-dioxide or nitrogen, and proppant (commonly sand or ceramic beads), and a minor percentage of chemicals to give the fluid desirable flow characteristics, corrosion inhibition, etc. The proppant holds open the newly created fractures after the injection pressure is released. Oil and gas flow through the fractures and up the production well to the surface.

HF has been used by oil and natural gas producers since the late 1940s and, for the first 50 years, was mostly used in vertical wells in conventional formations. HF is still used in these settings, but the process has evolved. Technological developments (including horizontal drilling) have led to the use of HF in "unconventional" hydrocarbon formations that could not otherwise be profitably produced.

The use of horizontal drilling through unconventional reservoirs combined with high-volume water based multi-stage HF activities has led to an increase in oil and gas activity in several areas of the country which has, in turn, resulted in a dramatic increase in domestic oil and gas production nationally. However, along with the production increase, HF activities are suspected of causing contamination of fresh water by creating fluid communication between oil and gas reservoirs and aquifers. The EPA is currently conducting an assessment of HF on drinking water resources (http://cfpub.epa.gov/ncea/hfstudy/recordisplay.cfm?deid=244651).

There are presently no unconventional reservoirs in the CCDO that are being exploited using high-volume water based HF techniques.

Oil and Gas Fields

Oil and gas fields within the CCDO represent a variety of different geologic and production characteristics. These characteristics, specific to a given oil or gas field, influence how operators drill, complete, and produce wells in that field. Historically, most wells in the area have been vertically drilled, targeting "conventional" sandstone and carbonate (limestone or dolomite) formations. "Conventional" in this usage means geologic formations that possess porosity (i.e. space that oil and gas can occupy) and permeability (connected passages through which oil and gas can move). These characteristics are necessary for oil and gas to flow from the formation into a well bore in sufficient volume to be economically produced. HF has long been used to enhance porosity and permeability in conventional reservoirs, and its use is expected to continue with little change.

In the past 25 years, horizontal drilling into the "unconventional" clastic cycles of the Paradox Formation, such as the Cane Creek shale zone, have been actively pursued because of the potential to produce tremendous volumes of oil and associated gas. Although the Cane Creek zone is shale, and therefore an unconventional reservoir, operators rely on its natural fractures to provide the pathway allowing oil and gas to flow into the wellbore. Wells are typically drilled horizontally thorough the Cane Creek zone in a direction perpendicular to the expected orientation of the natural fractures. This increases the likelihood of the wellbore intercepting a fracture, or perhaps a series of fractures, which is essential to drilling a productive well.

Because of the reliance on natural fractures to convey oil and gas, and due to other geologic considerations, wells completed in the Cane Creek zone are rarely stimulated using HF. HF poses a risk of damaging the wells productivity by fracturing into the salts that bound the thin shale reservoir, and allowing salt to invade and seal natural fractures and the well. Consequently, HF activities would be limited in size and would be

performed only on wells with little production potential. Because HF has only recently been used in this type of reservoir, its effectiveness is not yet known.

Another unconventional reservoir that could be targeted in the future is the Mancos Shale which crops-out across the Cisco desert and extends under the Bookcliffs to the north. A few vertical wells within the CCDO produce oil from the Mancos Shale, but to date it has not been an attractive target locally. Nevertheless, it is a thick and laterally extensive carbonaceous shale that is similar in many ways to unconventional reservoirs that are being exploited elsewhere in the country.

Well Construction

Compliance with Onshore Order No. 2 assures that wells are appropriately designed and drilled. In addition, the State of Utah regulates drilling and operating practices under Utah Administrative Code R649-3 and HF activities are specifically addressed in R649-3-39. Well construction—casing and cement design—are tailored to the geologic characteristics of the area, and are designed to provide effective isolation of groundwater and mineral deposits, to control formation pressures that may be encountered, and to provide a single pathway for oil and gas to be produced to the surface.

To ensure the effective isolation of any potentially usable groundwater aquifer, a continuous string of steel pipe (or "casing") known as the "surface" casing is placed in the well, extending from the surface to at least 50 feet below the bottom of the aquifer. The entire length of that casing string is then cemented into place. The casing is then pressure tested to ensure there are no leaks before deeper drilling resumes.

After drilling deeper, a second string of casing known as "intermediate" casing could be run, if needed, to isolate water flows, high-pressure zones or lost circulation zones. Intermediate casing is typically cemented along its entire length, back to surface. Whether an intermediate casing string will be run is typically known and planned for prior to drilling.

Drilling then continues to the wells planned total depth. If indications of the wells productivity are positive, another string of steel "production" casing would be run and cemented into place. A sufficient volume of cement would be used to extend above any potentially productive zone to ensure that, following completion of the well, produced fluids can only flow into the cased well.

2.2.3 Production Operations

If wells were to go into production, facilities would typically be located on the well pad and would require no additional surface disturbance. The production facility for natural gas within the CCDO, typically consist of a well head, separator, dehydrator, meter house and sometimes tank storage with a truck load-out for produced water and a pump jack are necessary. A gas well location may also include a flare that would be used during well maintenance. A typical production facility for an oil well in the CCDO consists of a pump jack, storage tanks with truck load-out for oil and produced wate. In some instances where production from a well is both oil and gas, the facilities noted for both oil and gas wells would be located on the well pad.

All permanent surface structures would be painted a flat, non-reflective color (e.g., juniper green) specified by the BLM in order to blend with the colors of the surrounding natural environment. Facilities that are required to comply with the Occupational Safety and Health Act would be excluded from painting color requirements.

If oil is produced, the oil would be stored on location in tanks and transported off lease by truck to market. The volume of tanker truck traffic for oil production would be dependent upon production of the wells.

If natural gas is produced, construction of a gas sales pipeline would be necessary to transport the gas to market. An additional Sundry Notice, right of way and NEPA analysis would be completed, as needed, for any pipelines and/or other production facilities proposed upon public lands. BMPs, such as burying the pipeline or installing the pipeline within the road, would be considered at the time of the proposal.

Interim reclamation would be conducted on areas of the well pad, access roads, and pipelines not needed for production operations, as specified in the approved APD. The following sequence is typical of interim reclamation:

1. Pits used for drilling and completion activities would be properly closed. The well pad would be reduced to the minimum area necessary to safely conduct production operations. All other areas would be subject to interim reclamation which would include re-contouring, spreading of top soil, seedbed preparation, and seeding a seed mix appropriate to the site.
2. Access roads to the well pad would be reclaimed back to the driving surface.
3. Trees cleared during site preparation and large rocks excavated during construction would be scattered across the interim reclamation area.

The goal of interim reclamation is to achieve, to the extent possible, final reclamation standards including re-contouring to achieve the original contour and grade, or a contour that blends with the surrounding topography; and the establishment of a self-sustaining, vigorous native and/or desirable vegetation community with a density sufficient to provide a stable soil surface.

2.2.4 Produced Water Handling

Water is often associated with either produced oil or natural gas. Water is separated out of the production stream and, for a newly completed well, can be temporarily disposed of in the reserve pit for 90 days. Permanent disposal options include discharge to evaporation pits or underground injection. Disposal of produced water is regulated by Onshore Order No. 7.

2.2.5 Maintenance Operations

Traffic volumes during production would be dependent upon whether the wells produced natural gas and/or oil, and for the latter, the volume of oil produced. Well maintenance operations may include periodic use of work-over rigs and heavy trucks for hauling equipment to the producing well, and would include inspections of the well by a pumper on a regular basis or by remote sensing. The road and the well pad would be maintained for reasonable access and working conditions.

2.2.6 Plugging and Abandonment

If a well does not produce economic quantities of oil or gas, or when it is no longer commercially productive, the well would be plugged and abandoned in accordance with procedures contained in Onshore Order No. 2 and approved by a BLM Petroleum Engineer. All fluids in the reserve pit would be allowed to dry or removed and disposed of in accordance with applicable regulations. All equipment would be removed from the location and the well pad, access roads and pipelines would be subject to final reclamation. The following sequence is typical of final reclamation:

1. In accordance with Onshore Order No. 1, earthwork for interim and/or final reclamation, including pit closure, shall be completed within six months of well completion or abandonment.
2. All weather surfacing material would be removed.
3. As appropriate, top soil would be salvaged and reserved for final reclamation.
4. Re-contouring, spreading of salvaged top soil, seed bed preparation, seeding, and scattering trees (woody debris) would be conducted all areas disturbed by well pads, access roads, and pipelines.

The goal of final reclamation is to restore all areas of the well pad and access roads to the original land form or a land form the blends with the surrounding landform, and the establishment of a self-sustaining, vigorous, diverse native and/or desirable vegetation community with a density sufficient to provide a stable soil surface and inhibit non-native plant invasion (Gold Book, 4th Edition, pg.43).

2.3 Alternative B – No Action

Under the No Action Alternative, none of the nominated parcels would be offered for sale. No oil and gas exploration and development activity associated with the February 2016 lease sale would occur.

3.0 AFFECTED ENVIRONMENT

3.1 Introduction

This chapter presents the potentially affected existing environment (i.e., the physical, biological, social, and economic values and resources) of the impact area as identified in the ID team checklist found in **Appendix D** and presented in **Chapter 1** of this assessment. This chapter provides the baseline for comparison of impacts/consequences described in **Chapter 4**.

3.2 General Setting

Refer to **Appendix B** for maps showing the location of the parcels. The lease parcels include BLM-managed surface and minerals.

Parcels UT0216-001 through UT0216-005 are located within a 5-mile radius of Crescent Junction, Utah and the intersection of Interstate Highway 70 and State Highway 191. Elevation ranges from 4,500 feet to 6,000 feet. Vegetation in this area varies from salt desert shrub at the lower elevations and transitions to pinyon – juniper woodland at the higher elevations. The landscape varies from open, gently rolling terrain to very steep hillsides and vertical escarpments.

Parcels UT0216-063 and UT0216-064 are located in Lisbon Valley, approximately 15 miles southeast of La Sal, Utah and approximately 4 miles west of the Utah/Colorado border. Vegetation in this area varies from a desert shrub/grass to pinyon – juniper woodland. Elevation ranges from 6,200 feet to 6,800 feet. The landscape varies from open, gently rolling terrain to very steep hillsides and vertical escarpments.

3.3 Resources Brought Forward for Analysis

3.3.1 Air Quality

Air quality is affected by various natural and anthropogenic factors. Industrial sources such as power plants, mines, and oil and gas extraction activities in the Four Corners region contribute to local and regional air pollution. Urbanization and tourism create emissions that affect air quality over a wide area. Air pollutants generated by motor vehicles include tailpipe emissions and dust from travel over dry, unpaved road surfaces. Wildfires and controlled burns produce smoke that can affect communities and other sensitive areas. Strong winds, especially during the spring months can generate substantial amounts of windblown dust.

Air pollution emissions are characterized as point, area, or mobile. Point sources are large, stationary facilities such as power plants and manufacturing facilities and are accounted for on a facility by facility basis. Area sources are smaller stationary sources and, due to their greater number, are accounted for by classes. Production emissions from an oil and gas well and dust from construction of a well pad would be considered area source emissions. Mobile sources consist of non-stationary sources such as cars and trucks. Mobile emissions are further divided into on-road and off-road sources. Engine exhaust from truck traffic to and from oil and gas locations would be considered on-road

mobile emissions. Engine exhaust from drilling operations would be considered off road mobile emissions.

The Clean Air Act required the Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. The Utah Division of Air Quality (UDAQ) is responsible to ensure compliance with the NAAQS within the state of Utah. **Table 3-1** shows NAAQS for the EPA designated criteria pollutants (EPA 2008).

Table 3-1: National Ambient Air Quality Standards

Pollutant	Primary Standards Level	Primary Standards Averaging Time	Secondary Standards Level	Secondary Standards Averaging Time
Carbon Monoxide (CO)	9 ppm (10 mg/m^3)	8-hour (1)	None	None
Carbon Monoxide (CO)	35 ppm (40 mg/m^3)	1-hour (1)	None	None
Lead (Pb)	0.15 µg/m^3 (2)	Rolling 3-Month Average	Same as Primary	Same as Primary
Lead (Pb)	1.5 µg/m^3	Quarterly Average	Same as Primary	Same as Primary
Nitrogen Dioxide (NOx)	0.053 ppm (100 µg/m^3)	Annual (Arithmetic Mean)	Same as Primary	Same as Primary
Nitrogen Dioxide (NOx)	100 ppb	1-hour	Same as Primary	Same as Primary
Particulate Matter (PM_{10})	150 µg/m^3	24-hour (3)	Same as Primary	Same as Primary
Particulate Matter ($PM_{2.5}$)	15.0 µg/m^3	Annual (4)(Arithmetic Mean)	Same as Primary	Same as Primary
Particulate Matter ($PM_{2.5}$)	35 µg/m^3	24-hour (5)	Same as Primary	Same as Primary
Ozone (O_3)	0.075 ppm (2008 std)	8-hour (6)	Same as Primary	Same as Primary
Sulfur Dioxide (SO_2)	0.03 ppm	Annual (Arithmetic Mean)	0.5 ppm (1300 µg/m^3)	3-hour (1)
Sulfur Dioxide (SO_2)	0.14 ppm	24-hour (1)	0.5 ppm (1300 µg/m^3)	3-hour (1)
Sulfur Dioxide (SO_2)	75 ppb	1-hour (1)	None	None

Table Notes:

(1) Not to be exceeded more than once per year.
(2) Final rule signed October 15, 2008.
(3) Not to be exceeded more than once per year on average over 3 years.
(4) To attain this standard, the 3-year average of the weighted annual mean PM2.5 concentrations from single or multiple community-oriented monitors must not exceed 15.0 µg/m3.
(5) To attain this standard, the 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within an area must not exceed 35 µg/m3 (effective December 17, 2006).
(6) To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.075 ppm. (effective May 27, 2008).

Air Quality Related Value (AQRV) is a resource that may be affected by a change in air quality. Under the Clean Air Act, the Federal official with direct responsibility for management of Federal Class I parks and wilderness areas have an affirmative responsibility to protect the AQRV, including visibility, of such lands, and to consider whether a proposed major emitting facility will have an adverse impact on such values (U.S. Forest Service, 2010). As authorized under the Clean Air Act, AQRV applies only to major sources of pollutants. An oil and gas exploration and development would be

considered a minor source of pollutants. AQRV is included in this EA for NEPA analysis purposes.

Canyonlands National Park is the nearest Class I area with the potential to be affected by the Proposed Action. The closest parcels are located approximately 20 to 30 miles east of the Park. AQRV in Canyonlands National Park are statistically acceptable and good for most monitored pollutants. Canyonlands shares similar traits with regional issues or is better than its surroundings in many cases. The only pollutant of concern is ammonium concentrations in precipitation. This has been increasing in trends for all states west of Texas. Other regional concerns are elevated levels of ozone but this, again, is found similarly to the west. Large cities, shipping lanes, and forest fires add to the cumulative mechanisms for ozone formation. All other AQRV's that the Canyonlands National Park clearly summarize the steady or decreasing level of monitored values.

The Summary of Regional Conditions (**Table 3-2**) shows the trends best. Annual Deciview is becoming clearer when averaged over the years, and wet deposition, which are a major factor from boundary condition sources, show no increase or decrease besides ammonium. Ammonium atmospheric deposition should be the only concern and this is a transport issue and seen increasing in the west compared to other National Park trends.

Table 3-2: Summary of Regional Conditions

	Visibility	Visibility	Nitrogen Deposition	Nitrogen Deposition	Sulfur Deposition	Sulfur Deposition	Ozone	Ozone
Park	**Condition**	**Trend**	**Condition**	**Trend**	**Condition**	**Trend**	**Condition**	**Trend**
Arches	Moderate	None	Significant Concern		Good		Moderate	
Bryce Canyon	Moderate	None	Moderate	None	Good	None	Moderate	
Capitol Reef	Moderate	None	Moderate		Good		Moderate	
Canyonlands	Moderate	None	Moderate	None	Good	None	Moderate	None
Glen Canyon	Moderate	None	Good		Good		Moderate	
Grand Canyon	Moderate	None	Significant Concern	None	Moderate	None	Moderate	None
Grand Teton	Moderate	None	Significant Concern		Significant Concern		Moderate	
Great Basin	Moderate	None	Significant Concern	None	Significant Concern	None	Moderate	None
Mesa Verde	Moderate	None	Moderate	None	Moderate	None	Moderate	None
Timpanogos Cave	Moderate		Moderate		Moderate		Significant Concern	Improving
Yellowstone	Moderate	None	Significant Concern	None	Moderate	None	Moderate	None
Zion	Moderate	None	Moderate		Good		Moderate	None

More information on National Park AQRV Trends can be found here: http://nature.nps.gov/air/who/npsPerfMeasures.cfm (NPS, 2013).

Regional ozone concentrations are of concern in the lease area. Ozone monitoring data collected at Canyonlands National Park (see **Figure 1** below) demonstrates that the area encompassing the February 2016 lease sale is approaching the current 8-hour NAAQS of 75 parts per billion (ppb) for ozone. **Figure 1** below shows ozone trends at the Canyonlands monitoring site expressed in terms of the 4th maximum 8-hour value, the primary health-based standard, as well as the W-126 values, which represent a weighted

average that is biologically relevant for evaluating impacts to sensitive vegetation. Studies show that some types of vegetation are more sensitive to the deleterious effects of ozone than humans are, and can exhibit injury or harm at ozone concentrations lower than the current primary ozone standard. While Canyonlands and Arches have plant species known to be sensitive to ozone such as serviceberry (*Amelanchier* sp.), Goodding's willow (*Salix gooddingii*), and skunkbush (*Rhus aromatica*)[1], no in-park surveys have been completed that document ozone injury. In general, risk to vegetation from ozone injury may be low due to climatic conditions (i.e. low soil moisture); however, vegetation in riparian areas may be vulnerable.

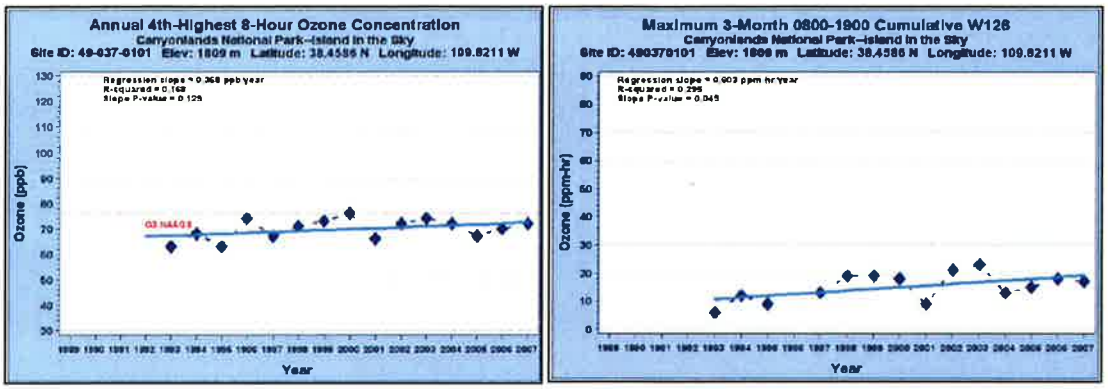

Figure 1. Trends in the annual 4th highest 8-hr ozone concentration (current primary standard, top panel) and the cumulative W126 ozone metric measured at Canyonlands National Park, Island in the Sky. Data excerpted from Perkins 2010.

The UDAQ issued the Division of Air Quality 2014 Annual Report (UDAQ, 2014) that includes information on areas of the state where monitoring data shows that levels of criteria pollutants exceed NAAQS. These areas are referred to as non-attainment areas. At present, San Juan and Grand Counties are considered in attainment or unclassified for all criteria pollutants. An "unclassified" designation indicates that sufficient air monitoring is not available to make a determination as to attainment status. For regulatory purposes, an unclassified county is considered the same as attainment. The UDAQ 2014 annual report also includes an emissions inventory (conducted in 2011) by county which includes pollutants released by all emissions sources in the state. **Table 3-3** shows the emissions inventory for San Juan and Grand Counties in tons per year (tpy).

[1] A complete list of ozone sensitive species by park is available at http://www.nature.nps.gov/air/permits/aris/networks/ozonerisk.cfm.

Table 3-3: Emissions Inventory (2011)

Pollutant	San Juan County	Grand County
PM_{10}	5,917	647
$PM_{2.5}$	1,467	356
SOx	57	24
NOx	1,591	2,213
VOC	65,357	36,703
CO	19,324	13,883

Although not listed as a NAAQS criteria pollutant, volatile organic compounds (VOCs) are also considered in this EA as they, along with NOx, are precursors to the formation of ozone and are listed by UDAQ as a pollutant that, if the threshold is exceeded, would require an approval order.

This EA addresses mobile off road engine exhaust emissions from drilling activities, venting and flaring emissions from completion and testing activities, emissions from ongoing production activities, and fugitive dust emissions, specifically, emissions of total particulate matter of less than 10 micrometers (PM_{10}) from heavy construction operations. PM_{10} emissions are converted from total suspended particulates by applying a conversion factor of 25%. $PM_{2.5}$ is not specifically addressed as it is included as a component of PM_{10}. This EA does not consider mobile emissions as they are dispersed, sporadic, temporary, and not likely to cause or contribute to an exceedance of the NAAQS.

3.3.2 Lands with Wilderness Characteristics

As discussed in **Chapter 2**, leasing is an administrative action that affects economic conditions but does not directly cause environmental consequences. However, leasing is considered to be an irretrievable commitment of resources because the BLM generally cannot deny all surface use of a lease unless the lease is issued with a NSO stipulation. Potential oil and gas exploration and production activities, committed to in a lease sale, could impact other resources and uses in the planning area. Direct, indirect, or cumulative effects to resources and uses could result from as yet undetermined and uncertain future levels of lease exploration or development.

Although at this time it is unknown when, where, or if future oil and gas exploration and development might be proposed on any leased parcel, should a lease be issued, site specific analysis of individual wells, roads, pipelines and/or other facilities would occur when a lease holder submits an APD. For the purposes of this analysis, the BLM assumed oil and gas development would continue to occur as predicted in the Moab planning area "Reasonably Foreseeable Development Scenario for Oil and Gas" (BLM, 2005); and oil and gas development would occur proportionate to acres of oil and gas leases authorized.

Proposed lease parcel UT0216-064 encompasses lands determined by the BLM MbFO to possess wilderness characteristics. Approximately 3.27 acres of the 1,280 acres in the northeast of lease parcel UT0216-063, within the 14,768 acre Coyote Wash West area identified as possessing wilderness characteristics, could be impacted.

The 2008 Moab RMP identified the Coyote Wash West area as lacking wilderness characteristics, although BLM had no formal wilderness characteristics inventory procedures in place at the time. In March 2012, BLM issued Manual 6310 outlining policies and procedures for evaluating lands for the presence, or lack thereof, of wilderness characteristics. In response to the issuance of Manual 6310, the Southern Utah Wilderness Alliance (SUWA) provided Moab BLM with a proposal of 17,541 acres. This areage excluded several "cherry-stems" that account for several travel routes and exclusions along boundary routes that are roadside impacts to naturalness. BLM evaluated this proposal using the procedures of Manual 6310, and determined that Coyote Wash West possessed 14,768 acres of wilderness characteristics (see Appendix G).

3.3.3 Migratory Birds including Raptors

A variety of migratory song bird species use habitats within these parcels for breeding, nesting, foraging, and migratory habitats. Migratory birds are protected under the Migratory Bird Treaty Act of 1918 (MBTA). Unless permitted by regulations, the MBTA makes it unlawful to pursue, hunt, kill, capture, possess, buy, sell, purchase, or barter any migratory bird, including the feathers or other parts, nests, eggs, or migratory bird products. In addition to the MBTA, Executive Order 13186 sets forth the responsibilities of Federal agencies to further implement the provisions of the MBTA by integrating bird conservation principles and practices into agency activities and by ensuring that Federal actions evaluate the effects of actions and agency plans on migratory birds.

A Memorandum of Understanding (MOU) between the BLM and USFWS (BLM MOU WO-230-2010-04) provides direction for the management of migratory birds to promote their conservation. At the project level, the MOU direction includes evaluating the effects of the BLM's actions on migratory birds during the NEPA process; identify potential measurable negative effect on migratory bird populations focusing first on species of concern, priority habitats, and key risk factors. In such situations, BLM would implement approaches to lessen adverse impact. Identifying species of concern, priority habitats, and key risk factors includes identifying species listed on the USFWS Birds of Conservation Concern (BCC) that are most likely to be present in the project area and evaluating and considering management objectives and recommendations for migratory birds resulting from comprehensive planning efforts, such as Utah Partners in Flight American Land Bird Conservation Plan. The Utah Partners in Flight (UPIF) Working Group completed a statewide avian conservation strategy identifying "priority species" for conservation due to declining abundance distribution, or vulnerability to various local and/or range-wide risk factors. One application of the strategy and priority list is to give these birds specific consideration when analyzing effects of proposed management actions and to implement recommended conservation measures where appropriate.

The UPIF Priority Species List, the BCC list for Region 16 (Colorado Plateau) and the Utah Conservation Data Center database (Utah Division of Wildlife Resources, 2015) were used to identify potential habitat for priority species that could utilize habitats within the CCDO. **Table 3-4** lists the UPIF Priority Species list and the USFWS BCC species that are a concern within the CCDO. These species could occur anywhere within the District at any given time.

Table 3-4: Canyon Country District Office UPIF & FWS BCC Species 2008 (Region 16)

Species	BCC	UPIF	DWR Habitats	1st Breeding Habitat	2nd Breeding Habitat	Winter Habitat
Bald Eagle	X		Winter	Lowland Riparian	Agriculture	Lowland Riparian
Band-tailed Pigeon			Critical/ Substantial	Ponderosa pine	Mixed conifer	Migrant
Black Rosy-finch	X	X	Substantial/ Critical	Alpine	Alpine	Grassland
Black-necked Stilt		X	Critical	Wetland	Playa	Migrant
Black-throated Gray Warbler		X	Prime Breeding	Pinyon-Juniper	Mountain Shrub	Migrant
Bobolink		X	Prime Breeding/Winter	Wet Meadow	Agriculture	Migrant
Brewer's Sparrow	X	X	Critical/High	Shrub/steppe	High Desert Shrub	Migrant
Broad-tailed Hummingbird		X	Critical/ Substantial	Lowland Riparian	Mountain Riparian	Migrant
Burrowing Owl	X		Primary Breeding	High Desert Shrub	Grassland	Migrant
Cassin's Finch	X		Critical/Substantial	Aspen	Sub-Alpine conifer	Lowland Riparian
Ferruginous Hawk	X	X	Prime Breeding	Pinyon-Juniper	Shrub/steppe	Grassland
Flammulated Owl	X		Critical	Ponderosa pine	Sub-Alpine conifer	Migrant
Gambel's Quail		X	High	Low Desert Shrub	Lowland Riparian	Low Desert Shrub
Golden Eagle	X		Critical/High	Cliff	High Desert Shrub	High Desert Shrub
Grace's Warbler	X		Critical	Ponderosa pine	Mixed conifer	Migrant
Gray Vireo	X	X	Prime Breeding/Winter	Pinyon-Juniper	Oak	Migrant
Juniper Titmouse	X		Critical/High	Pinyon-Juniper	Pinyon-Juniper	Pinyon-Juniper
Lewis's Woodpecker	X	X	Prime Breeding	Ponderosa pine	Lowland Riparian	Oak
Long-billed Curlew	X	X	Substantial/Prime Breeding	Grassland	Agriculture	Migrant
Pinyon Jay	X		Critical/High	Pinyon-Juniper	Ponderosa pine	Pinyon-Juniper
Prairie Falcon	X		Critical/High	Cliff	High Desert Shrub	Agriculture
Sage Sparrow		X	Critical	Shrub/steppe	High Desert Shrub	Low Desert Shrub
*Southwestern Willow Flycatcher**	X		Migrant			
Verry	X		High	Lowland Riparian	Lowland Riparian	Migrant
Virginia's Warbler		X	Prime Breeding/Winter	Oak	Pinyon-Juniper	Migrant
Willow Fly-catcher	X		Migrant	Lowland Riparian	Mountain Riparian	Migrant
Yellow-billed Cuckoo*	X	X	Not Known	Lowland Riparian	Agriculture	Migrant

‡Utah Partners in Flight Avian Conservation Strategy Version 2.0 (Parrish et al., 2002), §Birds of Conservation Concern 2008 (USFWS, 2008)
†Utah Conservation Data Center, *Utah Sensitive Species,**=Federally List, *Italic=Utah Sensitive Species*

Raptors. Habitats within the CCDO area have the potential to support breeding, nesting, and foraging raptors, golden eagle and wintering bald eagles. Raptor nest sites are typically located on promontory points such as cliff faces and rock outcrops in areas with slopes of 30 percent or greater, but they may also nest in pinyon, juniper, or deciduous trees. Raptors typically use the same nest site year after year. Raptor young tend to disperse to areas near the traditional nest sites. The project area also offers suitable wintering and migration habitats for several raptor species. The nesting season for most raptors in the CCDO area extends from March 1 through August 31.

Raptor species with the potential to occur in the CCDO area are identified in **Table 3-5** with a description of their nesting and foraging habitats.

Table 3-5: Raptor Species with the Potential to Occur Canyon Country District Office and USFWS Spatial and Seasonal Buffers

Common Name	Scientific Name	General Habitat and Potential to Occur in the Canyon County District	Spatial Buffer [1] (miles)	Seasonal Buffer [1]
Sharp-shinned Hawk	*Accipiter striatus*	Moderate to high potential to nest and forage in pinyon/juniper woodlands, nesting in more dense areas that have older and larger trees or riparian areas and drainages. Low potential to nest in desert shrub.	0.5	3/15-8/31
Cooper's Hawk	*Accipiter cooperii*	Moderate to high potential to nest and forage in deciduous, mixed-deciduous, and pinyon/juniper woodlands nesting in more open areas that have older and larger trees or riparian areas and drainages. Low potential to nest in desert shrub.	0.5	3/15-8/31
Golden Eagle	*Aquila chrysaetos*	Occurs throughout the district. Commonly nests on cliff ledges and rock outcrops. High potential to forage in desert shrub, canyon habitats and lower elevation open pinyon-juniper woodlands.	0.5	1/1-8/31
Bald Eagle	*Haliaeetus leucocephalus*	Winter habitat typically includes areas of open water, adequate food sources, and sufficient diurnal perches and night roosts. High potential to occur during the winter along the river corridors, in desert shrub and canyon habitats and lower elevation pinyon-juniper woodlands. Nesting occurs along the river corridors. No potential for nesting in lease parcels.	0.5	1/1/-8/31
Burrowing Owl	*Athene cunicularia*	Low potential to nest in pinyon-juniper woodland area due to lack of prairie dog colonies in the area. High potential to forage and nest in sagebrush/grassland community and desert scrublands. Utilizes open habitats such as grasslands that also offer prairie dog or other burrowing mammal habitats. Commonly utilizes prairie dog burrows for nesting.	0.25	3/1-8/31
Long-eared Owl	*Asio otus*	Occurs throughout the district. High potential to nest in dense vegetation adjacent to open grasslands or shrublands; also open coniferous or deciduous woodlands. Moderate to high potential to nest in pinyon-juniper woodlands. Moderate to high potential to forage in desert shrub, grasslands and open canopy pinyon-juniper woodlands.	0.25	2/1-8/15
Great-horned Owl	*Bubo virginianus*	Occurs throughout the district in a variety of habitats. Nests on cliff ledges, deciduous and pinyon-juniper trees, and nests of other species. Moderate to high potential to nest and forage in canyon habitats, shrub-steppe, desert shrub and pinyon-juniper woodlands.	0.25	12/1-9/31
Ferruginous Hawk	*Buteo regalis*	Commonly nests on ground, in pinyon-juniper woodlands, and on rock outcrops. High potential to nest and forage in desert shrub and pinyon-juniper woodlands.	0.5	3/1-8/1
Red-tailed Hawk	*Buteo jamaicensis*	Occurs throughout the district in a variety of habitats including deserts, grasslands, coniferous and	0.5	3/15-8/15

Common Name	Scientific Name	General Habitat and Potential to Occur in the Canyon County District	Spatial Buffer [1] (miles)	Seasonal Buffer [1]
		deciduous forests. Typically nests in the tallest tree. Moderate to high potential to nest on cliffs and low potential to nest in dense pinyon-juniper woodlands unless tall ponderosas are available. High potential to forage in desert shrub and pinyon-juniper woodlands.		
Swainson's Hawk	*Buteo swainsoni*	Not likely to nest in the district. Moderate potential to forage in desert shrub and pinyon-juniper woodlands.	0.5	3/1-8/31
Northern Harrier	*Circus cyaneus*	Moderate potential to forage and nest in sagebrush/grassland vegetative community and desert scrublands. Low potential to nest in pinyon-juniper woodlands. Utilizes open habitats such as marshes, fields, and grasslands.	0.5	4/1-8/15
Peregrine Falcon	*Falco peregrinus*	High potential to nest on cliffs and ledges near riparian areas. Nest sites in southern Utah are associated with pinyon-juniper and deciduous riparian woodlands.	1.0	2/1-8/31
Prairie Falcon	*Falco mexicanus*	High potential to nest on cliffs and ledges. Moderate potential to forage in desert shrub, moderate in pinyon-juniper woodland.	0.25	4/1-8/31
American Kestrel	*Falco sparverius*	Moderate potential to nest on cliffs, and ledges. Moderate potential to forage from cliffs and ledges and low potential in desert shrub and pinyon-juniper woodland.	0	4/1-8/15

* Romin and Muck, 2002, Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances.

4.0 ENVIRONMENTAL IMPACTS

4.1 Introduction

This chapter discusses the environmental consequences of implementing the alternatives described in **Chapter 2**. Under NEPA, actions with the potential to affect the quality of the human environment must be disclosed and analyzed in terms of direct and indirect effects (whether beneficial or adverse and short or long term) as well as cumulative effects. Direct effects are caused by an action and occur at the same time and place as the action. Indirect effects are caused by an action but occur later or farther away from the resource. Beneficial effects are those that involve a positive change in the condition or appearance of a resource or a change that moves the resource toward a desired condition. Adverse effects involve a change that moves the resource away from a desired condition or detracts from its appearance or condition. Cumulative effects are the effects on the environment that result from the incremental effect of the action when added to other past, present, and reasonably foreseeable future actions.

The No Action Alternative (offer none of the nominated parcels for sale), serves as a baseline against which to evaluate the environmental consequences of the Proposed Action alternative. For each alternative, the environmental effects are analyzed for the resources that were carried forward for analysis in **Chapter 3**.

4.2 Direct and Indirect Impacts

4.2.1 Alternative A – Proposed Action

4.2.1.1 Air Quality

The act of leasing would not result in impacts to air quality. However, should the leases be issued, development of those leases could impact air quality conditions. It is not possible to accurately estimate potential air quality impacts by computer modeling from the Proposed Action due to the variation in emission control technologies as well as construction, drilling, and production technologies applicable to oil versus gas production and utilized by various operators, so this discussion will remain qualitative. Prior to authorizing specific proposed projects on the subject lease parcels, quantitative computer modeling using project specific emission factors and planned development parameters (including specific emission source locations) may be conducted to adequately analyze direct and indirect potential air quality impacts. In conducting subsequent project specific analysis, BLM will follow the policy and procedures of the National Interagency MOU Regarding Air Quality Analysis and Mitigation for Federal Oil and Gas Decisions through NEPA, and the Federal land managers' air quality related values work group (FLAG) 2010 air quality guidance document. Air quality dispersion modeling which may be required includes impact analysis for demonstrating compliance with the NAAQS, plus analysis of impacts to AQRV (i.e. deposition, visibility), particularly as they might affect nearby Class 1 areas (National Parks and Wilderness areas).

An oil or gas well, including the act of drilling, is considered to be a minor source under the Clean Air Act. Minor sources are not subject to Clean Air Act Title V Operating

Permit requirements. In addition, control technology is not required by regulatory agencies at this point, since San Juan and Grand Counties are considered to be in attainment of the NAAQS. A producing oil and gas well may be subject to UDAQ New Source Review requirements. UDAQ requires a New Source Review Permit, also known as an Approval Order, for any new or modified stationary source of air pollution emissions. **Table 4-1** lists the UDAQ permit types required for sources of air pollutants.

Table 4-1 – UDAQ Permitting Requirements

Permit Type	Emission Levels for Criteria Pollutants[1] Tons per Year (tpy)	Emission Levels for Hazardous Air Pollutants (Pounds per Year[2])
Small Source Exemption	Less Than 5 tpy	Less Than 500 for one or 2000 for a combination
Approval Order[3]	Greater Than 5 tpy	More Than 500 for one or 2000 for a combination
Title V Operating Permit	Greater Than 100 tpy	More Than 10 TPY for one or 25 TPY for a combination

1 - Criteria pollutants are SOx, NOx, PM_{10}, VOCs, CO, Ozone.
2 - There are 188 Hazardous Air Pollutants, HAPs
3 - An approval order or operating permit is required throughout the state if emissions are above the permitting categories.

As indicated in the table, a small source exemption from obtaining an approval order is available for any stationary source if emissions are less than 5 tpy of criteria pollutants.

The UDAQ issued General Approval Order (GAO) (DAQE-ANI49250001-14) for a Crude Oil and Natural Gas Well Site and/or Tank Battery (UDAQ, 2014) on June 5, 2014. This GAO provides certainty and consistency for oil and gas well and facility owner/operators and streamlines the air quality permitting process. A dispersion modeling analysis was conducted for NOx. Conditions in this GAO reflect the results of this modeling analysis and will ensure protection of the NAAQS. The HAP emissions are limited by emission controls and equipment specification. The potential emissions (50,000 barrels of oil per year) on which this GAO is based, in tons per year, are estimated to be as follows: PM_{10} = 0.56 (which includes $PM_{2.5}$), $PM_{2.5}$: = 0.52, NOx = 8.45, CO = 12.94, VOC = 13.55, HAPs = 2.55, and CO2e = 6,348.

It is anticipated that oil and gas development resulting from the Proposed Action would qualify for either a small source exemption or the operator could operate under the Oil and Gas GAO.

Different emission sources would result from the two site specific lease development phases: well development and well production. Well development includes emissions from earth-moving equipment, vehicle traffic, drilling, and completion activities. NO_X, SO_2, and CO would be emitted from vehicle tailpipes. Fugitive dust concentrations would increase with additional vehicle traffic on unpaved roads and from wind erosion in areas of soil disturbance. Drill rig and completion engine operations would result mainly in NO_X and CO emissions, with lesser amounts of SO_2. These temporary emissions would be short-term during the drilling and completion times.

During well production there are continuous emissions from separators, condensate storage tanks, and daily tailpipe and fugitive dust emissions from operations traffic. During the operational phase of the Proposed Action, NO_X, CO, VOC, and HAP

emissions would result from the long-term operation of condensate storage tank vents, and well pad separators. Additionally, road dust (PM_{10} and $PM_{2.5}$) would be produced by vehicles servicing the wells.

Project emissions of ozone precursors, whether generated by construction and drilling operations, or by production operations, would be dispersed and/or diluted to the extent where any local ozone impacts from the Proposed Action would be indistinguishable from background or cumulative conditions. The primary sources of HAPs are from oil storage tanks and smaller amounts from other production equipment. Small amounts of HAPs are emitted by construction equipment. However, these emissions are estimated to be less than 1 tpy.

Lease stipulation UT-S-01 Air Quality, which regulates the amounts of NO_X emission per horse-power hour based on internal combustion engine size, would be attached to all parcels. However, additional air impact mitigation strategies have recently been developed in the Uinta Basin, and are presented in the cumulative impacts section.

The estimated emissions for the Proposed Action are based on the BLM Utah State Office oil and gas emissions tool kit located at:, http://www.blm.gov/ut/st/en/prog/more/air_quality/airprojs.html.

The estimated emissions are based on the following analysis assumptions contained in the MbFO RFD (McClure, Nothrup, Fouts, 2005) and previous oil and gas development in the MbFO.

- Each oil and gas well would cause 15 acres of surface disturbance. This acreage is divided into five acres for road and pipeline construction and 10 acres for well pad construction.
- Construction activity for each well is assumed to be 11 days. It is further assumed that, based on the acreage disturbed, seven days would be spent in well pad construction and four days would be spent in road and pipeline construction.
- Control efficiency of 50% for dust suppression would be achieved as a result of compliance with Utah Air Quality regulation R307-205.
- Drilling operations would require 21 days.
- Completions and testing operations would require five days.

The Estimated Annual Emissions for the Proposed Action are displayed in **Table 4-2**.

Table 4-2: Estimated Annual Emissions Summary

	Criteria Pollutants					Organics		Greenhouse Gases				
Activity	PM_{10}	$PM_{2.5}$	NO_x	SO_2	CO	VOC	HAPs	CO_2	CH_4	N_2O	CO_{2eq}	CO_{2eq} metric tonnes
Construction	16.22	2.34	0.42	0.00	2.22	0.81	0.03	699.62	2.79	0.01	762.27	691.72
Operations	2.68	0.28	0.41	0.00	0.44	36.46	3.13	224.86	109.24	0.01	2,520.60	2,287.29
Maintenance	7.81	0.79	0.25	0.005	0.26	0.10	0.010	34.677	0.000	0.00	35.29	32.02

Reclamation	**0.04**	**0.01**	**0.04**	**0.0011**	**0.01**	**0.004**	**0.0004**	**5.0822**	**0.0001**	**0.0001**	**5.1031**	**4.6308**
Total Emissions	**26.79**	**3.41**	**1.13**	**0.01**	**2.93**	**37.37**	**3.17**	**964.23**	**112.03**	**0.02**	**3,323.26**	**3,015.66**

A project specific modeling analysis was also conducted in 2010 for a project with similar likely development characteristics as would be expected from this lease sale (Cane Creek Modeling Report, (Golder, 2010)). This modeling analysis analyzed the expected impacts from a 17 well project to NO_2 and PM_{10} Class I PSD Increment Consumption using AERMOD, nitrogen deposition within nearby national parks using CALPUFF-lite, and visibility impacts within nearby national parks using VISCREEN. The project area for this modeling analysis was located closer to the National Parks than any of the parcels under this lease sale, so can be considered a conservative air quality analysis for purposes of this analysis. No adverse impacts to Class I related AQRV were predicted through this modeling analysis.

Based on the estimated emissions from the Proposed Action, the Cane Creek modeling analysis tiered to for this EA, the air quality analysis in the MbFO PRMP, the Proposed Action is not likely to violate, or otherwise contribute to any violation of any applicable air quality standards, and may only contribute a small amount to any projected future potential exceedance of any applicable air quality standards.

4.2.1.2 Lands with Wilderness Characteristics

Under the Proposed Action, up to 3.27 acres of lands with wilderness characteristics in the Coyote Wash West area could be impacted if Parcel UT0216-064 were leased and developed. This represents 0.02% of the 14,768 acres in Coyote Wash West found by BLM to possess wilderness characteristics.

In addition to the loss of naturalness caused by such surface disturbances, there would be a loss of outstanding opportunities for solitude and/or primitive and unconfined recreation in the vicinity of the surface disturbance. On the other hand, any surface disturbances resulting from lease-related development could occur on lands within the parcel not previously determined to possess wilderness characteristics, in which case there would be no impact to that resource.

4.2.1.3 Migratory Birds including Raptors

Migratory birds are protected by the MBTA and Executive Order 13186. An intentional take under the MBTA is the deliberate taking of migratory birds with the take as the primary purpose of an action. No actions considered in this analysis involve the intentional take of migratory birds.

All parcels may incur impacts to migratory birds, excluding raptors, if surface disturbing activities occur during the nesting season (May 1st through July 31st). Construction and development activities during the nesting season would create the greatest impacts to migratory birds. Impacts to nesting migratory birds could include nest site abandonment, nest failure and chick mortality; and may also cause premature fledging which may also lead to chick mortality. These impacts would be specific to that nesting season, as parent birds would re-nest in following years in more suitable locations.

A lease notice (UT-LN-44: Raptors) informing the potential lessee that surveys for nesting migratory birds may be required during migratory bird breeding season whenever surface disturbances and/or occupancy is proposed in association with fluid mineral exploration and development within priority habitats has been attached to all of the lease parcels. The surveys would be determined on a site-specific basis.

Disturbing activities (such as flaring) outside of migratory bird breeding and nesting season may cause temporary, short distance and short term displacement that would have minimal to no impacts to birds, as birds can easily move to other suitable areas. Immeasurable indirect impacts may include fragmentation and loss of unoccupied suitable habitats in the developed area but there are sufficient suitable habitats in surrounding areas, therefore impacts would be minimal.

The Comprehensive Wildlife Conservation Strategy, Utah Partners in Flight Avian Conservation Strategy Version 2.0. (2002), Birds of Conservation Concern (2002), Executive Order 13186: Responsibilities of Federal Agencies to Protect Migratory Birds, MOU between the BLM and USFWS to Promote the Conservation and Management of Migratory Birds (2010) provide direction to promote migratory bird conservation. Project specific and site specific conservation measures would be developed as needed during project development to ensure impacts to migratory birds and their habitats are minimized during development.

Raptors (eagles, hawks and owls) are given federal protection under the Migratory Bird Act and Executive Order 13186. Nesting raptors would be given both seasonal and spatial protection throughout the implementation of this project according to the USFWS 2002 Raptor Protection Guidelines and through the BLMs BMPs for Raptor Protection. There would be no direct effects to nesting raptors as breeding season raptor surveys would be conducted and impacts to nesting raptors would be avoided if nesting raptors are found in the project area.

Raptors may forage in the project area. Construction, operations and maintenance activities may cause foraging raptors to avoid the proposed project area. However, these activities are not likely to affect the raptors, as they could avoid disturbance by moving to other areas to forage and roost.

Some degree of habitat degradation or fragmentation may potentially occur as an indirect effect development. Foraging habitat may be impacted but it would be limited to the disturbance footprint, as prey species may be displaced but individuals would be able to relocate to surrounding suitable habitat within the project area. This habitat loss can be difficult to predict. An immeasurable indirect effect could occur within the project area or in nearby suitable habitats currently unused for nesting if human and vehicular activity increases as a result of development. New disturbance created by increased activity may make nesting habitat undesirable by potential nesting raptors during the following or future breeding seasons.

4.2.1.4 Mitigation

Mitigation for the MbFO RMP was addressed within the final EIS. This mitigation was carried forward as BMPs, standard operating procedures and the stipulations or notices as

identified in the corresponding appendices. This also incorporates the conclusions of the USFWS in their biological opinion and concurrence from the State Historic Preservation Office.

Application of applicable stipulations and lease notices (**Appendix A**) to lease parcels would be adequate for the leasing stage to disclose potential future restrictions and to facilitate the reduction of potential impacts upon receipt of a site specific APD.

Additional air quality control measures may be warranted and imposed at the APD stage. These control measures are dependent on future regional modeling studies, other analysis or changes in regulatory standards. As such, lease notices UT-LN-96 (Air Quality Mitigation Measures), UT-LN-99 (ozone control) and UT-LN-102 (air quality analysis) would be appropriate to inform an operator and the general public that additional air quality control measures may be pursued.

Reasonable and prudent measures and terms and conditions beyond the USFWS programmatic opinion were not required. The RMP stipulations and BMPs determined to be appropriate to attach to each lease parcel are also consistent with the USFWS's recommended conservation and resource protection measures. It is possible that additional measures may be required at the APD stage.

The application of additional measures to mitigate (reduce or eliminate) the effects of the Proposed Action is not warranted. The Proposed Action includes applicable design features (stipulations and notices). There are no residual effects remaining after the application of the stipulations.

4.2.2 Alternative B - No Action Alternative

This alternative (not to offer any of the nominated parcels for sale) would not meet the need for the Proposed Action. All parcels may be subject to drainage of Federal reserves by development on adjacent state or private leases.

Although drilling and production activities on federal land surfaces are restricted to leased parcels, oil and gas exploration may also be authorized on unleased public lands, on a case-by-case basis, pursuant to 43 CFR 3150.0-1. Accordingly, this alternative would not prevent direct, indirect, or cumulative environmental impacts relating to oil and gas exploration activities through denial of the Proposed Action. Additionally, this alternative would not prevent indirect impacts relating to rights of way authorizations to support oil and gas operations on adjacent leased lands.

4.2.2.1 Air Quality

The No Action Alternative would result in continuation of already approved land uses with any attendant potential air quality impacts, but would not result in impacts relating to exploration and development of these lease parcels, because they would not be leased. Other exploration and development activities on surrounding areas that are currently leased would continue.

4.2.2.2 Lands with Wilderness Characteristics

The No Action Alternative would not result in impacts to lands determined by the BLM to have wilderness characteristics.

4.2.2.3 Migratory Birds including Raptors

The No Action Alternative would result in continuation of already approved land uses with any attendant potential impacts on migratory birds, but would not result in impacts relating to exploration and development of these lease parcels, because they would not be leased. Other exploration and development activities on surrounding areas that are currently leased would continue.

4.2.2.4 Mitigation

The No Action Alternative would not require mitigation.

4.3 Cumulative Impacts

A cumulative impact is defined in Council on Environmental Quality 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 (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively major actions taking place over a period of time. Past and present actions and reasonably foreseeable future actions with the potential to contribute to cumulative effects are discussed below followed by an analysis of cumulative effects. All resource values addressed in **Chapter 3** have been evaluated for cumulative effects. If, through the implementation of mitigation measures or project design features, no net effect to a particular resource results from an action, then no cumulative effects result.

A variety of activities, such as sightseeing, biking, camping, and hunting, have occurred and are likely to continue to occur near or within some or all of the nominated parcels; these activities likely result in negligible impacts to resources because of their dispersed nature. Other activities, such as farming, livestock grazing, vegetation projects, and motorized recreation on unpaved roads have also occurred within some or all of the nominated parcels and are likely to occur in the future. These types of activities are likely to have a greater impact on resources in the project area because of their more concentrated nature. Because these activities are occurring within the nominated parcel boundaries, they have the potential to contribute to cumulative effects.

The cumulative impacts analysis as described in the MbFO PRMP FEIS -is incorporated by reference to **Chapter 4**. The Proposed Action would contribute to these cumulative impacts by making seven parcels (8,121.22 acres) available for lease sale and mineral development, with the potential for future surface disturbance should the leases be developed. The No Action Alternative would not contribute any cumulative impacts. The past, present, and foreseeable future actions with the potential to contribute to surface disturbance include development of new and existing mineral rights or realty actions (for example, pipeline or road rights of way) or the continuation of agricultural activities.

4.3.1 Air Quality

The Cumulative Impact Analysis Area (CIAA) for air quality is the Four Corners area of southeast Utah and the adjoining states of Arizona, New Mexico, and Colorado. As described in the Affected Environment chapter, regional ozone is a recognized pollutant of concern in the Four Corners region, with ambient concentrations near, but not over, the relevant NAAQS. Oil and gas development does not directly emit ozone; however, the formation of ozone at the lower levels of the atmosphere is related to emissions of NOx and VOC, which are pollutants emitted by oil and gas operations. The Air Quality Modeling Study for the Four Corners Region (FC CAMx) (EIC 2009b) was prepared to model the air quality impacts of potential alternative mitigation strategies being developed by various Four Corners Air Quality Task Force work groups. The four kilometer modeling domain (EIC 2009b, Figure ES-1) for this study included much of San Juan County, Utah. Ozone predictions in this study indicate that NAAQS ozone levels would not be exceeded.

There are other regional modeling studies currently underway that will be able to better inform any future subsequent development on these leases, and these should be able to be used to further evaluate potential lease devolvement impacts on regional ozone formation in the Four Corners area once project specific proposals are made. These include the West Jump study, which will provide source apportionment estimates for ozone formation in the Four Corners area, and the BLM Utah Air Resources Management Strategy modeling study, which will evaluate future development scenarios across Utah.

To mitigate any potential impact oil and gas development emissions may have on regional ozone formation in the CIAA the following BMPs would be required through lease notice: UT-LN-99: Regional Ozone Formation Controls for any development projects related to this lease sale. To mitigate any potential impact from oil and gas development to air quality; lease notices UT-LN-96: Air Quality Mitigation Measures and UT-LN-102: Air Quality Analysis will apply to all lease parcels for this sale. Refer to **Appendix A** for the full text of these lease notices.

As previously discussed in **Section 3.3.1**, UDAQ conducts an EI every three years of pollutants released by all emissions sources in the state. At present, San Juan and Grand Counties are considered unclassified or in attainment for all NAAQS criteria pollutants.

Based on the modeling referenced in this section, and the application of these BMPs, it is not unlikely emissions from any subsequent development of the proposed leases would significantly contribute to regional ozone formation in the Four Corners area, nor is it likely to contribute or cause exceedances of NAAQS.

4.3.2 Lands with Wilderness Characteristics

The CIAA consists of the 14,768 acres of wilderness characteristics areas within the project area because impacts to wilderness characteristics within this area would not result in impacts to wilderness characteristics elsewhere.

No surface disturbance has resulted from past and present actions within the CIAA. No actions are reasonably foreseeable actions within the CIAA. It is possible that any lands

leased for oil and gas within the CIAA would be impacted by exploration drilling and production activities, although such activities are more likely to occur in the portions of the lease parcel not identified as possessing wilderness characteristics (due to the very small footprint available within the CIAA). Because the identification of lands with wilderness characteristics is administrative and does not accompany a recommendation regarding wilderness or WSA designation, the right to explore and develop existing oil and gas leases on lands with wilderness characteristics remains valid.

Cumulative impacts likely would not result to the 3.27 acres of lands that exhibit wilderness characteristics inside the project area. Temporary impacts to lands with wilderness characteristics from project operations would not affect the criteria for which the evaluation of such characteristics is made. No accumulation of impacts would occur. Under the Proposed Action, up to 3.27 acres of lands with wilderness characteristics in the Coyote Wash West area could be impacted if Parcel UT0216-064 were leased and developed. This represents 0.02% of the 14,768 acres in Coyote Wash West found by BLM to possess wilderness characteristics and only 0.26% of lease parcel UT0216-063.

4.3.3 Migratory Birds including Raptors

The CIAA for Migratory Birds is the CCDO area. Cumulative impacts to migratory birds were adequately analyzed in the MbFO RMP FEIS and are included in this EA by reference (MbFO PRMP Chapter 4.3.24.14, pgs. 4-515 and 516). Cumulative impacts include loss of their habitat, habitat fragmentation, and disruption or alteration of seasonal migration routes.

5.0 CONSULTATION AND COORDINATION

5.1 Introduction

The issue identification section of **Chapter 1** identifies those issues analyzed in detail in **Chapter 4**. The ID team checklist provides the rationale for issues that were considered but not analyzed further. The issues were identified through the public and agency involvement process described in **Section 5.2** and **Section 5.3** below.

5.2 Persons, Groups, and Agencies Consulted

Table 5-1 lists the persons, groups and agencies consulted for this EA.

Table 5-1: List of all Persons, Agencies and Organizations Consulted for Purposes of this EA

Name	Purpose & Authorities for Consultation or Coordination	Findings & Conclusions
Utah State Historic Preservation Office (SHPO)	Consultation as required by Section 106 of the NHPA.	SHPO consultation is ongoing.
Native American Tribes	Consultation as required by the American Indian Religious Freedom Act of 1978 (42 USC 1531) and NHPA (16 USC 1531)	Consultation letters were mailed on August 11, 2015. Refer to **Appendix H** for the consultation letter, a listing of Native American Tribes consulted. Consultation is on-going.
Old Spanish Trail Association	Interested Party Coordination	A consultation letter was mailed on August 10, 2015. Consultation is on-going.
Old Spanish National Historic Trail Administrator	Interested Party Coordination	A consultation letter was mailed on August 10, 2015. Consultation is on-going.
National Park Service - National Trails Intermountain Region	Interested Party Coordination	A consultation letter was mailed on August 10, 2015. Consultation is on-going.
State of Utah, Public Lands Policy Coordination Office	Interested Party Coordination	UTSO BLM mailed a letter or memo with information and the preliminary list on May 21, 2015. The State of Utah, Public Lands Policy Coordination Office has not responded identifying any concerns. Lack of response is interpreted by BLM as the party has no concerns relative to the Proposed Action.
State of Utah, School and Institutional Trust Lands Administration	Interested Party Coordination	UTSO BLM mailed a letter or memo with information and the preliminary list on May 21, 2015. The State of Utah, School and Institutional Trust Lands Administration has not responded identifying any concerns. Lack of response is interpreted by BLM as the party has no concerns

Name	Purpose & Authorities for Consultation or Coordination	Findings & Conclusions
		relative to the Proposed Action.
Utah Division of Wildlife Resources	Interested Party Coordination	UTSO BLM mailed a letter or memo with information and the preliminary list on May 21, 2015. The UDWR provided scoping comments to the BLM via letter dated August 7, 2015 (letter received via email on August 3, 2015).
Bureau of Indian Affairs Navajo Regional Office	Consult BIA as a leasing program partner.	UTSO BLM mailed a letter or memo with information and the preliminary list on May 22, 2015. The BIA and Navajo Nation provided scoping comments to the BLM via letter received on August 7, 2015). The letter stated that the BIA and the Navajo Nation recommended that parcels UT0216-026, UT0216-037 and UT0216-038 be excluded (deferred) from the February 2016 lease sale.
U.S. Fish & Wildlife Service	Information on Consultation, under Section 7 of the Endangered Species Act (16 USC 1531)	UTSO BLM mailed a letter or memo with information and the preliminary list on May 21, 2015. The USFWS has not responded identifying any concerns. Lack of response is interpreted by BLM as the party has no concerns relative to the Proposed Action.
U.S. Forest Service	Consult the U.S. Forest Service as a leasing program partner.	UTSO BLM mailed a letter or memo with information and the preliminary list on May 21, 2015. The U.S. Forest Service has not responded identifying any concerns. Lack of response is interpreted by BLM as the party has no concerns relative to the Proposed Action.
National Park Service	Consult the NPS as a leasing program partner.	UTSO BLM mailed a letter or memo with information and the preliminary list on May 21, 2015. The NPS has not responded identifying any concerns. Lack of response is interpreted by BLM as the party has no concerns relative to the Proposed Action.
Split-Estate Private Surface Owners	Per IM No. 2010-117, *Oil and Gas Leasing Reform*; split-estate private surface owners will be notified of leasing activities.	The MbFO mailed letters with information and the preliminary list on May 22, 2015. On May 27, 2015, Ms. Erin Barry

Name	Purpose & Authorities for Consultation or Coordination	Findings & Conclusions
		(surface owner of parcel UT0216-065) telephoned the MbFO to discuss the lease sale. The MbFO explained that parcel UT0216-065 is located within USFWS proposed Gunnison sage-grouse habitat and the parcel would be deferred from leasing. Similarly, on June 2, 2015, Mr. Robert Barry (surface owner of parcel UT0216-066) visited the MbFO to discuss the lease sale. The MbFO explained that parcel UT0216-066 is located within USFWS proposed Gunnison sage-grouse habitat and the parcel would be deferred from leasing. No comments were received from other private surface owners.

5.3 Summary of Public Participation

The BLM posted the Proposed Action on the BLM ePlanning NEPA Register (https://www.blm.gov/epl-front-office/eplanning) on May 28, 2015, to notify the public of the proposal and to accept comments. The BLM also submitted a press release to the Moab *Times Independent* and the Monticello *San Juan Record* newspapers, which were published on June 4, 2015 and June 3, 2015, respectively. The 30-day public scoping period ended on June 27, 2015. Refer to **Appendix F** for a summary of the scoping comments and BLM response.

A public review and comment period for the draft EA and unsigned FONSI is being offered from September 18, 2015 to October 19, 2015.

5.3.1 Modifications Based on Public Comment and Internal Review

Reserved

5.3.2 Response to Public Comment

Reserved

5.4 List of Preparers

Table 5-2 lists the preparers of this EA.

Table 5-2: List of Preparers

Name	Office	Responsible for the Following Section(s) of this Document or Determination and Rationale in the ID Team Checklist (Appendix D)
Kim Allison	MbFO	Livestock Grazing, Rangeland Health Standards, Vegetation Excluding USFWS Designated Species
Ann Marie Aubry	MbFO	Greenhouse Gas Emissions / Climate Change, Floodplains, Soils, Surface Water Resources / Quality, Wetlands / Riparian Zones

Name	Office	Responsible for the Following Section(s) of this Document or Determination and Rationale in the ID Team Checklist (Appendix D)
Jordan Davis	MbFO	Invasive Species / Noxious Weeds, Woodland / Forestry
Jan Denney	MbFO	Lands / Access
Rebecca Hunt-Foster	MbFO	Paleontology
Cliff Giffen	MtFO	MtFO Project Lead, Air Quality
Leonard Herr	UTSO	Air Quality, Greenhouse Gas Emissions / Climate Change
Don Montoya	MbFO	Cultural Resources, Native American Religious Concerns
Josh Relph	MbFO	Fuels / Fire Management
Pam Riddle	MbFO	Fish and Wildlife Excluding USFWS Designated Species, Migratory Birds / Raptors, Utah BLM Sensitive Species, Threatened, Endangered or Candidate Animal Species
Doug Rowles	MbFO	MbFO & CCDO Project Lead, Geology / Mineral Resources / Energy Production, Wastes (hazardous or solid), Groundwater Resources / Quality
Colin Schwartz	UTSO	Greenhouse Gas Emissions / Climate Change
Bill Stevens	MbFO	BLM Natural Areas, Environmental Justice, Socio-Economics, Wilderness / WSA, Lands with Wilderness Characteristics,
Katie Stevens	MbFO	Area of Critical Environmental Concern, Recreation, Wild and Scenic Rivers, Visual Resources
Dave Williams	MbFO	Threatened, Endangered or Candidate Plant Species

6.0 REFERENCES, ACRONYMS AND APPENDICIES

6.1 References Cited

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6.2 List of Acronyms

ACEC	Areas of Critical Environmental Concern
APD	Application for Permit to Drill
AQRV	Air Quality Related Value
BCC	Birds of Conservation Concern
BIA	Bureau of Indian Affairs
BLM	Bureau of Land Management
BMP	Best Management Practice
CBL	Cement Bond Log
CCDO	Canyon Country District Office
CET	Cement Evaluation Tool
CFR	Code of Federal Regulations
CIAA	Cumulative Impact Analysis Area
COA	Conditions of Approval
CSU	Controlled Surface Use
DR	Decision Record
EA	Environmental Assessment
EI	Emissions Inventory
EIS	Environmental Impact Statement
EOI	Expressions of Interest
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FLPMA	Federal Land Policy and Management Act of 1976
FONSI	Finding of No Significant Impact
FOOGLRA	Federal Onshore Oil and Gas Leasing Reform Act
GAO	General Approval Order
ID	Interdisciplinary
IDPR	Interdisciplinary Parcel Review
IM	Instruction Memorandum
MBTA	Migratory Bird Treaty Act of 1918
MbFO	Moab BLM Field Office
MLA	Mineral Leasing Act
MLP	Master Leasing Plan
MtFO	Monticello BLM Field Office
MOU	Memorandum of Understanding
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NSO	No Surface Occupancy
ppb	Parts per Billion
PRMP	Proposed Resource Management Plan and Final Environmental Impact Statement
RFD	Reasonably Foreseeable Development
ROD	Record of Decision
RMP	Resource Management Plan

SHPO	State Historic Preservation Office
SMA	Surface Management Agency
SUWA	Southern Utah Wilderness Alliance
TL	Timing Limitation
tpy	Tons per Year
UDAQ	Utah Division of Air Quality
UDWR	Utah Division of Wildlife Resources
UPIF	Utah Partners in Flight
USFWS	United States Fish and Wildlife Service
UTSO	Utah State Office
VOC	Volatile Organic Compound
WO	Washington Office

Appendix A

Parcel List, Stipulations and Notices

List of Lands

UT0216 - 001
T. 21 S., R. 19 E., Salt Lake
Sec. 5: Lot 4;
Sec. 6: Lots 5, 6, 7, SESW, S2SE.
271.20 Acres
Grand County, Utah
Moab Field Office

STIPULATIONS

UT-S-01:	Air Quality
UT-S-108:	TL – 30% Slopes or Greater - Bookcliffs
UT-S-109:	TL – Fragile Soils/Slopes - Mancos Shale
UT-S-122:	NSO – Floodplains, Riparian Areas, Springs, and Public Water Resources
UT-S-229:	TL – Crucial Deer and Elk Winter Range
UT-S-272:	CSU/TL – Burrowing Owl and Ferruginous Hawk Nesting
UT-S-275:	CSU/TL – Bald Eagles
UT-S-298:	CSU – Kit Fox
UT-S-340:	CSU/TL – Mexican Spotted Owl Habitat and Nest Sites
UT-S-341:	CSU/TL – Southwestern Willow Flycatcher Habitat

NOTICES

UT-LN-15:	Pronghorn Fawning
UT-LN-21:	Bighorn Sheep Habitat
UT-LN-44:	Raptors
UT-LN-45:	Migratory Bird
UT-LN-49:	Utah Sensitive Species
UT-LN-67:	Historical and Cultural Resource Values
UT-LN-68:	Notification & Consultation Regarding Cultural Resources
UT-LN-96:	Air Quality Mitigation Measures
UT-LN-99:	Regional Ozone Formation Controls
UT-LN-102:	Air Quality Analysis
T&E-6:	Mexican Spotted Owl
T&E-11:	California Condor

UT0216 - 002
T. 21 S., R. 19 E., Salt Lake
Sec. 7: Lots 1-8, S2NE, E2W2, SE;
Sec. 18: Lots 2-8, E2, E2W2;
Sec. 19: All.
2,161.48 Acres
Grand County, Utah
Moab Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-108: TL – 30% Slopes or Greater - Bookcliffs
UT-S-109: TL – Fragile Soils/Slopes - Mancos Shale
UT-S-122: NSO – Floodplains, Riparian Areas, Springs, and Public Water Resources
UT-S-229: TL – Crucial Deer and Elk Winter Range
UT-S-272: CSU/TL – Burrowing Owl and Ferruginous Hawk Nesting
UT-S-275: CSU/TL – Bald Eagles
UT-S-298: CSU – Kit Fox
UT-S-340: CSU/TL – Mexican Spotted Owl Habitat and Nest Sites
UT-S-341: CSU/TL – Southwestern Willow Flycatcher Habitat

NOTICES

UT-LN-15: Pronghorn Fawning
UT-LN-21: Bighorn Sheep Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-69: High Potential for Cultural Resources
UT-LN-70: High Potential for Cultural Resource Occurrence
UT-LN-72: High Potential Paleontological Resources
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
T&E-6: Mexican Spotted Owl
T&E-11: California Condor

UT0216 - 003

T. 21 S., R. 19 E., Salt Lake
Sec. 8: SWNW, W2SENW, SW, W2W2SE;
Sec. 9: E2NESE, E2SWSE, SESE;
Sec. 10: S2NE, E2SENW, S2;
Sec. 15: All.
1,400.00 Acres
Grand County, Utah
Moab Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-108: TL – 30% Slopes or Greater - Bookcliffs
UT-S-109: TL – Fragile Soils/Slopes - Mancos Shale
UT-S-122: NSO – Floodplains, Riparian Areas, Springs, and Public Water Resources
UT-S-229: TL – Crucial Deer and Elk Winter Range
UT-S-272: CSU/TL – Burrowing Owl and Ferruginous Hawk Nesting
UT-S-275: CSU/TL – Bald Eagles
UT-S-298: CSU – Kit Fox

UT-S-340: CSU/TL – Mexican Spotted Owl Habitat and Nest Sites
UT-S-341: CSU/TL – Southwestern Willow Flycatcher Habitat

NOTICES
UT-LN-15: Pronghorn Fawning
UT-LN-21: Bighorn Sheep Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-69: High Potential for Cultural Resources
UT-LN-70: High Potential for Cultural Resource Occurrence
UT-LN-72: High Potential Paleontological Resources
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
T&E-6: Mexican Spotted Owl
T&E-11: California Condor

UT0216 - 004
T. 21 S., R. 19 E., Salt Lake
Sec. 11: SWNW, W2SW;
Sec. 13: Lots 2-4, S2SW, W2SE;
Sec. 14: W2NW, SW, S2SE;
Sec. 17: S2SE.
799.83 Acres
Grand County, Utah
Moab Field Office

STIPULATIONS
UT-S-01: Air Quality
UT-S-108: TL – 30% Slopes or Greater - Bookcliffs
UT-S-109: TL – Fragile Soils/Slopes - Mancos Shale
UT-S-122: NSO – Floodplains, Riparian Areas, Springs, and Public Water Resources
UT-S-224: TL – Pronghorn Fawning Grounds
UT-S-229: TL – Crucial Deer and Elk Winter Range
UT-S-272: CSU/TL – Burrowing Owl and Ferruginous Hawk Nesting
UT-S-273: CSU/TL – Golden Eagle Nesting Sites and Territories
UT-S-275: CSU/TL – Bald Eagles
UT-S-298: CSU – Kit Fox
UT-S-317: Unit Joinder – Crescent Unit Agreement UTU88212X
UT-S-340: CSU/TL – Mexican Spotted Owl Habitat and Nest Sites

NOTICES
UT-LN-15: Pronghorn Fawning
UT-LN-21: Bighorn Sheep Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog

UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-67: Historical and Cultural Resource Values
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
T&E-6: Mexican Spotted Owl
T&E-11: California Condor

UT0216 - 005
T. 22 S., R. 19 E., Salt Lake
Sec. 21: W2;
Sec. 28: N2, NWSW.
680.00 Acres
Grand County, Utah
Moab Field Office

STIPULATIONS
UT-S-01: Air Quality
UT-S-109: TL – Fragile Soils/Slopes - Mancos Shale
UT-S-122: NSO – Floodplains, Riparian Areas, Springs, and Public Water Resources
UT-S-167: CSU – Visual Resources - Scenic Driving Corridors
UT-S-272: CSU/TL – Burrowing Owl and Ferruginous Hawk Nesting
UT-S-298: CSU – Kit Fox

NOTICES
UT-LN-15: Pronghorn Fawning
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-67: Historical and Cultural Resource Values
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-72: High Potential Paleontological Resources
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
T&E-11: California Condor

UT0216 - 063
T. 30 S., R. 26 E., Salt Lake
Sec. 29: All;
Sec. 30: N2, N2S2, SESW, SESE;
Sec. 31: SWSW, SWSE.
1,280.00 Acres

San Juan County, Utah
Moab Field Office

STIPULATIONS

UT-S-01:	Air Quality
UT-S-122:	NSO – Floodplains, Riparian Areas, Springs, and Public Water Resources
UT-S-229:	TL – Crucial Deer and Elk Winter Range
UT-S-272:	CSU/TL – Burrowing Owl and Ferruginous Hawk Nesting
UT-S-275:	CSU/TL – Bald Eagles
UT-S-298:	CSU – Kit Fox
UT-S-329:	CSU – Slopes Greater than 30%
UT-S-340:	CSU/TL – Mexican Spotted Owl Habitat and Nest Sites

NOTICES

UT-LN-25:	White-Tailed and Gunnison Prairie Dog
UT-LN-44:	Raptors
UT-LN-45:	Migratory Bird
UT-LN-49:	Utah Sensitive Species
UT-LN-65:	Old Spanish Trail
UT-LN-69:	High Potential for Cultural Resources
UT-LN-70:	High Potential for Cultural Resource Occurrence
UT-LN-72:	High Potential Paleontological Resources
UT-LN-96:	Air Quality Mitigation Measures
UT-LN-99:	Regional Ozone Formation Controls
UT-LN-102:	Air Quality Analysis
T&E-6:	Mexican Spotted Owl
T&E-11:	California Condor

UT0216 - 064

T. 31 S., R. 26 E., Salt Lake
Secs. 4 and 5: All;
Sec. 6: Lots 1-3, S2SW.
1,528.71 Acres
San Juan County, Utah
Moab Field Office

STIPULATIONS

UT-S-01:	Air Quality
UT-S-109:	TL – Fragile Soils/Slopes - Mancos Shale
UT-S-122:	NSO – Floodplains, Riparian Areas, Springs, and Public Water Resources
UT-S-229:	TL – Crucial Deer and Elk Winter Range
UT-S-272:	CSU/TL – Burrowing Owl and Ferruginous Hawk Nesting
UT-S-275:	CSU/TL – Bald Eagles
UT-S-298:	CSU – Kit Fox
UT-S-329:	CSU – Slopes Greater than 30%

UT-S-340: CSU/TL – Mexican Spotted Owl Habitat and Nest Sites

NOTICES

UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-65: Old Spanish Trail
UT-LN-69: High Potential for Cultural Resources
UT-LN-70: High Potential for Cultural Resource Occurrence
UT-LN-72: High Potential Paleontological Resources
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
T&E-6: Mexican Spotted Owl
T&E-11: California Condor

Stipulations and Lease Notices

The following stipulations will be attached to all parcels regardless of surface ownership:

1. In conformance with WO IM No. 2005-003: **Cultural Resources Stipulation**

   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.

2. In conformance with WO IM No. 2002-174: **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.

3. As required by the Moab RMP (MIN-13, pg. 75) Air Quality Stipulation **UT-S-01**:

   All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower shall not emit more than 2 grams of NOx per horsepower-hour.
   Exception: This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
   Modification: None
   Waiver: None
   AND
   All new and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gram of NOx per horsepower-hour.
   Exception: None
   Modification: None
   Waiver: None

The following lease stipulations are required by RMPs and BLM policy requirements.

UT-S-01

AIR QUALITY

All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower shall not emit more than 2 grams of NO_x per horsepower-hour.

Exception: This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.

Modification: None

Waiver: None

AND

All new and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gram of NO_x per horsepower-hour.

Exception: None

Modification: None

Waiver: None

UT-S-108

TIMING LIMITATION – 30% SLOPES OR GREATER – BOOKCLIFFS

No surface-disturbing activities are allowed from **November 1 to April 30** where slopes are greater than 30% in the Bookcliffs to minimize watershed damage in fragile soils on steep slopes. This restriction includes heavy equipment traffic on existing roads associated with drilling operations.

Exception: An exception could be granted if the operator can provide a plan of development demonstrating that the Proposed Action would be properly designed and constructed to support the anticipated types and levels of use. Roads must be designed to meet BLM road standards for drainage control and surfaced to support heavy equipment and tractor trailers. Adjustments to the timing restriction could be considered by the authorized officer on a case-by-case basis, depending on current soil and weather conditions.

Modification: None

Waiver: None

UT-S-109

TIMING LIMITATION – FRAGILE SOILS – MANCOS SHALE

No surface-disturbing activities allowed during **December 1 to May 31** to minimize watershed damage including compaction, rutting, and topsoil loss on saline soils derived from the Mancos Shale. This restriction includes heavy equipment traffic on existing roads associated with drilling operations.

Exception: An exception could be granted if the operator can provide a plan of development demonstrating that the Proposed Action would be properly designed and constructed to support the anticipated types and levels of use. Roads must be designed to meet BLM road standards for drainage control and surfaced to support heavy equipment and tractor trailers. Adjustments to the timing restriction could be considered by the authorized officer on a case-by-case basis, depending on current soil and weather conditions.

Modification: None

Waiver: None

UT-S-122

NO SURFACE OCCUPANCY – FLOODPLAINS, RIPARIAN AREAS, SPRINGS, AND PUBLIC WATER RESOURCES

No surface-disturbing activities within 100 year floodplains or within 100 meters of riparian areas. Also, no surface-disturbing activities within public water reserves or within 100 meters of springs.

Exception: An exception could be authorized if: (a) there are no practical alternatives, (b) impacts could be fully mitigated, or (c) the action is designed to benefit and enhance the resource values.

Modification: None

Waiver: None

UT-S-167

CONTROLLED SURFACE USE – VRM II SCENIC DRIVING CORRIDORS HIGHWAYS 128, 279, 313, NORTH US 191; NEEDLES ANTICLINE AND KANE CREEK ROADS

Surface-disturbing activities within scenic driving corridors must meet VRM II class objectives within 0.5 miles of the scenic driving corridors.

Exception: An exception could be granted if: (a) a viewshed analysis indicates no impairment of the visual resources from the driving corridor or (b) the action is determined to be consistent and compatible with protection or enhancement of the resource values or the use would provide suitable opportunities for public enjoyment of these resources.

Modification: None

Waiver: None

UT-S-224

TIMING LIMITATION – PRONGHORN FAWNING GROUNDS

No surface-disturbing activities from **May 1 to June 15** within Cisco Desert and Hatch Point pronghorn fawning grounds to minimize stress and disturbance during critical pronghorn birthing time.

Exception: May be granted to these dates by the authorized officer if the operator submits a plan which demonstrates that impacts from the Proposed Action can be adequately mitigated or if it is determined the habitat is not being utilized for fawning in any given year.

Modification: The authorized officer may modify the boundaries of the stipulation area if a portion of the area is not being used as fawning grounds or if habitat is being utilized outside of stipulation boundaries as crucial fawning grounds and needs to be protected.

Waiver: May be granted if the fawning grounds are determined to be unsuitable or unoccupied and there is no reasonable likelihood of future use of the fawning grounds.

UT-S-229

TIMING LIMITATION – CRUCIAL DEER AND ELK WINTER RANGE

No surface disturbing activities from **November 15 to April 15** within crucial deer and/or elk winter range to minimize stress and disturbance to deer and elk during critical winter months.

Exception: This stipulation does not apply to the maintenance and operation of existing and ongoing facilities. An exception may be granted by the authorized officer if the operator submits a plan which demonstrates that impacts from the Proposed Action can be adequately mitigated or it is determined the habitat is not being utilized during the winter period for any given year.

Modification: The authorized officer may modify the boundaries of the stipulation area (1) if a portion of the area is not being used as winter range by deer/elk or (2) if habitat is being utilized outside of stipulation boundaries as winter range and needs to be protected or (3) if the migration patterns have changed causing a difference in the season of use.

Waiver: May be granted if the winter range habitat is unsuitable or unoccupied during winter months by deer/elk and there is no reasonable likelihood of future winter range use.

UT-S-272

CONDITIONAL SURFACE USE/TIMING LIMITATION – BURROWING OWL AND FERRUGINOUS HAWK NESTING

No surface disturbances or occupancy will be conducted during the breeding and nesting season (March 1 to August 31 for burrowing owl and March 1 – August 1 for ferruginous hawk) within spatial buffers (0.25 mile for burrowing owl and 0.5 mile for ferruginous hawk) of known nesting sites.

Exception: An exception would be granted if protocol surveys determine that nesting sites, breeding territories, and winter roosting areas are not occupied.

Modification: The authorized officer may modify the boundaries of the stipulation area if portions of the area do not include habitat or are outside the current defined area, as determined by the BLM.

Waiver: May be granted if it is determined the habitat no longer exists or has been destroyed.

UT-S-273

CONDITIONAL SURFACE USE AND TIMING LIMITATION – GOLDEN EAGLE NESTING SITES AND TERRITORIES

No surface-disturbing activities will be allowed within a 0.5 miles radius of documented Golden Eagle nest sites within nesting territories from February 1 to July 15th or until fledgling and dispersal of young. Any access created by the action will be outside of nesting season and will be eliminated once action is complete.

Exception: An exception may be granted by the authorized officer if authorization is obtained from USFWS and UDWR. The authorized officer may also grant an exception if an environmental analysis indicates that the nature or the conduct of the actions, as proposed or conditioned, would not impair the primary constituent element determined necessary for the survival and recovery of the Golden Eagle.

Modification: The authorized officer may modify the boundaries of the stipulation area if an environmental analysis indicates and USFWS and UDWR determine a portion of the area is not being used as Golden Eagle nesting territories.

Waiver: A waiver may be granted if an individual Golden Eagle nest has been inactive (unoccupied) for at least a period of 3 years. Nest-monitoring data for a 3-year period would be required before the waiver could be granted.

UT-S-275

CONTROLLED SURFACE USE /TIMING LIMITATION – BALD EAGLES

Bald eagles would be protected as outlined in the Bald Eagle Protection Act of 1940 (16 U.S.C. 668-668d, 54 Stat. 250, as amended). Activities on BLM lands that contain nesting or winter roosting habitat for the Bald Eagle would be avoided or restricted, depending on the duration and timing of the activity. Bald eagles would be managed according to the Best Management Practices for Raptors and their Associated Habitats in Utah (BLM 2006c). These management requirements would include restrictions and avoidance measures, including required surveys prior to activity, possible monitoring during the activity, implementation of seasonal and spatial buffers during the breeding season (January 1–August

31), and avoidance of disturbance in riparian areas unless impracticable. No future ground-disturbing activities would be authorized within a 1.0-mile radius of known Bald Eagle nest sites year-round. Deviations may be allowed only after appropriate levels of consultation and coordination with the USFWS/UDWR. In addition, no permanent above-ground structures would be allowed within a 0.50-mile radius of a winter roost site if the structure would result in the habitat becoming unsuitable for future winter roosting by Bald Eagles.

These requirements would help to mitigate the adverse impacts of human disturbance on Bald Eagles during breeding and roosting seasons.

1. Surveys will be required prior to operations unless species occupancy and distribution information is complete and available. All surveys must be conducted by qualified individual(s), and be conducted according to protocol.
2. Lease activities will require monitoring throughout the duration of the project. To ensure desired results are being achieved, minimization measures would be evaluated.
3. Water production will be managed to ensure maintenance or enhancement of riparian habitat.
4. Temporary activities within 1.0 mile of nest sites will not occur during the breeding season of **January 1 to August 31**, unless the area has been surveyed according to protocol and determined to be unoccupied.
5. Temporary activities within O.5 miles of winter roost areas, e.g., cottonwood galleries, will not occur during the winter roost season of **November 1 to March 31**, unless the area has been surveyed according to protocol and determined to be unoccupied.
6. No permanent infrastructure will be placed within 1.0 mile of nest sites.
7. No permanent infrastructure will be placed within 0.5 miles of winter roost areas.
8. Remove big game carrion within 100 feet of lease roadways occurring within Bald Eagle foraging range.
9. Avoid loss or disturbance to large cottonwood gallery riparian habitats.
10. Where technically and economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and eliminate drilling in suitable habitat. Utilize direction drilling to avoid direct impacts to large cottonwood gallery riparian habitats. Ensure that such direction drilling does not intercept or degrade alluvial aquifers.
11. All areas of surface disturbance within riparian areas and/or adjacent uplands should be re-vegetated with native species.

Additional measures may also be employed to avoid or minimize effects to the species between the lease stage and lease development stage. These additional measures will be developed and implemented in coordination with the USFWS/UDWR to ensure continued compliance with the Bald Eagle Protection Act.

Exception: An exception may be granted by the authorized officer if authorization is obtained from USFWS/UDWR. The authorized officer may also grant an exception if an analysis indicates that the nature of the conduct of the actions, as proposed or conditioned, would not impair the habitat and physical requirements determined necessary for the survival of the Bald Eagles.

Modification: The authorized officer may modify the boundaries of the stipulation area if an analysis indicates, and USFWS/UDWR determines that a portion of the area is not being used as Bald Eagle nesting or roosting territories or if additional nesting or roosting territories are identified.

Waiver: May be granted if there is no reasonable likelihood of site occupancy over a minimum 10 year period.

UT-S-298

CONDITIONAL SURFACE USE – KIT FOX

No surface disturbances within 200 meters of a kit fox den.

Exception: An exception could be granted if protocol surveys determine that kit fox dens are not present.

Modification: The authorized officer may modify the stipulation area if portions of the area do not contain habitat.

Waiver: A waiver may be granted if it is determined that the habitat no longer exists.

UT-S-329

CONTROLLED SURFACE USE – SLOPES GREATER THAN 30%

No surface-disturbing activities are allowed on slopes greater than 30% to minimize watershed damage throughout the Moab Planning Area in fragile soils. This restriction includes heavy equipment traffic on existing roads associated with drilling operations.

Purpose: To minimize watershed damage in fragile soils on steep slopes.

Exception: An exception could be granted if the operator can provide a plan of development demonstrating that the Proposed Action would be properly designed and constructed to support the anticipated types and levels of use. Roads must be designed to meet BLM road standards for drainage control and surfaced to support heavy equipment and tractor trailers. Adjustments to the timing restriction could be considered by the Authorized Officer on a case-by-case basis, depending on current soil and weather conditions.

Modification: None

Waiver: None

UT-S-340
CONTROLLED SURFACE USE/TIMING LIMITATION – MEXICAN SPOTTED OWL HABITAT AND NEST SITES

In areas that contain suitable habitat for MSO or designated Critical Habitat, actions will be avoided or restricted that may cause stress and disturbance during nesting and rearing of their young. Appropriate measures will depend on whether the action is temporary or permanent and whether it occurs within or outside the owl nesting season. A temporary action is completed prior to the following breeding season leaving no permanent structures and resulting in no permanent habitat loss. A permanent action continues for more than one breeding season and/or causes a loss of owl habitat or displaces owls through disturbances, i.e., creation of a permanent structure. Current avoidance and minimization measures include the following:

1. Surveys will be required prior to implementation of the Proposed Action. All surveys must be conducted by qualified individual(s) acceptable to the BLM.
2. Assess habitat suitability for both nesting and foraging using accepted habitat models in conjunction with field reviews. Apply the conservation measures below if project activities occur within 0.5 mile of suitable owl habitat. Determine potential effects of actions to owls and their habitat.
    a. Document type of activity, acreage and location of direct habitat impacts, type and extent of indirect impacts relative to location of suitable owl habitat.
    b. Document if action is temporary or permanent.
3. Lease activities will require monitoring throughout the duration of the project. To ensure desired results are being achieved, minimization measures will be evaluated, and, if necessary, Section 7 consultation reinitiated.
4. Any activity that includes water production will be managed to ensure maintenance or enhancement of riparian habitat.

5. Where technically and economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and eliminate drilling in canyon habitat suitable for MSO nesting.
6. For all temporary actions that may impact owls or suitable habitat:
    a. If the action occurs entirely outside of the owl breeding season from **March 1 through August 31**, and leaves no permanent structure or permanent habitat disturbance, the action can proceed without an occupancy survey.
    b. If the action will occur during a breeding season, a survey for owls is required prior to commencing the activity. If owls are found, the activity shall be delayed until outside of the breeding season.
    c. Rehabilitate access routes created by the project through such means as raking out scars, re-vegetation, gating access points, etc.
7. For all permanent actions that may impact owls or suitable habitat:
    a. Survey two consecutive years for owls according to accepted protocol prior to commencing activities.
    b. If owls are found, no disturbing actions will occur within 0.5 mile of an identified site. If nest site is unknown, no activity will occur within the designated current and historic Protected Activity Center (PAC).
    c. Avoid permanent structures within 0.5 mile of suitable habitat unless surveyed and not occupied.
    d. Reduce noise emissions (e.g., use hospital-grade mufflers) to 45 dBA at 0.5 mile from suitable habitat, including canyon rims. Placement of permanent noise-generating facilities should be contingent upon a noise analysis to ensure noise does not encroach upon a 0.5 mile buffer for suitable habitat, including canyon rims.
    e. Limit disturbances to and within suitable habitat by staying on designated and/or approved routes.
    f. Limit new access routes created by the project.

Additional measures to avoid or minimize effects to the species may be developed and implemented in consultation with the U.S. Fish and Wildlife Service between the lease sale stage and lease development stage to ensure continued compliance with the ESA.
Modifications to the Surface Use Plan of Operations may be required in order to protect the MSO and/or habitat in accordance with Section 6 of the lease terms, the Endangered Species Act, and the regulations at 43 CFR 3101.1-2.
Exception: An exception may be granted by the Authorized Officer if authorization is obtained from USFWS (through applicable provisions of the ESA). The Authorized Officer may also grant an exception if an environmental analysis indicates that the nature or the conduct of the actions would not impair the primary constituent element determined necessary for the survival and recovery of the MSO and USFWS concurs with this determination.
Modification: The Authorized Officer may modify the boundaries of the stipulation area if an environmental analysis indicates and USFWS (through applicable provisions of the ESA) determines a portion of the area is not being used as Critical Habitat.
Waiver: A waiver may be granted if the MSO is de-listed and the Critical Habitat is determined by USFWS as not necessary for the survival and recovery of the MSO.

UT-S-341
CONTROLLED SURFACE USE/TIMING LIMITATION – SOUTHWESTERN WILLOW FLYCATCHER HABITAT

In areas that contain riparian habitat within the range for the Southwestern willow flycatcher, actions will be avoided or restricted that may cause stress and disturbance during nesting and rearing of their young.

Appropriate measures will depend on whether the action is temporary or permanent, and whether it occurs within or outside the nesting season. A temporary action is completed prior to the following breeding season leaving no permanent structures and resulting in no permanent habitat loss. A permanent action continues for more than one breeding season and/or causes a loss of habitat or displaces flycatchers through disturbances, i.e., creation of a permanent structure. The following avoidance and minimization measures have been designed to ensure activities carried out on the lease are in compliance with the Endangered Species Act. Integration of, and adherence to these measures, will facilitate review and analysis of any submitted permits under the authority of this lease. Following these measures could reduce the scope of Endangered Species Act, Section 7 consultation at the permit stage.
Current avoidance and minimization measures include the following:

1. Surveys will be required prior to operations unless species occupancy and distribution information is complete and available. All surveys must be conducted by qualified individual(s) and be conducted according to protocol.
2. Activities will require monitoring throughout the duration of the project. To ensure desired results are being achieved, minimization measures will be evaluated and, if necessary, Section 7 consultation reinitiated.
3. Water production will be managed to ensure maintenance or enhancement of riparian habitat.
4. Where technically and economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and eliminate drilling in suitable riparian habitat. Ensure that such directional drilling does not intercept or degrade alluvial aquifers.
5. Activities will maintain a 300 feet buffer from suitable riparian habitat year long.
6. Activities within 0.25 mile of occupied breeding habitat will not occur during the breeding season of **May 1 to August 15**.
7. Ensure that water extraction or disposal practices do not result in change of hydrologic regime that will result in loss or degradation of riparian habitat.
8. Re-vegetate with native species all areas of surface disturbance within riparian areas and/or adjacent land.

Additional measures to avoid or minimize effects to the species may be developed and implemented in consultation with the USFWS between the lease sale stage and lease development stage to ensure continued compliance with the ESA.
Exception: An exception may be granted by the Authorized Officer if authorization is obtained from USFWS (through applicable provisions of the ESA). The Authorized Officer may also grant an exception if an environmental analysis indicates that the nature of the conduct of the actions, as proposed or conditioned, will not impair the primary constituent element determined necessary for the survival and recovery of the southwestern willow flycatcher and USFWS concurs with this determination.
Modification: The Authorized Officer may modify the boundaries of the stipulation area if an environmental analysis indicates, and USFWS (through applicable provisions of the ESA) determines that a portion of the area is not being used as southwestern willow flycatcher habitat.
Waiver: May be granted if the southwestern willow flycatcher is de-listed and if USFWS determines it is not necessary for the survival and recovery of the southwestern willow flycatcher.

The following stipulation is applied to parcel UT0216-004 by BLM policy:

UT-S-317
UNIT JOINDER

The successful bidder will be required to join the Crescent Unit Agreement or show reason why a joinder should not be required.

The following lease notices will be attached to all parcels regardless of surface ownership:

1. **UT-LN-96** Air Quality Mitigation Measures:

   The lessee is given notice that the Bureau of Land Management (BLM) in coordination with the U.S. Environmental Protection Agency and the Utah Department of Air Quality, among others, have developed the following air quality mitigation measures that may be applied to any development proposed on this lease. Integration of and adherence to these measures may help minimize adverse local or regional air quality impacts from oil and gas development (including but not limited to construction, drilling, and production) on regional ozone formation.

   - *All internal combustion equipment would be kept in good working order.*
   - Water or other approved dust suppressants would be used at construction sites and along roads, as determined appropriate by the Authorized Officer.
   - Open burning of garbage or refuse would not occur at well sites or other facilities.
   - Drill rigs would be equipped with Tier II or better diesel engines.
   - Vent emissions from stock tanks and natural gas TEG dehydrators would be controlled by routing the emissions to a flare or similar control device which would reduce emissions by 95% or greater.
   - Low bleed or no bleed pneumatics would be installed on separator dump valves and other controllers.
   - During completion, flaring would be limited as much as possible. Production equipment and gathering lines would be installed as soon as possible.
   - Well site telemetry would be utilized as feasible for production operations.
   - Stationary internal combustion engine would comply with the following standards: 2g NOx/bhp-hr for engines <300HP; and 1g NOx/bhp-hr for engines >300HP.

   Additional site-specific measures may also be employed to avoid or minimize effects to local or regional air quality. These additional measures will be developed and implemented in coordination with the U.S. Environmental Protection Agency, the Utah Department of Air Quality, and other agencies with expertise or jurisdiction as appropriate based on the size of the project and magnitude of emissions.

2. **UT-LN-99** Regional Ozone Formation Controls:
   To mitigate any potential impact oil and gas development emissions may have on regional ozone formation, the following Best Management Practices (BMPs) would be required for any development projects:
   a. Tier II or better drilling rig engines
   b. Stationary internal combustion engine standard of 2g NOx/bhp-hr for engines <300HP and 1g NOx/bhp-hr for engines >300HP
   c. Low bleed or no bleed pneumatic pump valves
   d. Dehydrator VOC emission controls to +95% efficiency
   e. Tank VOC emission controls to +95% efficiency

3. **UT-LN-102** Air Quality Analysis:

   The lessee/operator is given notice that prior to project-specific approval, additional air quality analyses may be required to comply with the National Environmental Policy Act,

Federal Land Policy Management Act, and/or other applicable laws and regulations. Analyses may include dispersion modeling and/or photochemical modeling for deposition and visibility impacts analysis, control equipment determinations, and/or emission inventory development. These analyses may result in the imposition of additional project-specific air quality control measures.

The following lease notices are required by RMPs and BLM policy.

UT-LN-15
PRONGHORN FAWNING

The lessee/operator is given notice that lands in this lease have been identified as containing antelope fawning habitat. Exploration, drilling and other development activities may be restricted from May 1 through June 15 to protect antelope fawning. Modifications may be required in the Surface Use Plan of Operations including seasonal timing restrictions to protect the species and its habitat.

UT-LN-21
BIGHORN SHEEP HABITAT

The Lessee/Operator is given notice that the lands in this parcel contains habitat for desert bighorn sheep. Modifications to the surface use plan may be required in order to protect habitat from surface disturbing activities. These modifications may include such measures as timing restrictions to avoid surface use in bighorn sheep habitat during the crucial season (April 15 – June 15). Measure may also include avoidance of certain areas such as water sources and talus slopes.

UT-LN-25
WHITE-TAILED AND GUNNISON PRAIRIE DOG

The lessee/operator is given notice that this lease parcel has been identified as containing white-tailed or Gunnison prairie dog habitat. Modifications to the Surface Use Plan of Operations may be required in order to protect white-tailed or Gunnison prairie dog from surface disturbing activities in accordance with the Endangered Species Act and 43 CFR 3101.1-2.

UT-LN-44
RAPTORS

Appropriate seasonal and spatial buffers shall be placed on all known raptor nests in accordance with Utah Field Office Guidelines for Raptor Protection from Human and Land use Disturbances (USFWS 2002) and Best Management Practices for Raptors and their Associated Habitats in Utah (BLM 2006). All construction related activities will not occur within these buffers if pre-construction monitoring indicates the nests are active, unless a site specific evaluation for active nests is completed prior to construction and if a BLM wildlife biologist, in consultation with USFWS and UDWR, recommends that activities may be permitted within the buffer. The BLM will coordinate with the USFWS and UDWR and have a recommendation within 3-5 days of notification. Any construction activities authorized within a protective (spatial and seasonal) buffer for raptors will require an on-site monitor. Any indication that activities are adversely affecting the raptor and/or its' young the on-site monitor will suspend activities and contact the BLM Authorized Officer immediately. Construction may occur within the buffers of inactive nests. Construction activities may commence once monitoring of the active nest site determines that fledglings have left the nest and are no longer dependent on the nest site. Modifications to the Surface Use Plan of Operations may be required in accordance with section 6 of the lease terms and 43CFR3101.1-2.

UT-LN-45
MIGRATORY BIRD

The lessee/operator is given notice that surveys for nesting migratory birds may be required during migratory bird breeding season whenever surface disturbances and/or occupancy is proposed in association with fluid mineral exploration and development within priority habitats. Surveys should focus on identified priority bird species in Utah. Field surveys will be conducted as determined by the authorized officer of the Bureau of Land Management. Based on the result of the field survey, the authorized officer will determine appropriate buffers and timing limitations.

UT-LN-49
UTAH SENSITIVE SPECIES

The lessee/operator is given notice that no surface use or otherwise disruptive activity would be allowed that would result in direct disturbance to populations or individual special status plant and animal species, including those listed on the BLM sensitive species list and the Utah sensitive species list. The lessee/operator is also given notice that lands in this parcel have been identified as containing potential habitat for species on the Utah Sensitive Species List. Modifications to the Surface Use Plan of Operations may be required in order to protect these resources from surface disturbing activities in accordance with Section 6 of the lease terms, Endangered Species Act, Migratory Bird Treaty Act and 43 CFR 3101.1-2.

UT-LN-65
OLD SPANISH TRAIL

The lessee/operator is given notice that lands in this lease are crossed by the Old Spanish Trail National Historic Trail [Old Spanish Trail Recognition Act of 2002, (Old Spanish Trail PLO 107-325)]. Modifications to the Surface Use Plan of Operations may be required in order to protect the historic integrity of the trail. Coordination with the National Park Service may be necessary.

UT-LN-67
HISTORICAL AND CULTURAL RESOURCE VALUES

The lessee/operator is given notice that lands in this lease may contain significant Historical and Cultural Resources. Modifications to the Surface Use Plan of Operations may be required for the protection of these resources.

UT-LN-68
NOTIFICATION AND CONSULTATION REGARDING CULTURAL RESOURCES

The lease area may now or hereafter be found to contain historic properties and/or resources protected under the National Historic Preservation Act (NHPA), the Archaeological Resources Protections Act (ARPA), the Native American Graves Protection and Repatriation Act (NAGPRA), the American Indian Religious Freedom Act (AIRFA), other statues and Executive Order 13007, and which may be of concern to Native American tribes, interested parties, and the State Historic Preservation Officer (SHPO). BLM will not approve any ground disturbing activities as part of future lease operations until it completes applicable requirements of the National Historic Preservation Act (NHPA), including the completion of any required procedure for notification and consultation with appropriate tribe(s) and/or the SHPO. BLM may require modifications to exploration and development proposals to further its conservation and management objectives on BLM-approved activities that are determine to affect or impact historic or cultural properties and/or resources.

UT-LN-69
HIGH POTENTIAL FOR CULTURAL RESOURCES

This parcel is located in an area of high concentrations of cultural resources. Known cultural sites are fragile and many are buried under sandy deposits which migrate due to their susceptibility to wind. These sites, or large portions, are not visible from the surface. Therefore, the following mitigation measures may be applied to any surface disturbance of this parcel: 1) pre-surface disturbance cultural resource inventories; 2) pre-surface disturbance subsurface testing; 3) monitoring of ground disturbance; and 4) post-disturbance monitoring identifying resources as the soils stabilize around a project.

UT-LN-70
HIGH POTENTIAL FOR CULTURAL RESOURCE OCCURRENCE

The lessee/operator is given notice that lands in this lease contain significant Cultural Resources. Modifications to the Surface Use Plan of Operations may be required for the protection of these resources. Class III level block inventories may be required to determine resource location and possible impact to the resource.

UT-LN-72
HIGH POTENTIAL PALEONTOLOGICAL RESOURCES

The lessee/operator is given notice that lands in this lease have been identified as having high potential for paleontological resources. Planned projects should be consistent with BLM Manual and Handbook H8270-1, Chapter III (A) and III (B) to avoid areas where significant fossils are known or predicted to occur or to provide for other mitigation of possible adverse effects (RX, NF, ESR). Modifications to the Surface Use Plan of Operations may be required in order to protect paleontological resources from surface disturbing activities in accordance with Section 6 of the lease terms and 43 CFR 3101.1-2.

T&E-6
MEXICAN SPOTTED OWL

The Lessee/Operator is given notice that the lands in this parcel contain suitable habitat for Mexican spotted owl, a federally listed species. The Lessee/Operator is given notice that the lands in this lease contain Designated Critical Habitat for the Mexican spotted owl, a federally listed species. Critical habitat was designated for the Mexican spotted owl on August 31, 2004 (69 FR 53181-53298). Avoidance or use restrictions may be placed on portions of the lease. Application of appropriate measures will depend whether the action is temporary or permanent, and whether it occurs within or outside the owl nesting season.

A <u>temporary</u> action is completed prior to the following breeding season leaving no permanent structures and resulting in no permanent habitat loss. A <u>permanent</u> action continues for more than one breeding season and/or causes a loss of owl habitat or displaces owls through disturbances, i.e. creation of a permanent structure.

The following avoidance and minimization measures have been designed to ensure activities carried out on the lease are in compliance with the Endangered Species Act. Integration of, and adherence to these measures, will facilitate review and analysis of any submitted permits under the authority of this lease. Following these measures could reduce the scope of Endangered Species Act, Section 7 consultation at the permit stage. Current avoidance and minimization measures include the following:

1. Surveys will be required prior to operations unless species occupancy and distribution information is complete and available. All Surveys must be conducted by qualified individual(s).

2. Assess habitat suitability for both nesting and foraging using accepted habitat models in conjunction with field reviews. Apply the conservation measures below if project activities occur within 0.5 mile of suitable owl habitat. Determine potential effects of actions to owls and their habitat.
    a. Document type of activity, acreage and location of direct habitat impacts, type and extent of indirect impacts relative to location of suitable owl habitat.
    b. Document if action is temporary or permanent.
3. Lease activities will require monitoring throughout the duration of the project. To ensure desired results are being achieved, minimization measures will be evaluated and, if necessary, Section 7 consultation reinitiated.
4. Water production will be managed to ensure maintenance or enhancement of riparian habitat.
5. Where technically and economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and eliminate drilling in canyon habitat suitable for Mexican spotted owl nesting.
6. For all temporary actions that may impact owls or suitable habitat:
    a. If the action occurs entirely outside of the owl breeding season (March 1 – August 31), and leaves no permanent structure or permanent habitat disturbance, action can proceed without an occupancy survey.
    b. If action will occur during a breeding season, survey for owls prior to commencing activity. If owls are found, activity must be delayed until outside of the breeding season.
    c. Rehabilitate access routes created by the project through such means as raking out scars, re-vegetation, gating access points, etc.
7. For all permanent actions that may impact owls or suitable habitat:
    a. Survey two consecutive years for owls according to accepted protocol prior to commencing activities.
    b. If owls are found, no actions will occur within 0.5 mile of identified nest site. If nest site is unknown, no activity will occur within the designated Protected Activity Center (PAC).
    c. Avoid drilling and permanent structures within 0.5 mi of suitable habitat unless surveyed and not occupied.
    d. Reduce noise emissions (e.g., use hospital-grade mufflers) to 45 dBA at 0.5 mile from suitable habitat, including canyon rims. Placement of permanent noise-generating facilities should be determined by a noise analysis to ensure noise does not encroach upon a 0.5 mile buffer for suitable habitat, including canyon rims.
    e. Limit disturbances to and within suitable habitat by staying on approved routes.
    f. Limit new access routes created by the project.

Additional measures to avoid or minimize effects to the species may be developed and implemented in consultation with the U.S. Fish and Wildlife Service between the lease sale stage and lease development stage to ensure continued compliance with the Endangered Species Act.

T&E-11

CALIFORNIA CONDOR

The Lessee/Operator is given notice that the lands located in this parcel contain potential habitat for the California Condor, a federally listed species. Avoidance or use restrictions may be placed on portions of the lease if the area is known or suspected to be used by condors. Application of appropriate measures will depend on whether the action is temporary or permanent, and whether it occurs within or outside

potential habitat. A temporary action is completed prior to the following important season of use, leaving no permanent structures and resulting in no permanent habitat loss. This would include consideration for habitat functionality. A permanent action continues for more than one season of habitat use, and/or causes a loss of condor habitat function or displaces condors through continued disturbance (i.e. creation of a permanent structure requiring repetitious maintenance, or emits disruptive levels of noise).

The following avoidance and minimization measures have been designed to ensure activities carried out on the lease are in compliance with the Endangered Species Act. Integration of, and adherence to these measures will facilitate review and analysis of any submitted permits under the authority of this lease. Following these measures could reduce the scope of Endangered Species Act, Section 7 consultation at the permit stage. Current avoidance and minimization measures include the following:

1. Surveys will be required prior to operations unless species occupancy and distribution information is complete and available. All Surveys must be conducted by qualified individual(s) approved by the BLM, and must be conducted according to approved protocol.
2. If surveys result in positive identification of condor use, all lease activities will require monitoring throughout the duration of the project to ensure desired results of applied mitigation and protection. Minimization measures will be evaluated during development and, if necessary, Section 7 consultation may be reinitiated.
3. Temporary activities within 1.0 mile of nest sites will not occur during the breeding season.
4. Temporary activities within 0.5 miles of established roosting sites or areas will not occur during the season of use, August 1 to November 31, unless the area has been surveyed according to protocol and determined to be unoccupied.
5. No permanent infrastructure will be placed within 1.0 mile of nest sites.
6. No permanent infrastructure will be placed within 0.5 miles of established roosting sites or areas.
7. Remove big game carrion 100 feet from lease roadways occurring within foraging range.
8. Where technically and economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and eliminate drilling in suitable habitat. Utilize directional drilling to avoid direct impacts to large cottonwood gallery riparian habitats. Ensure that such directional drilling does not intercept or degrade alluvial aquifers.
9. Re-initiation of section 7 consultation with the Service will be sought immediately if mortality or disturbance to California condors is anticipated as a result of project activities. Additional site-specific measures may also be employed to avoid or minimize effects to the species. These additional measures will be developed and implemented in consultation with the U.S. Fish and Wildlife Service to ensure continued compliance with the ESA.

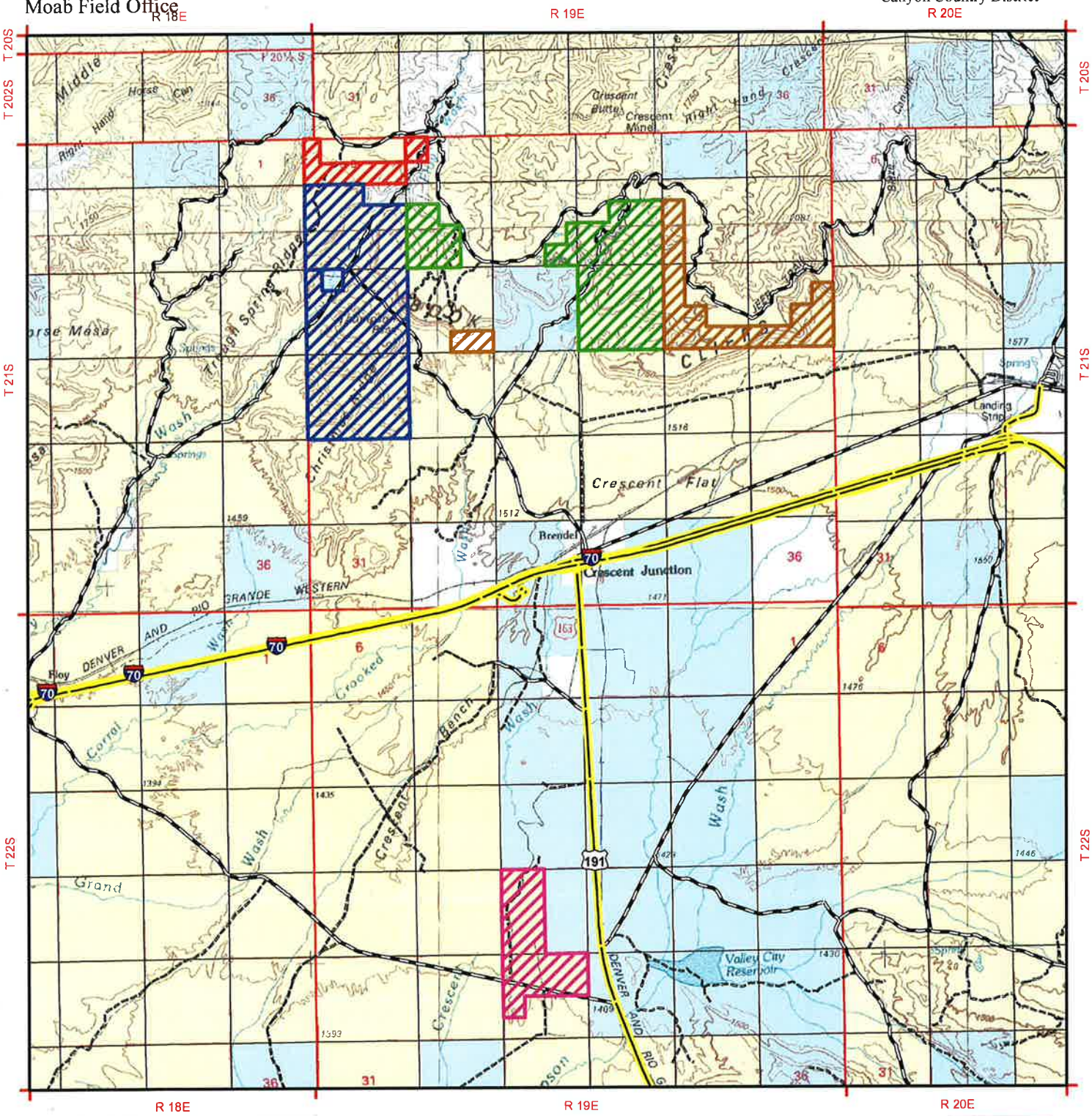
Additional measures may also be employed to avoid or minimize effects to the species between the lease sale and lease development stages. These additional measures will be developed and implemented in consultation with the U.S. Fish and Wildlife Service to ensure continued compliance with the Endangered Species Act.

Appendix B

Maps

FIGURE 1
February 2016 Competitive Oil and Gas Lease Sale
Moab Field Office

DOI-BLM-UT-Y010-2015-0186-EA
Bureau of Land Management
Canyon Country District



Location Map
Utah BLM Field Office Boundaries

Date: 5/20/2015

Legend

- UT-0216-001
- UT-0216-002
- UT-0216-003
- UT-0216-004
- UT-0216-005
- State and Federal Highways
- B Roads (Maintained)
- D Roads (Unmaintained)
- Township/Range
- Section
- Bureau of Land Management (BLM)
- Private
- State

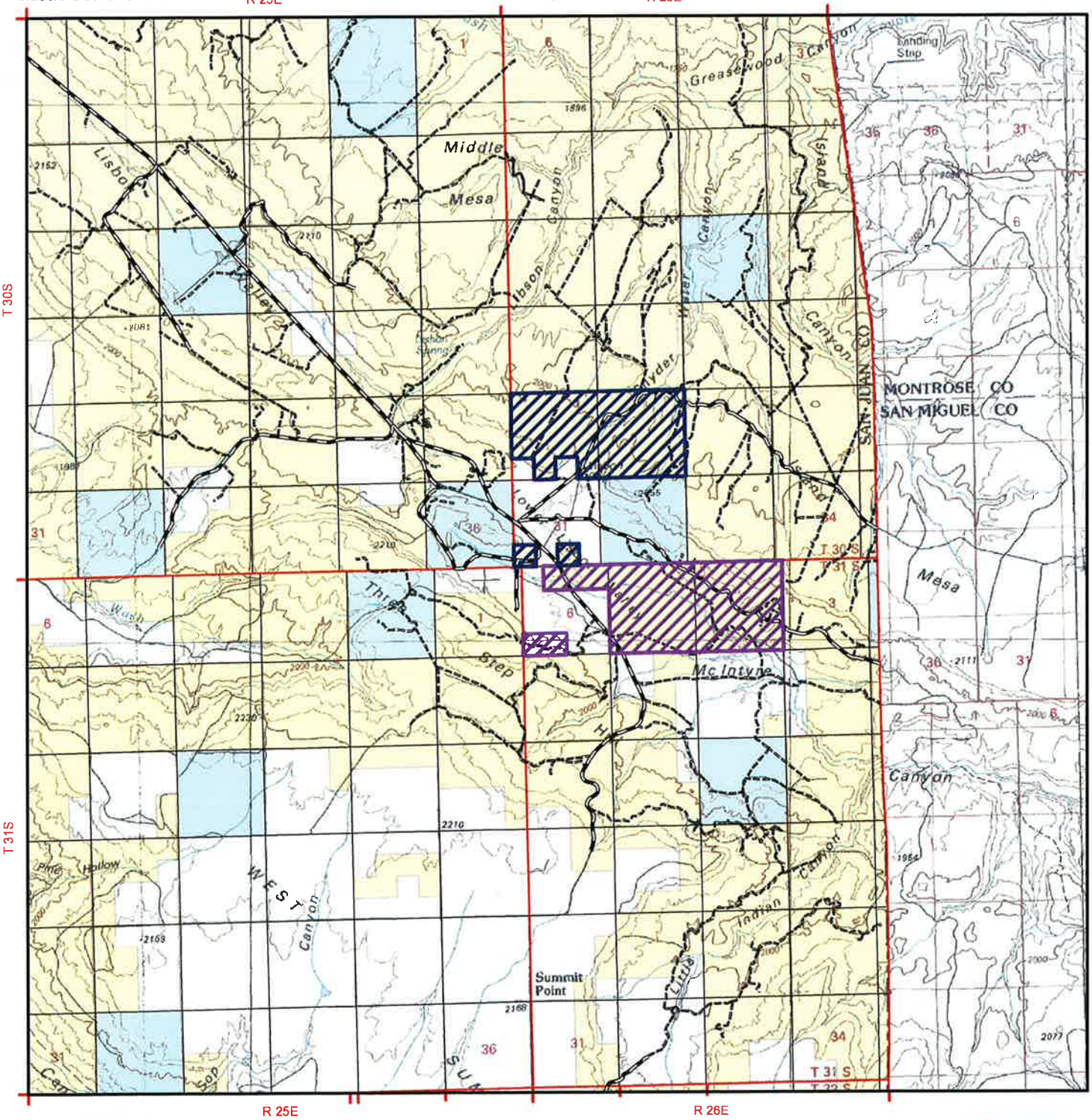
0 1 2 Kilometers
0 1 2 Miles

N W E S

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data.

FIGURE 2
February 2016 Competitive Oil and Gas Lease Sale
Moab Field Office

DOI-BLM-UT-Y010-2015-0186-EA
Bureau of Land Management
Canyon Country District



Location Map
Utah BLM Field Office Boundaries

Date: 5/20/2015

Legend

- UT-0216-063
- UT-0216-064
- State and Federal Highways
- B Roads (Maintained)
- D Roads (Unmaintained)
- Township/Range
- Section
- Bureau of Land Management (BLM)
- Private
- State

0 1 2 Kilometers
0 1 2 Miles

N W E S

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data.

Appendix C

Deferred Parcel List

List of Lands Recommended for Deferral and Justification

Thirteen (13) lease parcels (approximately 11,007 acres) were originally included on the preliminary list and proposed for inclusion in the February 2016 Notice of Competitive Oil and Gas Lease Sale. Six (6) parcels totaling approximately 2,885.78 acres are recommended for deferral. The reasons for deferral are:

- Three parcels (UT0216-026, UT0216-037 and UT0216-038) are split-estate with the surface owned by the Navajo Nation and administered by the BIA. The Navajo Nation and BIA do not concur with leasing the parcels.
- Two parcels (UT0216-065 and UT0216-066) occur within USFWS proposed Gunnison sage-grouse habitat.
- One parcel (UT0216-070) is located within the boundary of the San Juan MLP.

Parcel	Reason of Deferral
UT0216 - 026 T. 39 S., R. 22 E., Salt Lake Sec. 24: SESE (All Lands w/in Navajo Indian Reservation Wdl); Sec. 25: NE, E2NW, NESW, S2SW, SE (All Lands w/in Navajo Indian Res. Wdl). 356.52 Acres San Juan County, Utah Monticello Field Office	In a letter received on August 7, 2015, the Bureau of Indian Affairs and the Navajo Nation recommended that the parcels be excluded from the February 2016 lease sale.
UT0216 - 037 T. 38 S., R. 23 E., Salt Lake Sec. 33: All. 640.00 Acres San Juan County, Utah Monticello Field Office	In a letter received on August 7, 2015, the Bureau of Indian Affairs and the Navajo Nation recommended that the parcels be excluded from the February 2016 lease sale.
UT0216 - 038 T. 39 S., R. 23 E., Salt Lake Sec. 5: Lots 1, 2, S2NE, SE; Sec. 8: NE, S2. 799.31 Acres San Juan County, Utah Monticello Field Office	In a letter received on August 7, 2015, the Bureau of Indian Affairs and the Navajo Nation recommended that the parcels be excluded from the February 2016 lease sale.

Parcel	Reason of Deferral
UT0216 - 065 T. 34 S., R. 26 E., Salt Lake Sec. 3: S2NW; Sec. 5: Lot 4, S2NW; Sec. 9: N2NE; Sec. 10: NW; Sec. 11: All; Sec. 14: Lots 1, 2; Sec. 15: N2NE. 671.33 Acres San Juan County, Utah Monticello Field Office	Gunnison sage-grouse
UT0216 - 066 T. 34 S., R. 26 E., Salt Lake Sec. 19: N2SE; Sec. 20: NENE, SENW; Sec. 22: NESE; Sec. 35: Lot 1. 228.62 Acres San Juan County, Utah Monticello Field Office	Gunnison sage-grouse
UT0216 - 070 T. 36 S., R. 26 E., Salt Lake Sec. 10: Lot 1, NWNE, N2NW, SWNW. 190.00 Acres San Juan County, Utah Monticello Field Office	San Juan MLP

Appendix D

Interdisciplinary Team Checklist

INTERDISCIPLINARY TEAM CHECKLIST

Moab Field Office

Project Title: February 2016 Competitive Oil and Gas Lease Sale

NEPA Log Number: DOI-BLM-UT-Y010-2015-0186-EA

File/Serial Number: Not Applicable

Project Leader: Doug Rowles, Moab Field Office

DETERMINATION OF STAFF:

NP = not present in the area impacted by the proposed or alternative actions
NI = present, but not affected to a degree that detailed analysis is required
PI = present with potential for relevant impact that need to be analyzed in detail in the EA
NC = (DNAs only) actions and impacts not changed from those disclosed in the existing NEPA documents cited in Section D of the DNA form. The Rationale column may include NI and NP discussions.

RESOURCES AND ISSUES CONSIDERED (INCLUDES SUPPLEMENTAL AUTHORITIES APPENDIX 1 H-1790-1)

The following elements are not present in the Moab Field Office and have been removed from the checklist: Farmlands (Prime or Unique), Wild Horses and Burros.

Determi-nation	Resource	Rationale for Determination	Signature	Date
PI	Air Quality	The sale and issuance of an oil and gas lease is an administrative action that does not result in any surface disturbance. The lessee/operator would submit an APD when oil and gas exploration and development activities are proposed. The APD would be subject to site specific NEPA analysis. Both Grand and San Juan Counties are in attainment of the National Ambient Air Quality Standards (NAAQS) for all pollutants. Currently air quality in the area of the proposed leasing meets State Department of Environmental Quality Division of Air Quality Standards. Leasing would have no impact on air quality. However, there is some expectation that exploration could occur. Any ground disturbing activity would have to first be authorized as a lease operation but only through additional NEPA analysis. Activities which may be authorized on these parcels subsequent to the lease sale may produce emissions of regulated air pollutants and/or pollutants that could impact air quality related values in Class 1 areas. The construction, drilling, completion, testing, and production of an oil and gas well would result in emissions of pollutants that affect air quality. As required by the Moab RMP, lease stipulation UT-S-01 requiring engine emission standards would be attached to each lease. Lease notices UT-LN-96 (Air Quality Mitigation Measures), UT-LN-99 (ozone formation control) and UT-LN-102 (air quality analysis) will also be attached to each lease parcel. Impacts to air quality are analyzed in detail in Chapters 3	Cliff Giffen Leonard Herr	7/27/15

Determi-nation	Resource	Rationale for Determination	Signature	Date
		and 4 of this EA.		
NP	Areas of Critical Environmental Concern	The parcels do not occur within an ACEC. See 2008 RMP.	Katie Stevens	5/12/15
NP	BLM Natural Areas	The parcels are not within any areas designated by the RMP/EIS to be managed as BLM Natural Areas for their wilderness characteristics. See 2008 RMP.	Bill Stevens	5/12/15
NI	Cultural Resources	A Cultural Resource Inventory Analysis was conducted to take into account the potential effects that the undertaking may have on historic properties. The goal of the inventory and subsequent consultation was to identify historic properties potentially affected by the undertaking, to assess its effects, and seek ways to avoid, minimize or mitigate any adverse effects on such properties. Thirteen (13) lease parcels were originally included on the preliminary list and proposed for inclusion in the lease sale. It was not known initially which parcels would be deferred and which would move forward for leasing; therefore, the BLM conducted an analysis for all 13 parcels initially proposed. The analysis consisted of an infield reconnaissance visit to each parcel, library records search, Geographic Information System (GIS) site density analysis, and a Site Density Probability Model analysis of each parcel within the proposed lease sale. The analysis examined the cultural use of the landscape by peoples prehistorically and historically, and considered each lease parcel with respect to the effects on historic properties as a result of leasing the parcels for oil and gas development. GIS was used to provide locational data for on-site visits and project and site records searches and analysis. The data was then used to evaluate the effects to historic properties. The search of recorded sites in the proposed lease areas shows that there is wide distribution of sites and site densities. The BLM made the decision to analyze previous inventories and cultural resources in each of the parcels. The parcels analyzed were looked at individually and in proximity to adjoining lease parcels with respect to their geophysical areas and intersection with GIS cultural data. The potential for adverse effect to historic properties varies with each proposed lease parcel and is based on the site density analysis, topography, cultural landscape, and the ability to avoid sites for development projects. In areas with anticipated low (<10 per sq/mi) to medium (>10-30< per sq/mi) site densities, and based on the ability to avoid cultural sites and lease stipulations, potential oil and gas	Don Montoya	8/12/15

Determi-nation	Resource	Rationale for Determination	Signature	Date
		wells and access routes could be located and developed without having an adverse effect to cultural resources. However, for lease parcels showing high (>30 per sq/mi) site densities, the ability to avoid sites is less likely and there is a higher probability of an adverse effect to historic properties. For parcels 001, 004, and 005 with low to medium site density, the determination for SHPO and consulting parties' consultation, the recommendation is "No Effect to Historic Properties" due to the ability to avoid cultural sites and applying lease notice stipulations (UT-LN-67, UT-LN-68) in leasing conditions of approval. For parcels 002, 003, 063, and 064, showing high site densities in portions of the parcels, the determination of effect was more difficult to assess. A more detailed analysis considering site typology, site distribution, topography, and National Register eligibility was considered. The results of the analysis of lease parcels with high site densities were to apply lease notice stipulations UT-LN-69 and UT-LN-70 that specifically address high site density probabilities. Parcel 063 has two (2) 40-acre portions of the lease parcel that are intersected by the Old Spanish National Historic Trail (Trail). Parcel 064 also has a portion of the parcel that intersects with the Trail. Lease notice UT-LN-65 applies to Parcels 063 and 064. Modifications to any Surface Use Plans of Operations may be required in order to protect the historic integrity of the Trail. Consultation and coordination with the Old Spanish Trail Association, National Park Service, and the BLM Trail Administrator may also be necessary. Based on the Cultural Resource Inventory Analysis and the mitigation of impacts to cultural resources afforded by RMP lease stipulations, Utah Lease Notices, and cultural resources stipulation required by WO IM No. 2005-003, a NHPA determination of "No Adverse Effect to Historic Properties" is proposed for the undertaking. Cultural resources are not impacted to the degree that would require a detailed analysis in the EA. Consultation with consulting parties is ongoing.		
NI	Greenhouse Gas Emissions/Climate Change	Ongoing scientific research has identified the potential impacts of man-made GHG emissions and changes in biological carbon sequestration due to land management activities on global climate. Through complex interactions on a regional and global scale, these GHG emissions and net losses of biological carbon sinks cause a net warming effect of the atmosphere, primarily by decreasing the amount of	Ann Marie Aubry Leonard Herr Colin Schwartz	7/27/15

Determi-nation	Resource	Rationale for Determination	Signature	Date
		heat energy radiated by the earth back into space. Although GHG levels have varied for millennia, recent industrialization and burning of fossil carbon fuels have caused GHG concentrations (represented as CO2 equivalents or CO2(e)) to increase dramatically and are likely to contribute to overall global climatic changes. The Intergovernmental Panel on Climate Change (IPCC) recently concluded that "warming of the climate system is unequivocal" and "most of the observed increase in globally average temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic greenhouse gas concentrations" (IPCC 2007b). The IPCC further concluded that these changes in atmospheric composition are almost entirely the result of human activity, not the result of changes in natural processes that produce or remove these gases (IPCC 2007b). With that said, the assessment of GHG emissions and climate change is still in its earliest stages of formulation. At present, under current scientific data and models, it is not technically feasible to know with any certainty the net impacts to climate due to global emissions, let alone regional or local emissions. The inconsistency in results of scientific models used to predict climate change at the global scale, combined with the lack of scientific models designed to predict climate change on regional or local levels, prohibits the ability to quantify potential future impacts of decisions made at the local level, particularly for small scale projects such as the Proposed Action. However, drilling and development activities from the Proposed Action are anticipated to release a negligible amount of emissions, including GHGs, into the local airshed. The No Action alternative would not result in an accumulation of impacts. This project, at the highest end of the GHG emission spectrum, would release 4690.13 Metric Tons of CO2(e). In 2005, the state of Utah emitted approximately 69 Million Metric Tons of gross CO2(e) (Utah GHG Inventory and Reference Case Projection, CCS 2007). This project would not even measure a hundredth of a percent when comparing just to the Utah emissions of GHG. With that said however, from 1990 to 2005, Utah's GHG emissions have increased 40% while nationally increased only 16% (Utah GHG Inventory and Reference Case Projection, CCS 2007). The BLM will look for any reductions in GHG's on a project by project basis, as the negative effects of increased CO2 are becoming more readily apparent on a global, cumulative scale.		

Determi-nation	Resource	Rationale for Determination	Signature	Date
NI	Environmental Justice	No EJ populations living in the vicinity of the project area.	Bill Stevens	5/12/15
NI	Fish and Wildlife Excluding USFWS Designated Species	Detailed information on the appropriate lease notices and stipulations are contained in the 2008 Moab RMP. The BLM works with Utah Division of Wildlife Resources along with others to develop the stipulations and notices as mitigation for the leasing stage. Further analysis and mitigation may be required at the project stage. Wildlife habitat and criteria were identified for these species from GIS data layers developed by the BLM, Utah Division of Wildlife Resources/Utah Natural Heritage Program data and field office records. These habitats are addressed in the RMP and provided certain protections through stipulations or notices. See Appendix A for the parcels containing appropriate lease notices and stipulations developed in the 2008 Moab RMP that have been applied to all appropriate parcels. The stipulations will adequately mitigate impacts from the Proposed Action to fish and wildlife resources, fish and wildlife resources will not be impacted to the degree that will require detailed analysis in the EA. Mule deer & elk crucial winter range – parcels 001,002,003,004, 063 & 064 (UT-S-229 Crucial mule deer and elk winter habitat) Yearlong bighorn sheep habitat –Parcels 001, 002, 003, 004 (UT-LN-21-Bighorm sheep habitat) Crucial Pronghorn antelope – parcels 001, 002, 003, 004 & 005 (UT-LN-15 –Pronghorn fawning)	Pamela Riddle	5/26/15
NI	Floodplains	The sale and issuance of an oil and gas lease is an administrative action that does not result in any surface disturbance. However, the issuance of a lease is considered to be an irretrievable commitment of resources because the BLM generally cannot deny all surface use of a lease unless the lease is issued with a no surface occupancy stipulation. The Proposed Action is predicted to account for less than 1 oil and gas well per year and cause surface disturbance of approximately 4 acres per year for 10 years, or 40 acres total over a 10 year period. The lessee/operator would submit an APD when oil and gas exploration and development activities are proposed. The APD would be subject to site specific NEPA analysis. An approved APD is subject to standard operating procedures (SOP) required by regulation, stipulations attached to the lease, best management practices (BMP) included in the APD submission, and conditions of	Ann Marie Aubry	7/27/15

Determi-nation	Resource	Rationale for Determination	Signature	Date
		approval (COA) developed during the NEPA analysis and documentation process. These SOPs, BMPs, and COAs mitigate impacts to other resources and users from oil and gas exploration and development activities. To protect floodplains, application of stipulation UT-S-122 to all parcels is warranted. Stipulation UT-S-122 does not allow surface disturbing activities within 100- year floodplains. Parcels # UT0216-001, UT0216-002, UT0216-003, UT0216-063, UT0216-064 have large floodplains that are addressed by stipulation UT-S-122. The SOPs, BMPs, COAs and stipulations will adequately mitigate impacts from the Proposed Action to floodplain resources. Thereby, for reasons listed above, floodplains will not be affected to a degree that detailed analysis is required.		
NI	Fuels/Fire Management	The sale and issuance of an oil and gas lease is an administrative action that does not result in any surface disturbance. However, the issuance of a lease is considered to be an irretrievable commitment of resources because the BLM generally cannot deny all surface use of a lease unless the lease is issued with a no surface occupancy stipulation. The Proposed Action in the Moab Field Office is estimated to account for less than 1 oil and gas well per year and cause surface disturbance of approximately 4 acres per year for 10 years, or 40 acres total over a 10 year period. The lessee/operator would submit an APD when oil and gas exploration and development activities are proposed. The APD would be subject to site specific NEPA analysis. Appropriate measures contained in the APD or developed during the NEPA process would mitigate impacts to fuels and fire management. Fuels and fire management is not impacted to the degree that would require detailed analysis in the EA.	Josh Relph	5/19/15
NI	Geology/Mineral Resources/Energy Production	The Proposed Action is predicted to account for less than 1 oil and gas well per year and cause surface disturbance of approximately 4 acres per year for 10 years, or 40 acres total over a 10 year period. Depending on the success of future oil and gas drilling, non-renewable oil and/or natural gas may be extracted from productive wells and delivered to market. Production of oil and/or gas would result in the irretrievable loss of these resources. Environmental impacts of the RFD were analyzed and are documented in the Moab Field Office PRMP/FEIS. The Proposed Action would not exceed the level of activity predicted in the RFD. The FEIS adequately addresses the impacts of oil and gas leasing. The RFD	Doug Rowles	5/21/15

Determi-nation	Resource	Rationale for Determination	Signature	Date
		remains valid. Potential geologic hazards caused by hydraulic fracturing include induced seismic activity. Earthquakes occur when energy is released due to blocks of the earth's crust moving along areas of weakness or faults. Earthquakes attributable to human activities are called "induced seismic events" or "induced earthquakes." In the past several years induced seismic events related to energy development projects have drawn heightened public attention. A study conducted by the National Research Council (2013) studied the issue of induced seismic activity from energy development. The study found that: 1) The process of hydraulic fracturing a well as presently implemented for shale gas recovery does not pose a high risk for inducing felt seismic events; and, 2) Injection for disposal of waste water derived from energy technologies into the subsurface does pose some risk for induced seismicity, but very few events have been documented over the past several decades relative to the large number of disposal wells in operation. The Proposed Action does not include disposal of waste water via injection wells. Additionally, the potential for induced seismicity cannot be made at the leasing stage; as such, it will be evaluated at the APD stage should the parcel be sold/issued, and a development proposal submitted. Therefore, Geology/Mineral Resources/Energy Production will not be analyzed in further detail in the EA.		
NI	Invasive Species/Noxious Weeds (EO 13112)	No known noxious plants occur within the lease parcels. Invasive plants that occur throughout these parcels in isolated pockets are cheatgrass (Bromus tectorum), Russian thistle (Salsola kali), and halogeton (Halogeton glomeratus). The sale and issuance of an oil and gas lease is an administrative action that does not result in any surface disturbance. However, the issuance of a lease is considered to be an irretrievable commitment of resources because the BLM generally cannot deny all surface use of a lease unless the lease is issued with a no surface occupancy stipulation. The Proposed Action in the Moab Field Office is estimated to account for less than 1 oil and gas well per year and cause surface disturbance of approximately 4 acres per year for 10 years, or 40 acres total over a 10 year period. The lessee/operator would submit an APD when oil and gas exploration and development activities are proposed. The APD would be subject to site specific NEPA analysis.	Jordan Davis	5/12/15

Determi-nation	Resource	Rationale for Determination	Signature	Date
		An approved APD is subject to standard operation procedures (SOP) required by regulation, stipulations attached to the lease, best management practices (BMP) included in the APD submission, and conditions of approval (COA) developed during the NEPA analysis and documentation process. These SOPs, BMPs, and COAs, mitigate impacts to other resources and users from oil and gas exploration and development activities. At the development stage, mitigation measures and BMPs would be incorporated to avoid the spread of undesirable non-native plant species. These BMPs/COAs include such activities as pressure washing earth moving equipment prior to moving onto a new construction location, and treatment and control of weeds using integrated pest management techniques according to BLM protocols. Invasive species/noxious weeds will not be impacted to the degree that will require detailed analysis in the EA.		
NI	Lands/Access	Impacts to individual ROW/holders would be determined at the time a specific development proposal is received and any required modification or mitigation would be included in the authorization. Many, but not all, parcels are accessed by designated transportation routes. Any new road construction in a future site specific proposal, would likely originate from a designated transportation route, and could occur upon BLM lands within the lease, adjacent BLM lands, private lands or other split estate owned lands. Issuance of a lease does not provide for access across adjacent private lands. The operator would be required to negotiate access to the lease parcels. Impacts to lands/access would be analyzed in project specific NEPA documentation and modification and/or mitigation included in the project specific approved APD. Lands/Access is not impacted to the degree that would require detailed analysis in the EA.	Jan Denney	5/12/15
NI	Livestock Grazing	The sale and issuance of an oil and gas lease is an administrative action that does not result in any surface disturbance. The lessee/operator would submit an APD when oil and gas exploration and development activities are proposed. The APD would be subject to site specific NEPA analysis. An approved APD is subject to standard operating procedures (SOP) required by regulation, stipulations attached to the lease, best management practices (BMP) included in the APD submission, and conditions of approval (COA) developed during the NEPA	Kim Allison	6/10/15

Determi-nation	Resource	Rationale for Determination	Signature	Date
		analysis and documentation process. These SOPs, BMPs, and COAs, mitigate impacts to other resources and users from oil and gas exploration and development activities. Standard terms of the lease agreements include the ability to move the well 200 meters, which would avoid most range improvements and rangeland trend studies. Changes to grazing permit terms and conditions, exchange of use agreements or assignments of range improvements would not occur as a result leasing or exploration. For reasons listed above, there are no affects to livestock grazing to a degree that detailed analysis is required.		
PI	Migratory Birds/Raptors	The following documents are incorporated: Utah Comprehensive Wildlife Conservation Strategy (CWCS), Utah Partners in Flight Avian Conservation Strategy Version 2.0. (2002), Birds of Conservation Concern (2002), Executive Order 13186: Responsibilities of Federal Agencies to Protect Migratory Birds, MOU between the USDI BLM and USFWS to Promote the Conservation and Management of Migratory Birds (4/2010), and Utah Supplemental Planning Guidance: Raptor Best Management Practices (BLM UTSO IM 2006-096). Migratory birds are present within all of the proposed parcels. Migratory birds would not be impacted by the act of leasing itself but it implies that development may follow which may have an impact on migratory birds. Lease notice (UT-LN-45) for migratory birds is warranted for all parcels. Raptors habitat, either foraging or nesting, may be found on all of the parcels. Raptors would not be impacted by the act of leasing itself but it implies that development may follow which may have an impact on raptors; therefore a raptor habitat lease notice (UT-LN-44) has been attached to all of the leases to notify the lessee of the possible presence of raptor habitats and nesting at the leasing stage. UT-LN-44 requires breeding season surveys. If nesting raptors are located within project areas, surface disturbing activities will not occur during nesting season, eliminate impacts & disturbances to raptors and golden eagles during nesting season. Permanent facilities may be re-located to avoid long disturbances to active raptor/eagle nests. The above mentioned lease notices and mitigation measures may reduce impacts but residual impacts to migratory birds and raptors will be further analyzed. Additionally there is a known Golden Eagle nest within	Pamela Riddle	5/26/15

Determi-nation	Resource	Rationale for Determination	Signature	Date
		parcel 004; therefore a stipulation for Golden Eagles will be attached to this lease. UT-S-273 - Conditional Surface Use And Timing Limitation – Golden Eagle Nesting Sites And Territories.		
NI	Utah BLM Sensitive Species	Detailed information on the inclusion of the appropriate lease notices and stipulations are contained in the 2008 Moab RMP. Sensitive species habitat and criteria were identified for these species from GIS data layers developed by the BLM, Utah Division of Wildlife Resources/Utah Natural Heritage Program data and field office records. These habitats are addressed in the RMP and provided needed protections through stipulations or notices. Stipulations for burrowing owl and ferruginous hawk. (Stipulation UT-S-272-CSU/TL Burrowing Owl and Ferruginous Hawk Nesting) are attached to 001, 002, 003, 004, 005, 063 & 064. Kit fox habitat can be found throughout the field office, though a draft model developed by the Richfield BLM has allowed us to identify the most likely habitats. Stipulation UT-S-298 (Kit Fox) is used to protect kit fox in parcels 001, 002, 003, 004, 005, 063 & 064. All parcels will have UT-LN-49 attached to notify the lessee of the potential for sensitive species habitat that will include kit fox. White-tailed prairie dog habitat survey information and models supplied by the DWR indicate white-tailed prairie dog and or Gunnison habitat may be found on parcels 004, 063 & 064. Lease notice UT-LN-25 CSU will be applied to these parcels. This notice is used to notify the lessee of the possible presence of prairie dogs at the leasing stage. Other sensitive species may also be found on all leases; therefore the Utah Sensitive Species lease notice (UT-LN-49) has been attached to all parcels to notify the lessee of the potential for sensitive species habitat. For each of the named species addressed above site-specific effects cannot be analyzed until an exploration or development application is received, after leasing has occurred. The stipulations and lease notices will adequately mitigate impacts from the Proposed Action to sensitive species. Sensitive species will not be impacted to the degree that will require detailed analysis in the EA.	Pamela Riddle	5/26/15
NI	Native American	The issuance of leases would not directly impact Native American Religious Concerns. However, the issuance of a	Don Montoya	8/12/15

Determi-nation	Resource	Rationale for Determination	Signature	Date
	Religious Concerns	lease is considered to be an irretrievable commitment of resources because the BLM generally cannot deny all surface use of a lease unless the lease is issued with a no surface occupancy stipulation. The Proposed Action in the Moab Field Office is estimated to account for less than 1 oil and gas well per year and cause surface disturbance of approximately 4 acres per year for 10 years, or 40 acres total over a 10 year period. Project-specific impacts relating to future authorizations cannot be analyzed until an exploration or development application is received. At that time, site specific surveys and further consultation would be completed. Native American Consultation was conducted regarding the Proposed Action. The BLM consultation letter, the list of Native American Tribes consulted, and responses are contained in Appendix G of the EA. Native American consultation is on-going.		
NI	Paleontology	The sale and issuance of an oil and gas lease is an administrative action that does not result in any surface disturbance. However, the issuance of a lease is considered to be an irretrievable commitment of resources because the BLM generally cannot deny all surface use of a lease unless the lease is issued with a no surface occupancy stipulation. The Proposed Action is predicted to account for less than 1 oil and gas well per year and cause surface disturbance of approximately 4 acres per year for 10 years, or 40 acres total over a 10 year period. The lessee/operator would submit an APD when oil and gas exploration and development activities are proposed. The APD would be subject to site specific NEPA analysis. RMP Stipulations and lease notices pertain to BLM surface only. Some lease parcels with BLM surface contain areas of high potential for paleontological resources. The Monticello and Moab RMP contains management decisions to protect paleontological resources (Monticello RMP – PAL-10, p. 87; Moab RMP – PAL-10, p. 80). GIS was used to determine the potential fossil yield classification (PFYC) for each parcel. It was determined that all parcels with BLM surface had PFYC of 3, 4, or 5. Therefore, lease notice UT-LN-72: High Potential Paleontological Resources will be attached to all parcels with BLM surface. This lease notice notifies the lessee that if they develop their lease, they may have to conduct paleontological surveys. Attachment of this lease notice will adequately mitigate	Rebecca Hunt Foster	5/14/15

Determi-nation	Resource	Rationale for Determination	Signature	Date
		impacts to paleontological resources. Paleontology is not impacted to the degree that would require detailed analysis in the EA.		
NI	Rangeland Health Standards	The sale and issuance of an oil and gas lease is an administrative action that does not result in any surface disturbance. However, the issuance of a lease is considered to be an irretrievable commitment of resources because the BLM generally cannot deny all surface use of a lease unless the lease is issued with a no surface occupancy stipulation. The Proposed Action is predicted to account for less than 1 oil and gas well per year and cause surface disturbance of approximately 4 acres per year for 10 years, or 40 acres total over a 10 year period. The lessee/operator would submit an APD when oil and gas exploration and development activities are proposed. The APD would be subject to site specific NEPA analysis. An approved APD is subject to standard operating procedures (SOP) required by regulation, stipulations attached to the lease, best management practices (BMP) included in the APD submission, and conditions of approval (COA) developed during the NEPA analysis and documentation process. These SOPs, BMPs, and COAs, including reclamation standards, mitigate impacts to rangeland health standards from oil and gas exploration and development activities. The standards for rangeland health (#1-soils, #2-riparian, #3-wildlife/vegetation, #4-water quality) are addressed individually as separate resources for determination of impacts in this checklist. Thereby, for reasons listed above, Rangeland Health Standards as a whole are not affected to a degree that detailed analysis is required.	Kim Allison	6/10/15
NI	Recreation	Parcels with BLM surface are in areas used for dispersed recreation such as hunting and hiking. This use is not intensive. Recreation is not impacted to the degree that would require detailed analysis in the EA.	Katie Stevens	5/12/15
NI	Socio-Economics	Even if leases were developed, very small effect relative to the overall economies of the two counties involved.	Bill Stevens	5/12/15
NI	Soils (including biological soil crusts)	The sale and issuance of an oil and gas lease in as administrative action that does not result in any surface disturbance. However, the issuance of a lease is considered to be an irretrievable commitment of resources because the BLM generally cannot deny all surface use of	Ann Marie Aubry	7/27/15

Determi-nation	Resource	Rationale for Determination	Signature	Date
		a lease unless the lease is issued with a no surface occupancy stipulation. The Proposed Action in the Moab Field Office is estimated to account for less than 1 oil and gas well per year and cause surface disturbance of approximately 4 acres per year for 10 years or 40 acres total over a 10 year period. The lessee/operator would submit an APD when oil and gas exploration and development activities are proposed. The APD would be subject to site specific NEPA analysis. An approved APD is subject to standard operation procedures (SOP) required by regulation, stipulations attached to the lease, best management practices (BMP) included in the APD submission, and conditions of approval (COA) developed during the NEPA analysis and documentation process. These SOPS, BMPs and COAs mitigate impacts to soils from oil and gas exploration and development activities. BMPs and SOPs to protect soil resources are defined in the Gold Book and in the Moab RMP. Site specific design features and reclamation requirements would be applied at the APD stage as COAs. Parcels # UT0216-001, UT0216-002, UT0216-003, UT0216-004, UT0216-005, UT0216-064 have moderately saline soils that are addressed by stipulation UT-S-109. Parcels # UT0216-001, UT0216-002, UT0216-003, UT0216-004 contain areas with steep slopes over 30%, these resources are addressed by stipulation UT-S-108. Parcels # UT0216-063, UT0216-064 contain areas with steep slopes over 30%, these resources are addressed by stipulation UT-S-329. The SOPS, BMPs, COAs, stipulations and lease notices will adequately mitigate impacts from the Proposed Action to soil resources. Soils will not be impacted to the degree that will require detailed analysis in the EA.		
NI	Threatened, Endangered or Candidate Plant Species	The sale and issuance of an oil and gas lease is an administrative action that does not result in any surface disturbance. However, the issuance of a lease is considered to be an irretrievable commitment of resources because the BLM generally cannot deny all surface use of a lease unless the lease is issued with a no surface occupancy stipulation. The lessee/operator would submit an APD when oil and gas exploration and development activities are proposed. The APD would be subject to site specific NEPA analysis.	Dave Williams	7/20/15

Determi-nation	Resource	Rationale for Determination	Signature	Date
		An approved APD is subject to standard operating procedures (SOP) required by regulation, stipulations attached to the lease, best management practices (BMP) includes in the APD submission, and conditions of approval (COA) developed during the NEPA analysis and documentation process. These SOPs, BMPs, COAs, including plans to reclaim and restore habitat on areas of surface disturbance, mitigate impacts to other resources and users from oil and gas exploration and development activities. There are two threatened plant species within the Moab Field Office. Lease parcels 001, 002, 003, 004, 005 have no habitat for Jones Cycladenia and Navajo Sedge plant species. Portions of lease parcels 063 and 064 have potential habitat for Jones Cycladenia and Navajo Sedge. There are no known species occupancy within the vicinity of lease parcels 063 and 064. Other BLM Sensitive Species and/or habitat may occur within all the lease parcels. In addition to the "Threatened and Endangered Species Act Stipulation" (WO IM No 2002-174) that will be attached to all lease parcels, lease notice UT-LN-49 (Utah Sensitive Species) will be attached to lease parcels containing BLM surface. RMP stipulations and lease notices pertain to BLM surface only. The stipulation and notice will ensure compliance with the ESA and will adequately mitigate impacts to T&E species/habitat. T&E plant species is not impacted to the degree that would require detailed analysis in this EA.		
NI	Threatened, Endangered or Candidate Animal Species	For all parcels with Federal surface ownership, by applying the appropriate USWFS Lease Notices developed in the 2008 RMP, potential impacts to these species will be mitigated to a 'not likely to adversely impact' determination. See appendix A for the parcels containing USWFS Lease Notices. USFWS T&E Lease Notice for California Condor (T&E-11) will be applied to every parcel and UT-S-340: CSU/TL – Mexican Spotted Owl Habitat and Nest Sites will be applied to 001, 002, 003, 004, 063 & 064. The stipulations will adequately mitigate impacts from the Proposed Action to T&E, endangered or candidate animal species. T&E, Endangered or candidate animal species will not be impacted to the degree that will require detailed analysis in the EA.	Pamela Riddle	5/26/15
NI	Wastes (hazardous or solid)	The sale and issuance of an oil and gas lease is an administrative action that does not result in any surface disturbance. However, the issuance of a lease is considered to be an irretrievable commitment of resources	Doug Rowles	7/7/15

Determi-nation	Resource	Rationale for Determination	Signature	Date
		because the BLM generally cannot deny all surface use of a lease unless the lease is issued with a no surface occupancy stipulation. The Proposed Action is predicted to account for less than 1 oil and gas well per year and cause surface disturbance of approximately 4 acres per year for 10 years, or 40 acres total over a 10 year period. The lessee/operator would submit an APD when oil and gas exploration and development activities are proposed. The APD would be subject to site specific NEPA analysis. An approved APD is subject to standard operating procedures (SOP) required by regulation, stipulations attached to the lease, best management practices (BMP) included in the APD submission, and conditions of approval (COA) developed during the NEPA analysis and documentation process. These SOPs, BMPs, and COAs, mitigate impacts to other resources and users from oil and gas exploration and development activities. The construction, drilling, completion, testing, and production of an oil and gas well would produce waste products including drilling and completion fluids and produced water. SOP, BMPs, and COAs will mitigate impacts and ensure proper containment and disposal of wastes generated from oil and gas activities. Wastes will not cause impacts to the degree that would require detailed analysis in the EA.		
NI	Groundwater Resources/Quality	The sale and issuance of an oil and gas lease is an administrative action that does not result in any subsurface disturbance. However, the issuance of a lease is considered to be an irretrievable commitment of resources because the BLM generally cannot deny all sub-surface use of a lease. The Proposed Action in the Moab Field Office is estimated to account for less than 1 oil and gas well per year over a 10 year period. Potential site-specific impacts relating to future authorizations will be analyzed when an APD is received. Prior to approving an APD, Hydrologic and Engineering reviews would be conducted on all proposed down-hole activities, including hydraulic fracturing (if proposed). All appropriate regulatory and mitigation measures would be included in the approved APDs and all potential impacts would be identified and addressed during the site-specific NEPA process. Groundwater quality protection for oil and gas leasing, exploration and development is outlined in Instruction Memorandum (IM) No. UT 2010-055: Protection of Ground Water Associated with Oil and Gas Leasing,	Doug Rowles	7/27/15

Determi-nation	Resource	Rationale for Determination	Signature	Date
		Exploration and Development- Utah BLM. The purpose of this IM is to clarify the process for the protection of usable ground water zones (≤ 10,000 mg/L as defined in Onshore Oil and Gas Order No. 2) associated with oil and gas exploration and development activities. All potential usable water aquifers would be cased and cemented. Well casings would be pressure tested to ensure integrity. The lease parcels are not within nor do they contain any Sole Source Aquifers or Public Drinking Water Source Protection Zones. Parcels UT0216-002 and UT0216-003 contain Public Water Reserves. Moab RMP Stipulation UT-S-122: NSO Riparian, Floodplains, and Public Water Reserves will be attached to these parcels. Parcels UT0216-063 and UT0216-064 contain water wells. The requirements for oil and gas drilling operations are described in Onshore Oil and gas Order (OOGO) No. 2 and the requirements for disposal of produced water from oil and gas activities are contained in OOGO No. 7. Adherence to these regulatory requirements will adequately mitigate impacts from the Proposed Action to groundwater resources. Groundwater resources will not be impacted to the degree that would require detailed analysis in the EA.		
NI	Surface Water Resources/Quality	The sale and issuance of an oil and gas lease in as administrative action that does not result in any surface disturbance. However, the issuance of a lease is considered to be an irretrievable commitment of resources because the BLM generally cannot deny all surface use of a lease unless the lease is issued with a no surface occupancy stipulation. The Proposed Action in the Moab Field Office is estimated to account for less than 1 oil and gas well per year and cause surface disturbance of approximately 4 acres per year for 10 years or 40 acres total over a 10 year period. The lessee/operator would submit an APD when oil and gas exploration and development activities are proposed. The APD would be subject to site specific NEPA analysis. An approved APD is subject to standard operation procedures (SOP) required by regulation, stipulations attached to the lease, best management practices (BMP) included in the APD submission, and conditions of approval (COA) developed during the NEPA analysis and documentation process. These SOPS, BMPs and COAs mitigate impacts to water resources from oil and gas exploration and development activities. Standard operating procedures including interim and final reclamation are required and site specific APD approvals	Ann Marie Aubry	7/27/15

Determi-nation	Resource	Rationale for Determination	Signature	Date
		would provide mitigation for potential direct and indirect impacts to surface water quality. Surface water quality could be impacted by surface disturbance (APD stage-well pads, roads and pipelines) in or near perennial or intermittent streams or springs. The Moab RMP provides for the protection of surface water resources with Management Decision SOL-WAT-5 which states "allow no surface occupancy and preclude surface disturbing activities within 100-year floodplains, within 100 meters of a natural spring or within public water reserves" (ROD p. 102). To protect surface water resources, application of stipulation UT-S0-122 to all parcels is warranted. Stipulation UT-S-122 does not allow surface disturbing activity within the 100-year floodplain or within 100 meters of riparian areas. Parcels # UT0216-001 and UT0216-003 contain springs and streams, these resources are addressed by stipulation UT-S-122. Parcels # UT0216-002 and UT0216-003 contain Public Water Reserves, these resources are addressed by stipulation UT-S-122. The SOPs, BMPs, COAs and stipulations will adequately mitigate impacts from the Proposed Action to surface water resources. Surface water resources will not be impacted to the degree that will require detailed analysis in the EA.		
NI	Wetlands/Riparian Zones	The sale and issuance of an oil and gas lease in as administrative action that does not result in any surface disturbance. However, the issuance of a lease is considered to be an irretrievable commitment of resources because the BLM generally cannot deny all surface use of a lease unless the lease is issued with a no surface occupancy stipulation. The Proposed Action in the Moab Field Office is estimated to account for less than 1 oil and gas well per year and cause surface disturbance of approximately 4 acres per year for 10 years or 40 acres total over a 10 year period. The lessee/ operator would submit an APD when oil and gas exploration and development activities are proposed. The APD would be subject to site specific NEPA analysis. An approved APD is subject to standard operation procedures (SOP) required by regulation, stipulations attached to the lease, best management practices (BMP) included in the APD submission, and conditions of approval (COA) developed during the NEPA analysis and documentation process. These SOPS, BMPs and COAs mitigate impacts to wetlands/ riparian resources from oil	Ann Marie Aubry	7/27/15

Determi-nation	Resource	Rationale for Determination	Signature	Date
		and gas exploration and development activities. The Moab RMP Management decision RIP-7 states "preclude surface disturbing activities within 100- year floodplains and within 100 meters of riparian areas, public water reserves and springs" (ROD p. 100). Standard operating procedures including interim and final reclamation are required, and site specific APD approvals would provide mitigation for potential direct and indirect impacts to wetlands/riparian resources. To protect wetlands/riparian resources, application of stipulation UT-S-122 is warranted on all parcels. Stipulation UT-S-122 does not allow surface disturbing activities within the 100-year floodplain or within 100 meters of riparian resources. Parcels # UT0216-001, UT0216-002, UT0216-003 contain riparian resources, these resources are addressed by stipulation UT-S-122. The SOPS, BMPs, COAs, stipulations and lease notices will adequately mitigate impacts from the Proposed Action to wetland/ riparian resources. Wetlands/ riparian resources will not be impacted to the degree that will require detailed analysis in the EA.		
NP	Wild and Scenic Rivers	There are no designated wild and scenic river segments within the parcels. See 2008 RMP.	Katie Stevens	5/12/15
NP	Wilderness/WSA	The parcels are not within any designated BLM Wilderness Study Areas (WSA) or designated wilderness areas. See 2008 RMP.	Bill Stevens	5/12/15
NI	Woodland / Forestry	The sale and issuance of an oil and gas lease is an administrative action that does not result in any surface disturbance. However, the issuance of a lease is considered to be an irretrievable commitment of resources because the BLM generally cannot deny all surface use of a lease unless the lease is issued with a no surface occupancy stipulation. The Proposed Action in the Moab Field Office is estimated to account for less than 1 oil and gas well per year and cause surface disturbance of approximately 4 acres per year for 10 years, or 40 acres total over a 10 year period. The lessee/operator would submit an APD when oil and gas exploration and development activities are proposed. The APD would be subject to site specific NEPA analysis. An approved APD is subject to standard operation procedures (SOP) required by regulation, stipulations	Jordan Davis	5/12/15

Determi-nation	Resource	Rationale for Determination	Signature	Date
		attached to the lease, best management practices (BMP) included in the APD submission, and conditions of approval (COA) developed during the NEPA analysis and documentation process. These SOPs, BMPs, and COAs, including reclamation standards, mitigate impacts to woodlands/forestry from oil and gas exploration and development activities. Woodland/forestry resources will not be impacted to the degree that will require detailed analysis in the EA.		
NI	Vegetation Excluding USFWS Designated Species	This is an administrative action, which would not result in any surface disturbance at this time. However, the issuance of a lease is considered to be an irretrievable commitment of resources because the BLM generally cannot deny all surface use of a lease unless the lease is issued with a no surface occupancy stipulation. The Proposed Action in the Moab Field Office is estimated to account for less than 1 oil and gas well per year and cause surface disturbance of approximately 4 acres per year for 10 years, or 40 acres total over a 10 year period. The lessee/operator would submit an APD when oil and gas exploration and development activities are proposed. The APD would be subject to site specific NEPA analysis. An approved APD is subject to standard operation procedures (SOP) required by regulation, stipulations attached to the lease, best management practices (BMP) included in the APD submission, and conditions of approval (COA) developed during the NEPA analysis and documentation process. These SOPs, BMPs, and COAs, including reclamation standards, mitigate impacts to vegetation from oil and gas exploration and development activities. Vegetation resources will not be impacted to the degree that will require detailed analysis in the EA.	Kim Allison	6/10/15
NI	Visual Resources	The construction, drilling, completion, testing, and production of an oil and gas well would cause impacts to visual resources. The Moab RMP designates the parcels with BLM surface as VRM Class IV as having no special VRM stipulations required. Class IV VRM is to provide for management activities such as oil and gas exploration and development that require major modifications to the existing character of the landscape. Visual resources would be analyzed in a future site specific NEPA analysis and modifications may be required to the APD to meet VRM objectives. Visual Resources is not impacted to the degree that would require detailed analysis in the EA.	Katie Stevens	5/12/15

Determi-nation	Resource	Rationale for Determination	Signature	Date
PI	Lands with Wilderness Characteristics	Approximately 3.44 acres located in the north center of Parcel 64 (just above the San Juan County "B" road) are in an area (Coyote Wash) identified as possessing wilderness characteristics.	Bill Stevens	5/12/15

FINAL REVIEW:

Reviewer Title	Signature	Date	Comments
Environmental Coordinator			
Authorized Officer			

Appendix E

Agency Participation (Stakeholders) Responses

United States Department of the Interior

BUREAU OF INDIAN AFFAIRS
Navajo Region Office
Division of Real Estate Services
P. O. Box 1060
Gallup, New Mexico 87305-1060

IN REPLY REFER TO:
Leases/Permits(Minerals) N425

JUL 2 4 2015

7004 1160 0006 2214 9982
CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Bureau of Land Management
Attn: Doug Rowles
Canyon Country District Office
82 East Dogwood
Moab, Utah 84532

Dear Rowles:

This is in reference to your letter dated May 22, 2015, regarding the February 2016 competitive Oil and Gas Lease Sale. Our office received a response letter dated July 2, 2015, from the Navajo Nation Minerals Department recommending to exclude the following tracts from the referenced lease sale due to continuing controversies regarding the status of the lands in the McCracken Extension area.

UT0-216 – 026
Township 39 South, Range 22 East, SLM, San Juan County, Utah
Section 24: SE¼SE¼ (All lands within Navajo Reservation Withdrawal)
Section 25: NE¼, E½NW¼, NE¼SW¼, S½SW¼, SE¼ (All lands within Navajo Reservation Withdrawal)
Containing 356.52 acres

UT0-216 – 037
Township 38 South, Range 23 East, SLM, San Juan County, Utah
Sections 33 - ALL
Containing 640.00 acres

UT0-216– 038
Township 39 South, Range 23 East, SLM, San Juan County, Utah
Section 5: Lots 1, 2, S½NE¼, SE¼
Section 8: SE¼
Containing 479.31 acres

2015 AUG -7 AM 8:05
MOAB FIELD OFFICE

If you have any questions, contact Ms. Bertha Spencer, Supervisory Realty Specialist, Leases/Permits (Minerals) Section at 505/863-8336 or Mr. Steven Prince with the Navajo Nation Minerals Department at 928/871-6587.

Sincerely,

Regional Director, Navajo

Enclosure

Cc: BLM, Utah State Office, Attn: Justin Abernathy, 440 West 200 South, Suite 500, Salt Lake City, UT 84101
Monticello Field Office, BLM, 365 North Main St., Monticello, Utah 84535
Navajo Nation, Attn: Project Review Office
Navajo Nation Minerals Department
Director, Navajo Nation, EPA
Director, NNHP, Fish & Wildlife Department
Shiprock Agency, Attn: RES

THE NAVAJO NATION

Minerals Department
Post Office Box 1910
Window Rock, AZ 86515
Telephone: (928) 871-6587
Fax: (928) 871-7095

Russell Begaye
President

Jonathan Nez
Vice-President

N420

RECEIVED
REGIONAL DIRECTOR
2015 JUL 8 PM 12 19
NAVAJO REGIONAL OFFICE

July 2, 2015

Ms. Sharon Pinto, Regional Director
Navajo Region, U. S. Bureau of Indian Affairs
Post Office Box 1060
Gallup, New Mexico 87305

RE: LEASES/PERMITS (MINERALS) N425

Dear Ms. Pinto:

This is in response to your letter dated June 23, 2015 concerning the February 2016 Competitive Oil and Gas Lease Sale including lands located within the exterior boundaries of the Navajo Indian Reservation in an area commonly referred to as the McCracken Extension area. The Navajo Nation recommends excluding the following tracts from the referenced lease sale due to continuing controversies regarding the status of the lands in the McCracken Extension:

UT0-216—026;
UT0-216—037; and
UT0-216—038.

If you have any questions, please call me or Mr. Steven Prince, Principal Petroleum Engineer at 928-871-6587.

Sincerely,

Akhtar Zaman, Director
Minerals Department

xc: Bertha Spencer, Supv. Realty Specialist, BIA
File
Lease Files

RECEIVED
JUL 14 2015

RECEIVED
JUL 14 2015

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Utah State Office
440 West 200 South, Suite 500
Salt Lake City, UT 84101
http://www.blm.gov/ut/st/en.html

IN REPLY REFER TO:
3100
LLUT922000

MAY 2 2 2015

RECEIVED
JUN - 1 2015

Ryan Hunter
Navajo Region Realty Officer
Bureau of Indian Affairs-Navajo Regional Office
P. O. Box 1060, M/C N420
301 W. Hill Ave., Suite 301
Gallup, New Mexico 87301

Re: February 2016 Competitive Oil and Gas Lease Sale

Dear Mr. Hunter:

The enclosed list of lands with Indian surface and Federal minerals can be offered at a future competitive oil and gas lease sale with your concurrence. Please review the enclosed list of lands for potential concerns or conflicts. Any concerns your office may have with parcels on the list of lands included in the preliminary listing should be directed to the Bureau of Land Management (BLM) Canyon Country District Office, 82 East Dogwood, Moab, Utah 84532, with a courtesy copy to the attention of Justin Abernathy, BLM Utah State Office, 440 West 200 South, Suite 500, Salt Lake City, UT 84101, no later than August 3, 2015, so that your concerns may be addressed prior to making a leasing recommendation.

If members of your organization are interested in attending a site visit, please contact Cliff Giffen at (435) 587-1524 or cgiffen@blm.gov within two weeks of the date of this letter.

Please provide this office with the appropriate stipulations that will be made part of a lease when issued. If you have any questions, please contact Doug Rowles at the address above or Becky Hammond at bhammond@blm.gov or (801) 539-4039.

Sincerely,

for Roger L Bankert

Kent Hoffman
Deputy State Director
Division of Lands & Minerals

Enclosure
1. List of Lands

cc: BLM Field Office Manager – Moab (UTY01) & Monticello (UTY02)

RECEIVED
#299
JUN - 9 2015
NAVAJO REGION OFFICE
MINERALS SECTION

List of Lands

UT0216 - 026
T. 39 S., R. 22 E., Salt Lake
Sec. 24: SESE (All lands within Navajo Reservation Withdrawal);
Sec. 25: NE, E2NW, NESW, S2SW, SE (All lands within Navajo Reservation Withdrawal).
356.52 Acres
San Juan County
Monticello Field Office

RECEIVED
JUN - 9 2017
NAVAJO REGIONAL OFFICE
MINERALS SECTION

UT0216 - 037
T. 38 S., R. 23 E., Salt Lake
Sec. 33: All.
640.00 Acres
San Juan County
Monticello Field Office

UT0216 - 038
T. 39 S., R. 23 E., Salt Lake
Sec. 5: Lots 1, 2, S2NE, SE;
Sec. 8: SE.
~~799~~ 47.31 Acres
San Juan County
Monticello Field Office

San Juan County

sanjuancounty.org

2015 JUN 29 AM 9:29

SAN JUAN COUNTY
PLANNING DEPARTMENT

June 25, 2015

Don Hoffheins, Field Manager
Monticello Field Office
Bureau of Land Management
P.O. Box 7
Monticello, UT 84535

RE: Proposed February 2016 Oil and Gas Lease Sale

Dear Don:

We are concerned with the small number of parcels and acreage in the preliminary list for the February 2016 Oil and Gas Lease Sale. Approximately 5694 acres in 8 parcels are on this list. This is considerably less than the 48 parcels totaling approximately 48,400 acres in the preliminary list for the February 2015 sale.

We do not know why so few parcels are on this list. However, we understand that some nominated parcels have been deferred due to a proposed adjustment to the Glen Canyon-San Juan River Master Leasing Plan boundary. We don't know the rationale for such a boundary adjustment but are concerned that it will not be conducive to leasing.

Previous lease sales have deferred parcels for various reasons including lands with wilderness character, high cultural site density and wildlife habitat. We have not agreed with much of this rationale. It appears that additional rationale is now being used to defer lands from potential lease.

Any deferral of parcels from lease negatively affects San Juan County's tax base and lease revenues. The majority of County tax revenues come from centrally assessed properties of which oil and gas facilities are a major component. The County also receives revenue from oil and gas lease sales. If leases aren't sold, the County has no opportunity to collect this revenue.

We fully support the proposed leasing of those 8 parcels within San Juan County on the proposed parcel list in accordance with leasing stipulations from the Moab and Monticello Resource Management Plans. We encourage reconsideration and inclusion of any parcels which may have previously been deferred from preliminary listing for lease.

Sincerely,

Nick Sandberg

Nick Sandberg
Public Lands Coordinator/Planner

cc: Moab Field Office Manager
✓Canyon Country District Manager

P.O. Box 9 • 117 South Main Street • Monticello, Utah 84535-0009 • 435-587-3225 • Fax 435-587-2447

State of Utah

GARY R. HERBERT
Governor

SPENCER J. COX
Lieutenant Governor

Office of the Governor
PUBLIC LANDS POLICY COORDINATING OFFICE

KATHLEEN CLARKE
Director

August 3, 2015

Sent via email: khoffman@blm.gov

Kent Hoffman
Deputy State Director
Bureau of Land Management
440 West 200 South, Suite 500
Salt Lake City, UT 84101

Subject: February 2016 Competitive Oil and Gas Lease Sale - Scoping
RDCC Project Number: 48525

Dear Mr. Hoffman:

The State of Utah appreciates the opportunity to review and comment on the proposed preliminary parcels nominated for the February 2016 Competitive Oil and Gas Lease Sale located in Grand and San Juan counties. The state favors oil and gas leasing as an important addition to the state's economy, while taking prudent steps to protect important environmental values. As such, the Utah Division of Wildlife Resources (UDWR) has prepared technical comments to minimize the impact to fish and wildlife as well as their habitats as potential energy development is evaluated and authorized.

The attached scoping technical comments are offered to provide the BLM with information, which may be useful in the creation of stipulations or conditions of leasing or as information to be considered as part of the Application for a Permit to Drill once the parcels are leased. Please direct any other written questions regarding this correspondence to the Public Lands Policy Coordinating Office at the address below, or call to discuss any questions or concerns.

Sincerely,

Kathleen Clarke
Director

Technical Comments

Sale ID parcels 065 and 066 occur within Gunnison sage-grouse winter habitat. Avoidance of disturbances to Gunnison sage-grouse and their habitat is the preferred mitigation option. If avoidance is not feasible, UDWR recommends following the general guidelines and thresholds developed over the past decade from research on greater sage–grouse.

No permanent disturbance should be permitted within one mile of a lek, unless the disturbance is obscured by topographical features and thus not visible to sage-grouse using the lek. Disturbance outside the lek should not be permitted to generate noise which rises more than 10 dB above the background level at the edge of the lek during the breeding season.

Compensatory mitigation of the disturbance within sage-grouse habitat is desirable if a disturbance cannot be avoided completely. Mitigation should be carried out at a 4:1 ratio -- for every one acre disturbed, 4 acres of habitat should be restored as compensation. If actual project acres cannot be immediately restored and mitigated, a mitigation payment should be considered, payable prior to development, which fully accounts for the cost of carrying out sufficient habitat restoration treatments.

BLM should avoid permitting activities (construction, vehicle noise, etc.) in the vicinity of active leks from February 15 - May 15, and in winter habitats, from November 15 - March 15. Last, BLM should avoid authorizing construction which could disturb nesting or brood-rearing activity from April 1 - August 15. During the breeding season, BLM should require time-of-day stipulations (i.e., no activity from two hours before sunrise until two hours after sunrise) at times when the lek is occupied.

Sale ID parcels 001-004, 026, 037, 038, 063, 064, 065, 066, and 070 contain potential raptor nesting habitat. We recommend that raptor surveys be conducted if construction activities are to occur within these parcels during nesting, brood rearing, and fledging times. Please reference U.S. Fish and Wildlife Service (USFWS) dates and spatial buffers for individual raptor species at http://www.fws.gov/utahfieldoffice/migbirds.html.

Sale ID parcels 001, 002, 003, 004, 063, 064, 065 and 066 are found within crucial winter habitat for mule deer. UDWR recommends no construction, drilling, or completion activities from December 1 to April 15 within these parcels.

Sale ID parcel 064 contains crucial elk habitat. UDWR recommends that no construction, drilling, or completion activities be permitted to occur from December 1 to April 15, to avoid added stress during the winter season.

Sale ID parcels 002, 003, 004, and 005 are found within crucial pronghorn habitat. UDWR recommends no construction, drilling, or completion activities within these parcels during the fawning period (April 15 to June 15).

Sale ID parcel 026 contains part of Recapture Creek. Recapture Creek is a tributary of the San Juan River which provides habitat for several conservation species of fish: flannelmouth sucker, bluehead sucker, and roundtail chub. The San Juan River also provides habitat for two endangered fish: the razorback sucker and the Colorado pikeminnow. Precautions should be taken to avoid allowing contaminants or additional sediments to enter Recapture Creek.

Sale ID parcels 001, 002, 003, 004, and 005 contain potential white-tailed prairie dog habitat. Sale ID parcels 037, 038, 063, 064, 065, 066, and 070 contain potential Gunnison's prairie dog habitat. UDWR recommends a survey for prairie dog colonies within 0.25 miles of planned disturbance. If prairie dog colonies are found, they should be avoided to the extent possible. UDWR recommends that no disturbance be permitted to occur within 200 yards of colonies. If this is not possible, UDWR asks that no disturbance be permitted to occur during the pupping season, which extends from April 1 to June 15.

Where prairie dog colonies are found, a survey for burrowing owls should be conducted. If burrowing owls are located, we recommend a closure period of no construction, drilling, or completion activities within 0.25 miles of occupied owl burrows during the nesting season from April 1 to July 15.

Sale ID parcels 002, 003, and 004 either contain wildlife guzzlers or have guzzlers located quite nearby. The purpose of these wildlife guzzlers is to catch and store rain water for wildlife (e.g., Rocky Mountain bighorn sheep) to drink during the dry times of the year. These guzzlers also can be critical for wildlife populations during drought years. To avoid the potential reductions in the use of these guzzlers by wildlife, UDWR would recommend preventing any disturbance within 0.5 miles of these guzzlers during the active period of June 1 to October 1, and precluding the location of well pads or other permanent above-ground structures within 0.5 miles of these guzzlers, irrespective of season. Local UDWR biologists should be contacted to identify the precise locations of these guzzlers, and to help refine strategies to avoid, reduce or mitigate potential reductions in use by wildlife.

Appendix F

Public Participation

Scoping Comments

Notes:

1. In order to capture the nature of the comment, BLM has either extracted statements in their entirety, brought forward portions of the statements or has summarized the statement for presentation in this table.
2. A number of comments expressed opinions or the commenter was unidentifiable. These comments are not listed in this table.

Comment Number	Resource	Name/Organization	Comment Text	BLM Response
1	Cultural Resources	Baker, Pamela and Quentin	Portions of parcel 003 contain documented historic and prehistoric sites and should be deferred.	Parcel 003 will have lease notices UT-LN-67, UT-LN-68, UT-LN-69, and UT-LN-70 attached to the parcel informing the lessee that modifications to the surface use plan may be required to protect the historic integrity of the resources.
2	NEPA Process	SUWA, Southern Utah Wilderness Alliance - Landon Newell, Staff Attorney	The BLM must conduct environmental analysis at the leasing stage while the agency still retains full discretion regarding its management decisions.	The BLM is in the process of preparing an EA for the Canyon Country District February 2016 Competitive Oil and Gas Lease Sale.
3	Multiple Resources	SUWA, Southern Utah Wilderness Alliance - Landon Newell, Staff Attorney	SUWA expressed concern regarding resource issues of air quality, surface water quality, lands with wilderness characteristics, wildlife/migratory birds/raptors, Gunnison sage-grouse, ACECs, and historic trails.	All of these resource issues are addressed in the EA as appropriate after review by BLM resource specialists and documented in the ID team checklist.
4	BLM Policy Compliance	SUWA, Southern Utah Wilderness Alliance - Landon Newell, Staff Attorney	SUWA expressed concerns regarding: BLM compliance with WO IM No. 2010-117; VRM inventories under preparation.	The NEPA process currently underway complies with the WO IM No. 2010-117. Updated VRM inventories have been completed in the MbFO area and are in progress in the MtFO area. BLM management decisions are not guided by these updated VRM inventories. BLM management decisions are guided by the management decisions in the respective RMPs.
5	BLM Policy Compliance	SUWA, Southern Utah Wilderness Alliance - Landon Newell, Staff Attorney	SUWA express concerns regarding leasing of parcels within the San Juan Master Leasing Plan area.	One parcel, UT0216-070, is located within the boundary of the San Juan MLP boundary; therefore, parcel 070 is deferred.
6	Wildlife	Utah, State of	Multiple recommendations regarding protection of big game, species of concern, and wildlife habitat.	The BLM has reviewed these recommendations and, when different from the BLM stipulation and lease notice information, has applied appropriate lease notices to parcels. These include lease notices regarding raptors, migratory birds, deer and elk winter range, and pronghorn and bighorn sheep habitat.

Comment Number	Resource	Name/Organization	Comment Text	BLM Response
7		San Juan County	… we understand that some nominated parcels have been deferred due to a proposed adjustment to the Glen Canyon-San Juan River Master Leasing Plan boundary. We encourage reconsideration and inclusion of any parcels which may have previously been deferred from preliminary listing for lease.	The commenter is correct; many parcels were not included in the preliminary list due to a proposed change in the master leasing plan area boundary. BLM cannot reconsider including parcels within the proposed master leasing plan boundary adjustment area without violating current Washington and Utah State Office policy. In accordance with current BLM leasing policy (WO IM No. 2010-117) and the BLM Utah State Office OIL AND GAS LEASING REFORM IMPLEMENTATION PLAN, Where MLPs are considered and determined to be necessary at this time, parcel-specific NEPA analysis will be not undertaken to consider EOIs and other proposals to lease
8		The Navajo Tribe	The Navajo Nation recommends excluding the following tracts from the referenced lease sale due to continuing controversies regarding the status of the lands in the McCracken Extension: UT0216-026; UT0216-037; and UT0216-038.	The BLM will not offer these lease parcels for sale without the concurrence of the Navajo Tribe. Therefore, these parcels are recommended for deferral.
9		Holland and Hart	With no explanation, the BLM failed to offer several parcels nominated for leasing-including nominated parcels bordering the few parcels now proposed for leasing in the southern section of the Monticello Field Office… The BLM's regulations state that oil and gas in public domain lands ... are subject to lease under the Mineral Leasing Act of 1920, as amended." 43 C.F.R. § 3100.0-3(a). All of the nominated lands are designated for oil and gas leasing, with standard stipulations, by the Monticello Field Office Resource Management Plan	Many nominated parcels were not included on the preliminary parcel list because they are located within the proposed master leasing plan boundary adjustment area. BLM cannot lease in master leasing plan areas without violating current leasing policy (see comment 7). 43 CFR 3101.7–2(b) also states: "… the Secretary has the final authority and discretion to decide to issue a lease." The commenter is correct, the Monticello FO RMP does designate the nominated lands as available for oil and gas leasing subject to standard terms and conditions. However, BLM has determined that additional planning and analysis may be necessary prior to new oil and gas leasing within the proposed master leasing plan boundary adjustment area because of changing circumstances, updated policies, and new information. (See also comment #7)

APPENDIX G

Lands with Wilderness Character Inventory

FORM 1

Documentation of BLM Wilderness Characteristics Inventory Findings from Previous Inventory on Record

1. Is there existing BLM wilderness characteristics inventory information on all or part of this area?

No (Go to Form 2) **Yes** X

a) Inventory Source: The initial inventory of this area was undertaken as part of the 1978-79 Utah Statewide Initial Wilderness Inventory, and consisted of several subunits (UT 146, 147, 148 and 149). Based on that review, the area in question was not forwarded for intensive inventory, citing an overall lack of naturalness. Subsequently, as part of the Moab FO RMP process, an interdisciplinary review team undertook an in-office review of the Coyote Wash proposal as gleaned from the Southern Utah Wilderness Alliance (SUWA) website, and included in that year's version of the Congressional Red Rock wilderness bill. The original SUWA proposal (and still part of the Red Rock wilderness legislation proposed in Congress) encompassed 31,392 acres. No information other than a web-based map was provided by SUWA to BLM that would indicate that BLM's original findings were incorrect.

Based on the in-office review, Moab BLM concluded that the area in question was sufficiently bisected by roads and other impacts to naturalness to preclude a determination that the area possessed wilderness characteristics. (At the time of this determination, BLM's Wilderness Inventory Manual had been withdrawn, and the only available guidance was IM 275-Change 1).

In response to a proposed oil and gas lease sale, SUWA provided Moab BLM with new information which follows the requirements of Manual 6310, consisting of a map, a detailed narrative and photographic documentation. The new proposal was a greatly reduced (in acreage) version of the proposal reviewed in 2007. Moab BLM determined that the new proposal (which eliminates many of the most egregious impacts noted in BLM's 2007 review) merited an on-the-ground inventory.

b) Inventory Area Unique Identifier(s): UT 060-146-149 ("Coyote Wash" based on SUWA name). For purposes of this review, BLM has divided the proposal into 3 subunits, each of which has its own separate report:

1. Coyote Wash West WC

2. Coyote Wash East WC

3. Coyote Wash East NWC

c) **Map Name(s)/Number(s):** Coyote Wash Wilderness Characteristics Review-Field Maps A-D, SUWA proposal 2-15-13, Coyote Wash photo points, Coyote Wash Route Map, Coyote Wash Inventory Findings

d) BLM District(s)/Field Office(s): Canyon Country District/Moab Field Office

2. BLM Inventory Findings on Record: see discussion under 1 (a), above

FORM 2: Current Conditions: Presence or Absence of Wilderness Characteristics

Area Unique Identifier: Coyote Wash West WC

Acreage 14768

(1) Is the area of sufficient size?

Yes _X_ No__

Description: The starting point for the acreage considered for wilderness characteristics inventory consisted of the map and shapefile provided by SUWA. These materials included a proposal of 17,541 acres. Based on BLM's inventory, the original proposal was subdivided into three parcels, two of which were determined to possess wilderness characteristics. This acreage excluded several "cherry-stems" to account for several travel routes and several exclusions along boundary routes (including along the aforementioned cherry-stem routes) to exclude roadside impacts to naturalness. The current BLM inventory also excluded those areas which were not in the amended SUWA proposal.

Prior to undertaking field checks, BLM scrutinized aerial photos (NAIP, 2011) to identify potential impacts to naturalness. These potential impact points were added to GIS, and used in the field. The aerial photos showed numerous seismic line impacts; many of these, however, had been cherry-stemmed by SUWA in their proposal. Many of the others, given their age and current condition, were not impacts generally noticeable by the average visitor, in BLM's opinion.

Based on four field trips undertaken by the BLM, additional acreage was removed from the acreage asserted to possess wilderness characteristics. These exclusions are justified by impacts, primarily from past and present minerals activity that renders certain areas unnatural in appearance to the average observer. These exclusions are:

A) An area in the NW corner of the SUWA proposal (107 acres). In this area, Route 6 closely parallels the western SUWA boundary. Route 6 receives moderate use and is almost continuously visible from the western boundary road.
B) An area in the southwest corner of the SUWA proposal (10 acres). A recently constructed water pipeline (and associated ROW) in this area renders this are too small to stand alone as a wilderness characteristics unit.
C) A larger area along the eastern boundary of the SUWA proposal (2704 acres). This area is cut off from the larger area by Route 1 and by the Utah/Colorado border. The northern half of this area contains numerous impacts from past minerals exploration, including access routes, drill pads and seismic exploration lines. Although none of these are on the MFO travel plan, and would not be considered "Wilderness Roads", the overall impact to naturalness is substantial. This area is discussed separately under the heading Coyote Wash East NWC.

   The southern half of Area C, however, is largely natural. This area is discussed

separately under the heading Coyote Wash East WC.

D) BLM determined that several routes not cherry-stemmed by SUWA in their proposal either qualified as Wilderness Roads, or constituted sufficient impacts to naturalness to be cherry-stemmed. These are routes 7-9, 17-18 and 20 on the accompanying maps.

(2) Does the area appear to be natural?

Yes _X_ No _____ N/A ___(after exclusions described in Part 1, above)

Although aerial photo review shows numerous scars from past mining activities, most of these are substantially unnoticeable on the ground to the average user. As such, they meet the definition of naturalness as described in Manual 6310. That manual indicates that linear features (such as seismic lines) may be considered part of a natural landscape if they are not substantially noticeable to the average user.

The mesa tops typically have existing roads, usually on a relatively straight line to the edge of the mesa. These have been "cherry-stemmed" by SUWA. The canyon bottoms are substantially natural in appearance.

(3) Does the area (or the remainder of the area if a portion has been excluded due to unnaturalness and the remainder is of sufficient size) have outstanding opportunities for solitude?

Yes__X__ No_____ N/A____

These opportunities are present primarily in the canyon bottoms, rather than on the mesa tops. The canyon bottoms themselves are of sufficient acreage and topographical variations to provide these opportunities.

(4) Does the area (or the remainder of the area if a portion has been excluded due to unnaturalness and the remainder is of sufficient size) have outstanding opportunities for primitive and unconfined recreation?

Yes__X__ No_____ N/A__

These opportunities are present primarily in the canyon bottoms, rather than on the mesa tops. The canyon bottoms themselves are of sufficient acreage and topographical variations to provide these opportunities.

(5) Does the area have supplemental values (ecological, geological, or other features of scientific, educational, scenic or historical value)?

Yes_____ No__X____ N/A_____

Summary of Analysis

Area Unique Identifier: Coyote Wash West
WC

Summary

Results of analysis: See discussion under 1 (a) in Form 1

1. Does the area meet any of the size requirements? Yes X No___

2. Does the area appear to be natural? Yes X No ___ N/A_____

3. Does the area offer outstanding opportunities for solitude or a primitive and unconfined type of recreation? Yes X No ___ N/A ___

4. Does the area have supplemental values? Yes ___ No X N/A ___

Check one:

X___ The area, or a portion of the area, has wilderness characteristics and is identified as lands with wilderness characteristics.

_____The area does not have wilderness characteristics.

Prepared by: William P. Stevens, Outdoor Recreation Planner, Moab BLM, June 10, 2014

Reviewed by (District or Field Manager):

Name: Beth Ransel Title: Field Manager
Beth Ransel

Date: 7/14/14

This form documents information that constitutes an inventory finding on wilderness characteristics. It does not represent a formal land use allocation or a final agency decision subject to administrative remedies under either 43 CFR parts 4 or 1610.5-3.

FORM 1

Documentation of BLM Wilderness Characteristics Inventory Findings from Previous Inventory on Record

1. Is there existing BLM wilderness characteristics inventory information on all or part of this area?

No (Go to Form 2) **Yes** X

a) Inventory Source: The initial inventory of this area was undertaken as part of the 1978-79 Utah Statewide Initial Wilderness Inventory, and consisted of several subunits (UT 146, 147, 148 and 149). Based on that review, the area in question was not forwarded for intensive inventory, citing an overall lack of naturalness. Subsequently, as part of the Moab FO RMP process, an interdisciplinary review team undertook an in-office review of the Coyote Wash proposal as gleaned from the Southern Utah Wilderness Alliance (SUWA) website, and included in that year's version of the Congressional Red Rock wilderness bill. The original SUWA proposal (and still part of the Red Rock wilderness legislation proposed in Congress) encompassed 31,392 acres. No information other than a web-based map was provided by SUWA to BLM that would indicate that BLM's original findings were incorrect.

Based on the in-office review, Moab BLM concluded that the area in question was sufficiently bisected by roads and other impacts to naturalness to preclude a determination that the area possessed wilderness characteristics. (At the time of this determination, BLM's Wilderness Inventory Manual had been withdrawn, and the only available guidance was IM 275-Change 1).

In response to a proposed oil and gas lease sale, SUWA provided Moab BLM with new information which follows the requirements of Manual 6310, consisting of a map, a detailed narrative and photographic documentation. The new proposal was a greatly reduced (in acreage) version of the proposal reviewed in 2007. Moab BLM determined that the new proposal (which eliminates many of the most egregious impacts noted in BLM's 2007 review) merited an on-the-ground inventory.

b) Inventory Area Unique Identifier(s): UT 060-146-149 ("Coyote Wash" based on SUWA name). For purposes of this review, BLM has divided the proposal into 3 subunits, each of which has its own separate report:

1. Coyote Wash West WC

2. Coyote Wash East WC

3. Coyote Wash East NWC

c) Map Name(s)/Number(s): Coyote Wash Wilderness Characteristics Review-Field Maps A-D, SUWA proposal 2-15-13, Coyote Wash photo points, Coyote Wash Route Map, Coyote Wash Inventory Findings

d) **BLM District(s)/Field Office(s):** Canyon Country District/Moab Field Office

2. **BLM Inventory Findings on Record:** see discussion under 1 (a), above

FORM 2: Current Conditions: Presence or Absence of Wilderness Characteristics

Area Unique Identifier: Coyote Wash East WC

Acreage 1609

(1) Is the area of sufficient size?

Yes _X_ No__

Description: The starting point for the acreage considered for wilderness characteristics inventory consisted of the map and shapefile provided by SUWA. These materials included a proposal of 17,541 acres. Based on BLM's inventory, the original proposal was subdivided into three parcels, two of which were determined to possess wilderness characteristics. This acreage excluded several "cherry-stems" to account for several travel routes and several exclusions along boundary routes (including along the aforementioned cherry-stem routes) to exclude roadside impacts to naturalness. The current BLM inventory also excluded those areas which were not in the amended SUWA proposal.

Prior to undertaking field checks, BLM scrutinized aerial photos (NAIP, 2011) to identify potential impacts to naturalness. These potential impact points were added to GIS, and used in the field. The aerial photos showed numerous seismic line impacts; many of these, however, had been cherry-stemmed by SUWA in their proposal. Many of the others, given their age and current condition, were not impacts generally noticeable by the average visitor, in BLM's opinion.

Based on four field trips undertaken by the BLM, additional acreage was removed from the acreage asserted to possess wilderness characteristics. These exclusions are justified by impacts, primarily from past and present minerals activity that renders certain areas unnatural in appearance to the average observer. These exclusions are:

A) An area in the NW corner of the SUWA proposal (107 acres). In this area, Route 6 closely parallels the western SUWA boundary. Route 6 receives moderate use and is almost continuously visible from the western boundary road.
B) An area in the southwest corner of the SUWA proposal (10 acres). A recently constructed water pipeline (and associated ROW) in this area renders this are too small to stand alone as a wilderness characteristics unit.
C) A larger area along the eastern boundary of the SUWA proposal (2704 acres). This area is cut off from the larger area by Route 1 and by the Utah/Colorado border. The northern half of this area (1095 acres) contains numerous impacts from past minerals exploration, including access routes, drill pads and seismic exploration lines. Although none of these are on the MFO travel plan, and would not be considered "Wilderness Roads", the overall impact to naturalness is substantial. This area is discussed separately under the heading Coyote Wash East NWC.

Although too small (1609 acres) to qualify as a stand-alone wilderness characteristics area, the southern half of (C), above, adjoins an area determined by the Tres Rios, Colorado, FO to

possess wilderness characteristics. The southern half of Area C, therefore, possesses wilderness characteristics because it adjoins the WC area in Colorado. The WC area in Colorado, in turn, possesses WC only because it adjoins a Wilderness Study Area.

The non-matching shapes of the areas in Utah and Colorado are due to the two Field Offices using different procedures to determine wilderness characteristics. (The Tres Rios FO made its determination prior to the issuance of Manual 6310).

(2) Does the area appear to be natural?

Yes _X_ No ____ N/A___ (after exclusions described in Part 1, above)

After redrawing the boundaries of the subunit to exclude the impacts present in Coyote Wash East NWC (discussed separately), the area appears substantially natural and shares the overall naturalness of the adjoining area in Colorado.

(3) Does the area (or the remainder of the area if a portion has been excluded due to unnaturalness and the remainder is of sufficient size) have outstanding opportunities for solitude?

Yes___ No____ N/A _X_

The subunit possesses outstanding opportunities for solitude only in association with the adjoining acreage found to possess WC by the Tres Rios FO.

(4) Does the area (or the remainder of the area if a portion has been excluded due to unnaturalness and the remainder is of sufficient size) have outstanding opportunities for primitive and unconfined recreation?

Yes____ No____ N/A _X_

The subunit possesses outstanding opportunities for solitude only in association with the adjoining acreage found to possess WC by the Tres Rios FO.

(5) Does the area have supplemental values (ecological, geological, or other features of scientific, educational, scenic or historical value)?

Yes_____ No__X____ N/A_____

Summary of Analysis

Area Unique Identifier: Coyote Wash East WC

Summary

Results of analysis: See discussion under 1 (a) in Form 1

1. Does the area meet any of the size requirements? Yes X No___

2. Does the area appear to be natural? Yes X No ___ N/A_____

3. Does the area offer outstanding opportunities for solitude or a primitive and unconfined type of recreation? Yes X No ___ N/A _____

4. Does the area have supplemental values? Yes ___ No X N/A ___

Check one:

X ___The area, or a portion of the area, has wilderness characteristics and is identified as lands with wilderness characteristics.

_____The area does not have wilderness characteristics.

Prepared by: William P. Stevens, Outdoor Recreation Planner, Moab BLM, June 10, 2014

Reviewed by (District or Field Manager):

Name: Beth Ransel Title: Field Manager

Date: 7/14/14

This form documents information that constitutes an inventory finding on wilderness characteristics. It does not represent a formal land use allocation or a final agency decision subject to administrative remedies under either 43 CFR parts 4 or 1610.5-3.

BLM MANUAL Rel. No. 6-129 Supersedes Rel. 6-126 Date: 03/15/2012

FORM 1

Documentation of BLM Wilderness Characteristics Inventory Findings from Previous Inventory on Record

1. Is there existing BLM wilderness characteristics inventory information on all or part of this area?

No (Go to Form 2) **Yes** X

a) Inventory Source: The initial inventory of this area was undertaken as part of the 1978-79 Utah Statewide Initial Wilderness Inventory, and consisted of several subunits (UT 146, 147, 148 and 149). Based on that review, the area in question was not forwarded for intensive inventory, citing an overall lack of naturalness. Subsequently, as part of the Moab FO RMP process, an interdisciplinary review team undertook an in-office review of the Coyote Wash proposal as gleaned from the Southern Utah Wilderness Alliance (SUWA) website, and included in that year's version of the Congressional Red Rock wilderness bill. The original SUWA proposal (and still part of the Red Rock wilderness legislation proposed in Congress) encompassed 31,392 acres. No information other than a web-based map was provided by SUWA to BLM that would indicate that BLM's original findings were incorrect.

Based on the in-office review, Moab BLM concluded that the area in question was sufficiently bisected by roads and other impacts to naturalness to preclude a determination that the area possessed wilderness characteristics. (At the time of this determination, BLM's Wilderness Inventory Manual had been withdrawn, and the only available guidance was IM 275-Change 1).

In response to a proposed oil and gas lease sale, SUWA provided Moab BLM with new information which follows the requirements of Manual 6310, consisting of a map, a detailed narrative and photographic documentation. The new proposal was a greatly reduced (in acreage) version of the proposal reviewed in 2007. Moab BLM determined that the new proposal (which eliminates many of the most egregious impacts noted in BLM's 2007 review) merited an on-the-ground inventory.

b) Inventory Area Unique Identifier(s): UT 060-146-149 ("Coyote Wash" based on SUWA name). For purposes of this review, BLM has divided the proposal into 3 subunits, each of which has its own separate report:

1. Coyote Wash West WC

2. Coyote Wash East WC

3. Coyote Wash East NWC

c) **Map Name(s)/Number(s):** Coyote Wash Wilderness Characteristics Review-Field Maps A-D, SUWA proposal 2-15-13, Coyote Wash photo points, Coyote Wash Route Map, Coyote Wash Inventory Findings

d) BLM District(s)/Field Office(s): Canyon Country District/Moab Field Office

2. BLM Inventory Findings on Record: see discussion under 1 (a), above

FORM 2: Current Conditions: Presence or Absence of Wilderness Characteristics

Area Unique Identifier: Coyote Wash East NWC

Acreage 1095

(1) Is the area of sufficient size?

Yes _ No X

Description: The starting point for the acreage considered for wilderness characteristics inventory consisted of the map and shapefile provided by SUWA. These materials included a proposal of 17,541 acres. Based on BLM's inventory, the original proposal was subdivided into three parcels, two of which were determined to possess wilderness characteristics. This acreage excluded several "cherry-stems" to account for several travel routes and several exclusions along boundary routes (including along the aforementioned cherry-stem routes) to exclude roadside impacts to naturalness. The current BLM inventory also excluded those areas which were not in the amended SUWA proposal.

Prior to undertaking field checks, BLM scrutinized aerial photos (NAIP, 2011) to identify potential impacts to naturalness. These potential impact points were added to GIS, and used in the field. The aerial photos showed numerous seismic line impacts; many of these, however, had been cherry-stemmed by SUWA in their proposal. Many of the others, given their age and current condition, were not impacts generally noticeable by the average visitor, in BLM's opinion. An exception to this is discussed below under the heading Coyote Wash East NWC.

Based on four field trips undertaken by the BLM, additional acreage was removed from the acreage asserted to possess wilderness characteristics. These exclusions are justified by impacts, primarily from past and present minerals activity that renders certain areas unnatural in appearance to the average observer.

A larger area along the eastern boundary of the SUWA proposal (1095 acres) was determined by BLM to be largely unnatural in character, and is cut off from Coyote Wash East WC by a substantially noticeable route originating in Colorado Although not on the travel plan for Moab BLM, the route is heavily constructed and receives regular use. Coyote Wash East NWC is cut off from the larger Coyote Wash West NWC by Route 1, which BLM has determined is a Wilderness Road. Finally, the area is bordered by the Colorado state line. The lands in Colorado are managed by the Uncompahgre FO, and are in an open OHV category. They have not been identified as possessing wilderness characteristics.

(2) Does the area appear to be natural?

Yes _No ___ N/A _X

The northern half of this area contains numerous impacts from past minerals exploration, including access routes, drill pads and seismic exploration lines. Although none of these are on the MFO travel plan, and would not be considered "Wilderness Roads", the overall impact to naturalness is substantial. Regardless of naturalness or lack thereof, the unit is too small to possess wilderness characteristics as a stand-alone unit.

(3) Does the area (or the remainder of the area if a portion has been excluded due to unnaturalness and the remainder is of sufficient size) have outstanding opportunities for solitude?

Yes____ No____ N/A_X

(4) Does the area (or the remainder of the area if a portion has been excluded due to unnaturalness and the remainder is of sufficient size) have outstanding opportunities for primitive and unconfined recreation?

Yes____ No____ N/A _X

(5) Does the area have supplemental values (ecological, geological, or other features of scientific, educational, scenic or historical value)?

Yes_____ No_____ N/A _X

Summary of Analysis

Area Unique Identifier: Coyote Wash East
NWC

Summary

Results of analysis: See discussion under 1 (a) in Form 1

1. Does the area meet any of the size requirements? Yes___ No_X

2. Does the area appear to be natural? Yes__No ___ N/A_X_____

3. Does the area offer outstanding opportunities for solitude or a primitive and unconfined type of recreation? Yes__No ___ N/A _X_____

4. Does the area have supplemental values? Yes ___ No___ N/A _X_____

Check one:

____The area, or a portion of the area, has wilderness characteristics and is identified as lands with wilderness characteristics.

__X__The area does not have wilderness characteristics.

Prepared by: William P. Stevens, Outdoor Recreation Planner, Moab BLM, June 10, 2014

Reviewed by (District or Field Manager):

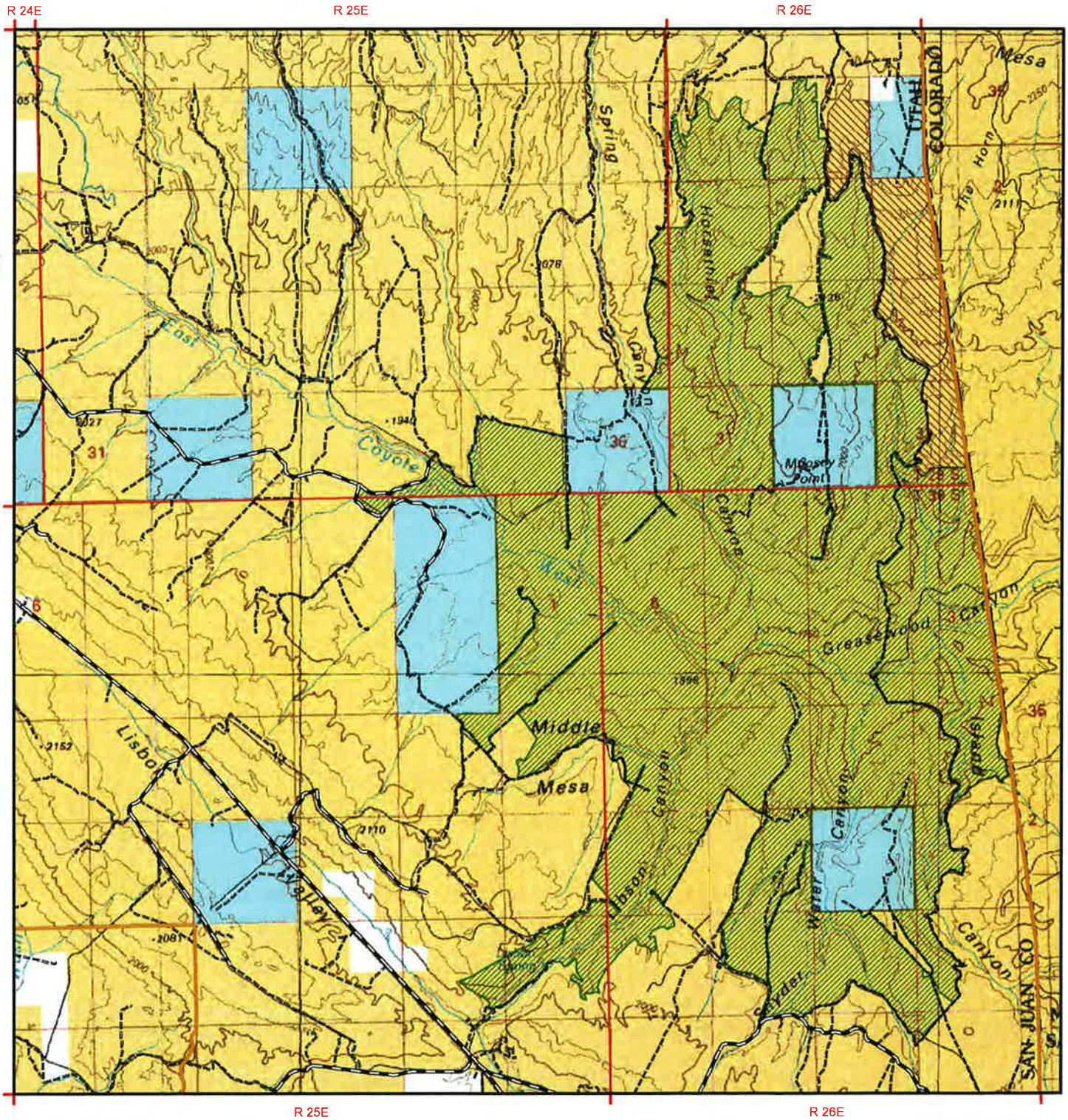
Name: Beth Ransel Title: Field Manager
Beth Ransel

Date: 7/14/14

This form documents information that constitutes an inventory finding on wilderness characteristics. It does not represent a formal land use allocation or a final agency decision subject to administrative remedies under either 43 CFR parts 4 or 1610.5-3.
BLM MANUAL Rel. No. 6-129 Supersedes Rel. 6-126 Date: 03/15/2012

Coyote Wash Wilderness Characteristic Review - 2014

Bureau of Land Management
Moab Field Office



Location Map
Utah BLM Field Office Boundaries

Date: 4/21/2015

2014 Wilderness Character Review Findings

- Wilderness Characteristics
- No Wilderness Characteristics

0 0.5 1 Kilometers

0 0.5 1 Miles

N W E S

- B Roads (Maintained)
- D Roads (Unmaintained)
- Township and Range
- Field Office Boundary

Land Status

- Bureau of Land Management (BLM)
- Private
- State

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data.

Appendix H

Native American and SHPO Consultation

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Moab Field Office
82 East Dogwood
Moab, Utah 84532
http://www.blm.gov/ut/st/en/fo/moab.html

Forsell 8/6/15

In Reply Refer To:
3120/8111

AUG 11 2015

CERTIFIED MAIL RETURN RECEIPT REQUESTED
Certification No: [redacted]

[redacted]

Dear Chairman Heart,

At this time, in accordance with Section 106 of the National Historic Preservation Act and its implementing regulations, 36 CFR Part 800, The Bureau of Land Management (BLM) Canyon Country District (CCYD) wishes to initiate Native American consultation on parcels nominated for the February 2016 Competitive Oil and Gas Lease Sale. The BLM is preparing an Environmental Assessment (EA) (DOI-BLM-UT-Y020-2015-0186-EA) to analyze potential impacts associated with leasing the nominated parcels. The [redacted] Tribe is encouraged to provide comments to help the BLM identify relevant issues that will influence the scope of the analysis and guide the development process for the environmental assessment.

Joe Bryant 7.28.15

The project information can be accessed using the BLM ePlanning website: https://www.blm.gov/epl-front-office/eplanning.
Please navigate to the website identified above,

- Choose the "Advanced Search" hyperlink under "Text Search,"
- Type "February 2016 Competitive Oil and Gas Lease Sale" in the "Project Name" field.
- Open the project webpage to see a description of the proposed action.
- Click on "Documents" then select "Preliminary Parcel List" to see the descriptions of the lease parcels.
- Click on "Maps" to see the locations of the lease parcels.

The CCYD will conduct analysis to identify historic properties within the proposed lease parcel boundaries and prepare a cultural resource report that identifies potential adverse effects to historic properties within the proposed lease parcel boundaries. The properties identified will be the result of

data from existing Class I and Class III resource surveys for electrical transmission lines, pipelines, oil and gas development, mining, geophysical survey projects, and livestock grazing permit renewals. The analysis will consist of a spatial distribution of recorded sites as the result of cultural resource projects completed in the proposed lease parcels and a predictive model analysis of site density in the proposed parcels. The BLM will continue consultation with the [redacted] Tribe to resolve potential adverse effects to historic properties.

The draft EA and draft cultural report will be available on September 18, 2015. Comments should be sent before the closing of the public comment period for the draft EA on October 19, 2015. In addition, any requests for consulting party status pursuant to NHPA and its implementing regulations at 36 CFR Part 800 for the February 2016 Lease Sale should be brought to the attention of the BLM Utah State Office Fluid Minerals Section (UT-922) before a final determination is made regarding any such requests.

Other consulting parties who demonstrate interest in the project include the Old Spanish Trail Association and the National Park Service (NPS). The Old Spanish National Historic Trail is jointly administered by NPS and BLM. Other interested parties may participate in the Section 106 review due to the nature of their legal or economic relation to the undertaking or affected properties, or their concern with the undertaking's effects on historic properties.

The proposed undertaking is available for review at the Moab Field Office at the address below.
BLM Moab Field Office
82 East Dogwood Ave.
Moab, Utah 84532

If you have questions or need additional information, please contact Don Montoya at the above address, at e-mail dmontoya@blm.gov, or directly at (435) 259-2149.

Sincerely,

Beth Ransel
Field Manager

AUG 1 1 2015

NA Certified Mail List

2016 Competitive Oil and Gas Lease Sale. The BLM is preparing an Environmental Assessment (EA) (DOI-BLM-UT-Y020-2015-0186-EA)

Title	First Name	Last Name	Company Name	Address Line 1	City	State	Zip	Cert Mail #
Director	Leigh	Kuwanwisiwma	Hopi Tribe	PO Box 123	Kykotsmovi	AZ	86039	7015 0640 0007 1137 3816
Governor	Joshua	Madalena	Jemez Pueblo	P.O. Box 100	Jemez Pueblo	NM	87024	7015 0640 0007 1137 3823
Cultural Specialist	Ora	Marek-Martinez	Navajo Nation	PO Box 4950-	Window Rock	AZ	86515	7015 0640 0007 1137 3847
Chairman	Gary	Lafferty	Paiute Tribe	440 North Paiute Drive	Cedar City	UT	84720	7015 0640 0007 1137 3854
Cultural Resource Director	Dorena	Martineau	Paiute Tribe	440 North Paiute Drive	Cedar City	UT	84720	7015 0640 0007 1137 3878
Chairman	Jimmy R.	Newton	Southern Ute Tribe	PO Box 737	Ignacio	CO	81137	7015 0640 0007 1137 3892
NAGPRA Coordinator	Alden	Naranjo	Southern Ute Tribe	PO Box 737	Ignacio	CO	81137	7015 0640 0007 1137 3908
Chairman	Gordon	Howell	Ute Indian Tribe	PO Box 190	Fort Duchesne	UT	84026	7015 0640 0007 1137 3915
Director	Betsy	Chapoose	Ute Indian Tribe	PO Box 190	Fort Duchesne	UT	84026	7015 0640 0007 1137 3922
Chairman	Manuel	Heart	Ute Mountain Ute Tribe	PO Box JJ	Towaoc	CO	81334	7015 0640 0007 1137 3939
Tribal Historic Preservation Officer	Terry	Knight	Ute Mountain Ute Tribe	PO Box JJ	Towaoc	CO	81334	7015 0640 0007 1137 3946
Council Member	Malcolm	Lehi	White Mesa Ute Tribe	PO Box 7096	Blanding	UT	84511	7015 0640 0007 1137 3953
Director	Kurt	Dongoske	Zuni Pueblo	PO Box 339	Zuni	NM	87327	7015 0640 0007 1137 3960
Governor	Arlen	Quetawki Sr.	Zuni Pueblo	PO Box 339	Zuni	NM	87327	7015 0640 0007 1137 3977
Cultural Resource Officer	Casey	Duma	Laguna Pueblo	P.O. Box 194	Laguna Pueblo	NM	87026	7015 0640 0007 1137 3830
Cultural Preservation Officer	Ben	Chavaria	Santa Clara Pueblo	P.O. Box 580	Espanola	NM	87532	7015 0640 0007 1137 3885