

**United States Department of the Interior  
Bureau of Land Management**

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**Environmental Assessment**

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**DOI-BLM-UT-Y020-2016-0042-EA**

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**February 2017 Oil and Gas Lease Sale**

**September 2016**

**Location:** Canyon Country District

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# February 2017 Oil and Gas Lease Sale DOI-BLM-UT-Y020-2016-0042-EA

## 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 four to six parcels during the February 2017 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 ensures 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 EISs prepared for the current land use plans: Moab Field Office Resource Management Plan (Moab RMP; BLM, 2008a, as maintained) and the Monticello Field Office Resource Management Plan (Monticello RMP, BLM 2008c, as maintained). 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

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.

The BLM mandate is to make mineral resources available for use and to encourage their orderly development to meet national, regional, and local needs. This mandate is based in various laws, including the Mineral Leasing Act of 1920 and the Federal Land Policy and Management Act of 1976. The Federal Onshore Oil and Gas Leasing Reform Act 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), 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 plans 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 BLM Handbook H-3120-1 – Competitive Leases (P). 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 webpage and the BLM national register for NEPA documents<sup>1</sup>. 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 (NCLS) which starts the protest period (30 days). The protest period ends 60 days before the scheduled lease sale. The Utah BLM 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 or internet auction to be held at a to be determined venue, which is tentatively scheduled for February 21, 2017. 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.

This EA has been prepared to disclose and analyze the environmental consequences of leasing six parcels encompassing approximately 6,741 acres within the CCDO. Appendix A contains the February 2017 Oil and Gas Lease Sale Parcel List and the applicable lease stipulations and lease notices for the parcels. Appendix B contains maps of the subject parcels.

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.

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<sup>1</sup> Accessed online at: [https://eplanning.blm.gov/epl-front-office/eplanning/nepa/nepa\\_register.do](https://eplanning.blm.gov/epl-front-office/eplanning/nepa/nepa_register.do)

### **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 Mineral Leasing Act of 1920, the Federal Land Policy and Management Act of 1976, the Federal Onshore Oil and Gas Leasing Reform Act of 1987 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 public.

### **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, and there has been ongoing interest in oil and gas exploration in the CCDO area. Oil and gas leasing is a principal use of the public lands as identified in Section 102(a)(12), 103(1) of the Federal Land Policy and Management Act of 1976 (FLPMA), and it is conducted to meet requirements of the Mineral Leasing Act of 1920, as amended, the Mining and Minerals Policy Act of 1970, and the Federal Onshore Oil and Gas Leasing Reform Act of 1987 (Reform Act). Leases would be issued pursuant to 43 CFR Subpart 3100.

### **1.5 Conformance with BLM Land Use Plans**

The proposed action alternative is in conformance with the MbFO Record of Decision and Resource Management Plan (ROD/RMP) (BLM, 2008a) and the MtFO ROD/RMP (BLM, 2008c) because it is specifically provided for in those planning decisions. The proposed action conforms to the following RMP decisions

#### **1.5.1 Moab RMP Decisions**

##### **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 UDEQ-DAQ 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 gms of NO<sub>x</sub> 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 gms 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 [RMP]Appendix A and [RMP] 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 [RMP] 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 [RMP] 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 CSU and 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 a 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 a NSO stipulation, and 1,539 acres of Federal minerals (split-estate lands) will be closed to oil and gas leasing (see [RMP] Appendix A).

## **1.5.2 Monticello RMP Decisions**

### **MIN-6 (page 80)**

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; and
- improving energy distribution opportunities.

### **MIN-11 (page 81)**

In accordance with an UDEQ-DAQ letter dated June 6, 2008, ([RMP] Appendix C) requesting implementation of interim nitrogen oxide control measures for compressor engines; the BLM will require the following as a Lease Stipulation and a Condition of Approval for Applications for Permit to Drill:

- 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 (gms) of NO<sub>x</sub> per horsepower-hour. This requirement does not apply to oil and gas field engines of less than or equal to 40 design-rated horsepower.
- 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 gms of NO<sub>x</sub> per horsepower-hour.

### **MIN-23 (page 83)**

- Approximately 484,217 acres are administratively available for oil and gas leasing, subject to standard lease terms.

### **MIN-24 (page 83)**

- Timing Limitations: Approximately 594,469 acres are administratively available for oil and gas leasing subject to TL.

### **MIN-25 (page 83)**

- CSU: Approximately 60,741 acres are administratively available for oil and gas leasing subject to CSU.

### **MIN-26 (page 84)**

- CSU and Timing Limitation: Approximately 85,384 acres are administratively available for oil and gas leasing subject to TL and CSU.

### **MIN-27 (page 84)**

- No Surface Occupancy: Approximately 66,108 acres are administratively available for oil and gas leasing subject to no surface occupancy.

The proposed action is consistent with both RMPs and its leasable mineral decisions and their 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 and wildlife, BLM natural areas, lands with wilderness characteristics (WC) and Areas of Critical Environmental Concern (ACECs).

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

## **1.6 Relationship to Statutes, Regulations, or Other Plans**

The proposed action is consistent with federal laws and regulations, Executive Orders, and Department of Interior and the BLM policies; and is in compliance, 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 (FLPMA)
- 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 (NHPA)
- Bald and Golden Eagle Protection Act (1962)
- Endangered Species Act (1973) as amended (ESA)
- BLM Manual 6840- Special Status Species Management
- Migratory Bird Treaty Act (1918) (MBTA)
- Utah Partners in Flight Avian Conservation Strategy Version 2.0 (Parrish et al., 2002)
- Birds of Conservation Concern 2002 (USFWS 2008)
- 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 (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 (U.S. Department of Interior, Bureau of Land Management, September 2007)
- Final Vegetation Treatments on BLM Lands in 17 Western States Programmatic Environmental Report. USDI BLM. FES 0721.
- Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Impact Statement (U.S. Department of Interior, Bureau of Land Management, June 2007)
- San Juan County Master Plan, as revised
- Cane Creek Modeling Report (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)
- BLM Handbook H-3120-1 *Competitive Sales (P)*
- 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 Interdisciplinary (ID) Team Checklists, Appendix C, 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 C.

## **1.7 Identification of Issues**

The proposed action was reviewed by Interdisciplinary Parcel Review Teams (IDPR) 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 Checklists 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 respective RMPs.

These 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 (GIS) data, and field visits to the subject parcels by members of the Moab and Monticello FO IDPR teams.

The MbFO IDPR team conducted field visits of parcels 012 and 021 on June 7, 2016. Present on the field tour were Doug Rowles BLM and UDWR personnel. Documentation of the field visits is available for public review in the Moab Field Office. The MtFO IDPR team conducted field visits of parcels 013, 022, 023, and 024 on June 6 and 7, 2016. BLM and UDWR were present on the June 6, 2016 field visit and several BLM staffers were present on the June 7, 2016 field visit.

The information gathered during the field visits was included in the preparation of the ID Team Checklists for both offices. Internal scoping by the MtFO and MbFO IDPR teams identified the following resources as present with potential for relevant impact requiring detailed analysis in the EA:

- Air Quality
- Greenhouse Gas Emissions/Climate Change
- Special Designations, Old Spanish National Historic Trail (OSNHT)
- 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 and the MtFO 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 IDPR Team Checklists with the determinations and rationales are contained in Appendix C.

On May 11, 2016 the Utah BLM State Office sent notification to the U. S. Forest Service, U. S. Fish and Wildlife Service, National Park Service, State of Utah Public Lands Policy Coordination Office, Utah State Institutional Trust Lands and Utah Division of Wildlife Resources to notify them of the pending lease sale and to solicit their comments and concerns. On June 3, 2016, the MtFO sent a letter to the San Juan County Commission in order to provide notice and solicit comments and concerns regarding the pending lease sale. These agencies are partners in the leasing process. BLM received letters from the Utah Public Lands Policy Coordinating Office and the San Juan County Planning Department. Both letters, while expressing some degree of frustration with the BLM leasing process, support the leasing of Federal oil and gas resources. Refer to Appendix D for comments submitted from stakeholders.

Consultation letters to Native American Tribes were mailed on July 28 and August 9, 2016. The Utah State Historical Preservation Office (SHPO) consultation letter sent out July 28, 2016 with statement “Upon future analysis ..., the BLM, will, make a future determination of effect for the February 2017 Oil and Gas Lease Sale.” Old Spanish National Historical Trail (OSNHT) consultation letters were sent on July 28, 2016 to Old Spanish Trail Association, BLM - Rob Sweeten Old Spanish National Historic Trail Administrator, and Jill Jensen, Trails Administrator National Park Service.

Public notification was initiated by entering the project information on the BLM national register for NEPA documents, a BLM environmental information internet site, on May 18, 2016. Additional information for the public is maintained on the Utah BLM Oil and Gas Leasing Webpage<sup>2</sup>.

The BLM also submitted press releases on July 26, 2016 to Monticello’s *San Juan Record* newspaper, Moab’s *The Times-Independent* newspaper, to notify the public of a 30-day scoping period for the proposed action. The public scoping period ended on August 29, 2016.

As a result of this coordination and scoping to solicit issues and concerns, the following comments were received:

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<sup>2</sup> Accessed online at: [http://blm.gov/ut/st/en/prog/energy/oil\\_gas\\_lease.html](http://blm.gov/ut/st/en/prog/energy/oil_gas_lease.html)

1. Utah Public Lands Policy Coordination Office responded with letter dated August 10 in support of Federal oil and gas leasing while expressing frustration with “delays and ubiquitous parcel deferments which have plagued recent BLM lease sales.”
2. San Juan County Planning Department responded with a letter dated July 18 in support of Federal oil and gas leasing while expressing frustration with “the large number of parcels that have been deferred from leasing. In the current proposed sale 31 parcels were nominated and 25 were deferred.”
3. Hopi requested copies of the EA and Cultural Report be provided to them for review and comment.
4. Laguna Pueblo requested copy of the EA for review.
5. National Park Service, National Trails Intermountain Region responded September 6, 2016 stating “Given the range of future actions that may be associated with the proposed sales there is a high probability the action would ultimately result in an adverse effect to this resource under the National Historic Preservation Act and the National Trails System Act. ... there is a high probability the action would ultimately result in an adverse effect.”
6. One individual scoping comment: “I urge the BLM to not allow any drilling for oil or gas on public land. Instead, I urge the BLM to make available public land for the generation of clean, safe renewable energy such as solar and wind power.”

The National Park Service and BLM identified Special Designations, Old Spanish National Historic Trail (OSNHT) as a resource issue to be addressed in this EA. As a result of this issue identification, an alternative has been developed and analyzed to mitigate potential impacts from the proposed action to the OSNHT resource. Other comments expressed a preference for or against oil and gas leasing, or requested additional information.

## **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. Chapter 3 presents the potentially affected existing environment. 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 environmental assessment focuses on the proposed action and No Action alternatives. 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 – Offer All Six Parcels for Leasing

This alternative would be to offer all six (6) lease parcels (approximately 6,741 acres) included on the preliminary list of parcels proposed for inclusion in the February 2017 Competitive Oil and Gas Lease Sale.

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

The following Tables 2-1 depict the acreage to be offered and the acreage recommended for deferral at the February 2017 lease sale.

**Tables 2-1: Parcel Acreage Offered and Deferred**

#### Canyon Country District Summary

Office	Total Parcel Acreage	Acreage Offered	Acreage Deferred
Moab FO	3,347.04	3,347.04	0
Monticello FO	3,393.84	3,393.84	0
<b>Canyon Country District Total</b>	<b>6 parcels for 6,740.88 acres</b>	<b>6,740.88</b>	<b>0</b>

#### Moab Field Office Detail

Parcel #	Total Acreage	Acreage Offered	Acreage Deferred	Deferral Reason
12	1,436.34	1,436.34		
21	1,910.70	1,910.70		
<b>Totals</b>	<b>2 parcels for 3,347.04 acres</b>	<b>3,393.84</b>		

**Monticello Field Office Detail**

<b>Parcel #</b>	<b>Total Acreage</b>	<b>Acreage Offered</b>	<b>Acreage Deferred</b>	<b>Deferral Reason</b>
013	40.00	40.00		
022	1,618.12	1,618.12		
023	655.72	655.72		
024	1,080.00	1,080.00		
<b>Totals</b>	<b>4 parcels for 3,393.84 acres</b>	3,393.84		

The parcels would be offered with stipulations as specified in the MtFO RMP (BLM 2008c) and the MbFO RMP (BLM, 2008a), and lease notices as appropriate. Legal descriptions of each parcel, along with attached stipulations and lease notices can be found in Appendix A and maps of the 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.

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 Monticello planning area “Reasonably Foreseeable Development Scenario (RFD) for Oil and Gas” (Vanden Berg, 2005) prepared in 2005, and the Moab planning RFD (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 2017 oil and gas lease parcels was compared to existing authorized oil and gas lease acreage in order to estimate the percentage attributable to the February 2017 lease parcels. The following Table 2-2 compares and summarizes the authorized lease acreage in the CCDO and the proposed February 2017 lease sale acreage.

**Table 2-2: Authorized Leases/2017 Lease Sale Comparison**

	2017 lease sale acres	Authorized Lease Acreage	Sum - 2017 lease sale and authorized lease acreage	Percent attributed to 2017 lease sale.
<b>Monticello FO</b>	3,347	214,150	217,497	2%
<b>Moab FO</b>	3,394	618,358	621,752	1%
<b>CCDO Total</b>	6,741	832,508	839,249	1%

**Monticello Field Office Area**

The MtFO RFD was prepared for the Monticello 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 MtFO PRMP. The RFD included:

- Assumptions:
  - BLM lands in the RFD include BLM surface and split estate (private, Navajo Indian) 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, therefore;
  - 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.
- BLM lands available for oil and gas leasing and development are 38% of the total acreage available to oil and gas leasing and development in the RFD area.
- Over the next 15 years, 195 wells would be drilled on all lands within the Monticello planning area;
- Thirty eight percent of 195 wells would be 74 wells drilled on BLM lands over the next 15 years.
- Each well and associated roads and pipelines would result in approximately 9.6 acres of surface disturbance (four acres for well pad construction; six acres for roads, pipelines, other facilities).
- Over the next 15 years, new oil and gas exploration and development activities on BLM lands would cause surface disturbance of 710 acres (74 wells × 9.6 acres = 710 acres).
- Annual surface disturbance = 47 acres (710 acres ÷ 15 years = 47 acres per year).

Currently in the MtFO:

- There are approximately 214,150 acres under authorized federal oil and gas lease at the present time (2016.06.29).

- The Monticello Field Office Feb. 2017 lease parcels total approximately 3,394 acres.
- If all offered parcels were sold and leases issued, the Feb. 2017 leases would amount to 2% of the authorized oil and gas leases in the MtFO ( $214,150 + 3,394 = 217,544$ ;  $3,394 \div 217,544 \approx 2\%$ ).
- RFD predicted surface disturbance = 47 acres  $\times$  2%  $\approx$  1 acre per year of surface disturbance resulting from the Feb. 2017 lease sale.
- 74 RFD predicted wells  $\div$  15 years = 5 wells per year  $\times$  2%  $\approx$  0.1 well per year resulting from the Feb. 2017 lease sale.
- Surface disturbance resulting from Feb. 2017 lease sale oil and gas exploration and development would occur over a 10 year period (period of a lease not held by production).
- Surface disturbance resulting from the Feb. 2014 lease sale would be: 1 acre per year  $\times$  10 years = 10 acres to surface disturbance total.

### **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 included:

- 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, therefore;
  - 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.
- BLM lands available for oil and gas leasing and development are 68% 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.
- 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 (five acres for well pad construction; 10 acres for roads, pipelines, other facilities).

- 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 618,360 acres under authorized oil and gas lease at the present time (2016.06.29).
- The Moab Field Office Feb. 2017 lease parcels total approximately 3,350 acres.
- If all offered parcels were sold and leases issued the Feb. 2017 leases would amount to 1% of the authorized oil and gas leases in the MbFO (618,360+3,350 = 621,710; 3,350÷621,710 ≈ 1%).
- RFD predicted surface disturbance = 408 acres X 1% ≈ 4 acres per year of surface disturbance resulting from the Feb. 2017 lease sale.
- 408 RFD predicted wells ÷ 15 years = 27 wells per year × 1 % ≈ 0.27 well per year resulting from the Feb. 2017 lease sale.
- Surface disturbance resulting from Feb. 2017 lease sale oil and gas exploration and development would occur over a 10 year period (period of a lease not held by production).
- Surface disturbance resulting from the Feb. 2017 lease sale would be: 4 acres per year × 10 years = 40 acres of surface disturbance total.

### **Canyon Country District Summary**

Table 2-3 summarizes the predicted well development and surface disturbance resulting from the February 2017 Oil and Gas Lease Sale.

**Table 2-3: CCDO Predicted Oil and Gas Exploration and Development; and Surface Disturbance**

Area	Predicted Wells Per Year	Total Predicted Wells (10 years)	Predicted Annual Surface Disturbance	Total Surface Disturbance (10 years)
Moab Field Office	0.27	2.7	4 acres/year for 10 years	40 acres
Monticello Field Office	0.1	1	1 acres/year for 10 years	10 acres
Canyon Country District Total	0.37	4	5 acres/year for 10 years	50 acres

The 50 acres of surface disturbance estimated to result from exploration, development and production activities resulting from the proposed lease sale amounts to 0.74% of the acreage included in the lease sale (50 acres of surface disturbance ÷ 6,741 acres in lease sale = 0.74%).

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 RMPs and would be applied to all potential leases regardless of their category. Also included in all leases are the two mandatory stipulations for the statutory protection of cultural resources (Cultural Resources and Tribal Consultation for Fluid Minerals Leasing) and threatened or endangered species (Endangered Species Act Section 7 Consultation) (H-3120-1 at 35).

BLM would 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 operation 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.

### **2.2.1 Well Pad and Road Construction**

Equipment for road and well pad construction would include dozers, scrapers, and graders. An appropriate amount of topsoil 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 development would be utilized year-round for maintenance of the proposed wells and other facilities, for the transportation of produced fluids and/or equipment, and 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 generally are constructed to the resource road standard requiring a 14 foot driving width, a 35 foot to 45 foot construction disturbance width, properly drained and appropriately surfaced.

### **2.2.2 Well Drilling and Completion Operations**

Drilling would be accomplished by using a conventional rotary drilling rig or a work-over rig. A drilling plan is included in every APD and is subject to review by a BLM engineer for compliance with Onshore Oil and Gas Order No. 2. Onshore Oil and Gas Order No. 2 includes well casing, cementing and testing requirements to insure the integrity of the well bore. After review, the engineer may determine that additional COAs are required to supplement the drilling plan. Approximately 20 truckloads would be required to transport drilling equipment and materials to the well pad. Additionally, 6 to 10 smaller vehicles would be used to transport drilling personnel and other support services. Drilling operations would continue 24 hours a day.

To isolate and protect useable ground water aquifers and other subsurface mineral resources from contamination by well drilling fluids, well completion fluids and produced water, oil and gas during drilling, completion and production operations, surface casing would be set to an appropriate depth below all useable ground water aquifers in accordance with the requirements of Onshore Oil and Gas Order No. 2. The surface casing would then be cemented to the surface. All drilling plans are subject to review by BLM engineers and approval by the authorized officer.

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. Typically, a reserve pit would be constructed on the location to contain drill cuttings and produced fluids. Alternately, an operator could propose a closed loop drilling mud system as a best management practice to eliminate the need for a reserve pit. Drill cuttings would be contained on location during drilling operations, depending on an analysis of the contents, disposed of on location as part of the interim reclamation program, or would be adequately solidified for transport 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.

### **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 would

consist of a well head, storage tanks with truck load-out for oil and produced water, a separator, and dehydrator facilities.

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 (OSHA) 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 (ROW) 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 will be reduced to the minimum area necessary to safely conduct production operations. All other areas will be subject to interim reclamation including re-contouring, spreading of top soil, seedbed preparation, and seeding a seed mix appropriate to the site.
2. Access roads would be reclaimed back to the driving surface.
3. Trees cleared during site preparation and large rocks excavated during construction will 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 or well completion or abandonment.
2. All weather surfacing material will be removed.
3. As appropriate, top soil will be salvaged and reserved for final reclamation.
4. Re-contouring, spreading of salvaged top soil, seed bed preparation, seeding, and scattering trees (woody debris) will 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, 4<sup>th</sup> Edition, pg.43).

### **2.3 Alternative B – Offer Four Parcels for Lease; Defer Two Parcels**

Under this alternative, two of the six parcels originally included on the preliminary list of parcels proposed for inclusion in the February 2017 Competitive Oil and Gas Lease Sale would be deferred. The reasons for deferral are:

- High potential segments of the OSNHT pass directly through both parcel 021 and 023. In addition, parcel 021 is located within the view-shed of and within ½ mile from Casa Colorado Rock, a historical landmark along the OSNHT. Any oil and gas exploration and development activity within these parcels could adversely affect the historical integrity of the trail.

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

The following Tables 2-1 depict the acreage to be offered and the acreage recommended for deferral at the February 2017 lease sale.

**Tables 2-1: Parcel Acreage Offered and Deferred**

**Canyon Country District Summary**

Office	Total Parcel Acreage	Acreage Offered	Acreage Deferred
Moab FO	3,347.04	1,436.34	1,910.70
Monticello FO	3,393.84	2,738.12	655.72
<b>Canyon Country District Total</b>	<b>6 parcels for 6,740.88 acres</b>	<b>4,174.46</b>	<b>2,566.42</b>

**Moab Field Office Detail**

Parcel #	Total Acreage	Acreage Offered	Acreage Deferred	Deferral Reason
12	1,436.34	1,436.34		
21	1,910.70		1,910.70	OSNHT
<b>Totals</b>	<b>2 parcels for 3,347.04 acres</b>	<b>1,436.34</b>	<b>1,910.70</b>	

**Monticello Field Office Detail**

Parcel #	Total Acreage	Acreage Offered	Acreage Deferred	Deferral Reason
013	40.00	40.00		
022	1,618.12	1,618.12		
023	655.72		655.72	OSNHT
024	1,080.00	1,080.00		
<b>Totals</b>	<b>4 parcels for 3,393.84 acres</b>	<b>2,738.12</b>	<b>655.72</b>	

The amount of oil and gas exploration and development predicted in Alternative A (Table 2-3) would essentially be the same for Alternative B. Because the acreage in the February 2017 lease sale is limited and the percentages as compared to authorized leased acreage are small and rounded, the predicted oil and gas exploration and development, and surface disturbance would be the same. Tables 2-2 and 2-3 apply to both Alternatives A and B. The only difference between Alternatives A and B is the amount of acreage recommended to be offered at lease sale and the amount of acreage recommended for deferral. The description of well pad and road construction, drilling and completion, production, and reclamation operations is the same for Alternatives A and B.

**2.4 Alternative C – 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 2017 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 Interdisciplinary Team Checklist found in Appendix C 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.

Parcel 012 is located within the MbFO approximately four miles north-northeast of La Sal Junction (junction of U.S. Highway 191 and State Highway 46) adjacent to Manti – La Sal National Forest Lands on the southwestern slope of the La Sal Mountains. Elevation varies from 6,200 feet to 7,000 feet. Topography consists of mesas and canyons. Vegetation is primarily pinon and juniper woodland in the canyons and chained pinon and juniper on the mesas.

Parcel 013 is located within the MtFO approximately 19 miles north- of the town of Monticello near the junction of US Highway 191 and San Juan County Road 113. The topography of the parcel is nearly flat at 6,000 feet of elevation. Vegetation consists of semidesert grass and shrub.

Parcel 021 is located within the MbFO approximately nine miles south-southwest of the town of La Sal in the Dry Valley area near the confluence of Hatch and Big Indian Washes. Elevation ranges from 5,800 feet to 6,400 feet. Topography is generally flat to gently sloping upland terrain and nearly flat alluvial terrain along Big Indian Wash. Vegetation consists of semidesert grass and shrub on uplands and black greasewood on the Big Indian Wash alluvium.

Parcel 022 is located within the MtFO approximately 17 miles north of the town of Monticello on the northeast and southwest slopes, and the top of Deerneck Mesa. Elevation ranges from 5,940 feet to 7,200 feet. Topography is gently sloping to flat upland terrain on the top of Deerneck Mesa. The slopes of Deerneck Mesa vary from near vertical cliffs to moderate slopes. Vegetation consists of pinon and juniper woodland and a small amount of sagebrush-grass.

Parcel 023 is located within the MtFO approximately 16 miles north-northeast of the town of Monticello in the Dry Valley area at the base of the west slope of Deerneck Mesa. Elevation ranges from 5,880 feet to 6,020 feet. Topography is gently sloping to flat upland terrain, nearly flat alluvial terrain along a Hatch Wash tributary, and steep to near vertical cliffs. Vegetation consists of pinon and juniper woodland and semidesert grass and shrub on uplands; and black greasewood on the wash alluvium.

Parcel 024 is located within the MtFO approximately 16 miles north of the town of Monticello on the south slope of Deerneck Mesa and the north bench of East Canyon Wash. Elevation ranges from 5,920 feet to 6,800 feet. Topography is gently sloping upland terrain on the East Canyon bench. The south slopes of Deerneck Mesa vary from near vertical cliffs to moderate slopes. Vegetation consists of pinon and juniper woodland

on the Deerneck Mesa slopes, and semidesert shrub-grass on the East Canyon bench.

### 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/ Secondary	Averaging Time	Level	Form	
Carbon Monoxide (CO)	primary	8 hours	9 ppm	Not to be exceeded more than once per year	
		1 hour	35 ppm		
Lead (Pb)	primary and secondary	Rolling 3 month average	0.15 µg/m <sup>3</sup> <sup>(1)</sup>	Not to be exceeded	
Nitrogen Dioxide (NO <sub>2</sub> )	primary	1 hour	100 ppb	98th percentile of 1-hour daily maximum concentrations, averaged over 3 years	
	primary and secondary	1 year	53 ppb <sup>(2)</sup>	Annual Mean	
Ozone (O <sub>3</sub> )	primary and secondary	8 hours	0.070 ppm <sup>(3)</sup>	Annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years	
Particle Pollution (PM)	PM <sub>2.5</sub>	primary	1 year	12.0 µg/m <sup>3</sup>	annual mean, averaged over 3 years
		secondary	1 year	15.0 µg/m <sup>3</sup>	annual mean, averaged over 3 years
	PM <sub>10</sub>	primary and secondary	24 hours	35 µg/m <sup>3</sup>	98th percentile, averaged over 3 years
		primary and secondary	24 hours	150 µg/m <sup>3</sup>	Not to be exceeded more than once per year on average over 3 years
Sulfur Dioxide (SO <sub>2</sub> )	primary	1 hour	75 ppb <sup>(4)</sup>	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years	
	secondary	3 hours	0.5 ppm	Not to be exceeded more than once per year	

Table 3-1 Notes:

- (1) In areas designated nonattainment for the Pb standards prior to the promulgation of the current (2008) standards, and for which implementation plans to attain or maintain the current (2008) standards have not been submitted and approved, the previous standards (1.5 µg/m<sup>3</sup> as a calendar quarter average) also remain in effect.
- (2) The level of the annual NO<sub>2</sub> standard is 0.053 ppm. It is shown here in terms of ppb for the purposes of clearer comparison to the 1-hour standard level.
- (3) Final rule signed October 1, 2015, and effective December 28, 2015. The previous (2008) O<sub>3</sub> standards additionally remain in effect in some areas. Revocation of the previous (2008) O<sub>3</sub> standards and transitioning to the current (2015) standards will be addressed in the implementation rule for the current standards.
- (4) The previous SO<sub>2</sub> standards (0.14 ppm 24-hour and 0.03 ppm annual) will additionally remain in effect in certain areas:
  - (1) any area for which it is not yet 1 year since the effective date of designation under the current (2010) standards, and
  - (2) any area for which implementation plans providing for attainment of the current (2010) standard have not been submitted and approved and which is designated nonattainment under the previous SO<sub>2</sub> standards or is not meeting the requirements of a SIP call under the previous SO<sub>2</sub> standards (40 CFR 50.4(3)). A SIP call is an EPA action requiring a state to resubmit all or part of its State Implementation Plan to demonstrate attainment of the require NAAQS.

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

Canyonlands National Park (NP) is the nearest Class I area with the potential to be affected by the proposed action. The closest parcels are located approximately 15 to 20 miles east of the Park. AQRV in Canyonlands NP are statistically acceptable and good for most monitored pollutants. Canyonlands NP 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 NP 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**

National Park or National Recreation Area	Visibility	Visibility	Nitrogen Deposition	Nitrogen Deposition	Sulfur Deposition	Sulfur Deposition	Ozone	Ozone
	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 (Figure. 1) demonstrates that the area encompassing the February 2017 lease sale is approaching the current 8-hr NAAQS of 75 ppb for ozone. Figure 1 shows ozone trends at the Canyonlands monitoring site expressed in terms of the 4<sup>th</sup> maximum 8-hr 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*)<sup>3</sup>, 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.

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<sup>3</sup> A complete list of ozone sensitive species by park is available at <http://www.nature.nps.gov/air/permits/aris/networks/ozonerisk.cfm>.

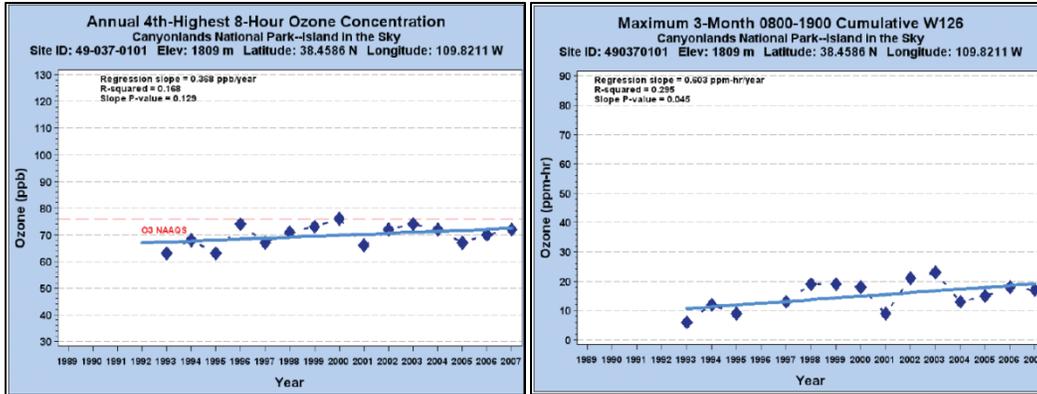


Figure 1. Trends in the annual 4<sup>th</sup> highest 8-hr ozone concentration (current primary standard, top panel) and the cumulative W126 ozone metric measured at Canyonlands National Park, Island in the Sky. Data excerpted from Perkins 2010.

The UDAQ issued the Division of Air Quality 2015 Annual Report (UDAQ 2015) 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 County is 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 2015 annual report also includes an emissions inventory (conducted in 2011-updated) by county which includes pollutants released by all emissions sources in the state. Table 3-2 shows the emissions inventory for San Juan County in tons per year (tpy).

**Table 3-2: Emissions Inventory (2011)**

Pollutant	San Juan County
PM <sub>10</sub>	6,673
PM <sub>2.5</sub>	952
SO <sub>x</sub>	53
NO <sub>x</sub>	3,052
VOC	85,753
CO	36,431

Although not listed as a NAAQS criteria pollutant, volatile organic compounds (VOC) are also considered in this EA as they, along with NO<sub>x</sub>, 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.

On June 5, 2014 UDAQ issued General Approval Order (GAO) for a Crude Oil and Natural Gas Well Site and/or Tank Battery (DAQE-ANI49250001-14; available at: <http://www.deq.utah.gov/Permits/GAOs/gaos.htm> ). An oil and gas applicant may apply for and, if qualified, receive approval to operate under this GAO. The GAO has many requirements, including Best Available Control Technology that reduce emissions and mitigate impacts to air quality. A dispersion modeling analysis was conducted for NO<sub>2</sub>. 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.

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<sub>10</sub>), from heavy construction operations. PM<sub>10</sub> emissions are converted from total suspended particulates by applying a conversion factor of 25%. PM<sub>2.5</sub> is not specifically addressed as it is included as a component of PM<sub>10</sub>. 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 Greenhouse Gas Emissions/Climate Change**

According to National Oceanic and Atmospheric Administration (NOAA) and National Aeronautic and Space Administration (NASA) data, Earth's average surface temperature has increased by approximately 1.2 to 1.4 °F in the last 100 years. The 8 warmest years on record (since 1850) have all occurred since 1998, with the warmest year being 2005. Most of the warming in recent decades is very likely the result of human activities. The past 18 years have had negligible increase in maximum temperature even though they have been some of the hottest in the continental US. Equilibrium climate sensitivity quantifies the response of the climate system to constant radiative forcing on multicentury time scales. It is defined as the change in global mean surface temperature at equilibrium that is caused by a doubling of the atmospheric CO<sub>2</sub> concentration. Equilibrium climate sensitivity is likely in the range 1.5°C to 4.5°C (high confidence), extremely unlikely less than 1°C (high confidence), and very unlikely greater than 6°C (medium confidence). The lower temperature limit of the assessed likely range is thus less than the 2°C in the AR4, but the upper limit is the same. This assessment reflects improved understanding, the extended temperature record in the atmosphere and ocean, and new estimates of radiative forcing. No best estimate for equilibrium climate sensitivity can now be given because of a lack of agreement on values across assessed lines of evidence and studies (IPCC, 2013).

### **3.3.3 Special Designations, OSNHT**

The Old Spanish National Historic Trail (OSNHT) features multiple routes and sub-routes in southeastern Utah. The Main Branch of the OSNHT runs in a roughly southeast-northwest direction through San Juan and Grand Counties.

The Old Spanish National Historic Trail - Final Comprehensive Administrative Strategy (CAS) has been developed to meet general preservation, protection, and public access goals of the National Trails System Act. In accordance with the National Trails System Act (NTSA), the Bureau of Land Management and the National Park Service (NPS) have identified and manage high potential sites and segments of the OSNHT. High potential sites and segments of the OSNHT have been identified along the Main Branch within East Canyon and Hatch Wash area of southeastern Utah. Historic landmarks such as Casa Colorado Rock lie within the view shed of the OSNHT.

Several sections of trail trace and inferred segments are identified as portions of the main route of the OSNHT within San Juan County. The CAS identifies several high potential sections of trail trace that cross parcels 021, 023, and 024. Lease parcels 012, 013 and 022 lack high potential segments. There are no artifacts or features associated with the segment in any of the parcels. A site form update was completed in 2012 and was determined eligible with SHPO concurrence at that time.

In 2011, the BLM conducted a Historic Setting Integrity Assessment of the OSNHT in the area of the parcels. During this assessment several Inventory Observation Points (IOPs) were established. The assessment, as related to the proposed action area, included the following findings:

The area studied for this proposed lease sale spans just over 13 miles, from the southern end of South Canyon to where Hatch Wash crosses Route 191. Of this length, about 10 miles are on BLM land and the remainder fall within private and state-owned lands. The verified trail trace segments IOPs fall to the east and south of the Analysis Unit line.

The trail trace today is typified by faint two-tracks and swales, and in some places, the trail trace is not evident. At none of the IOPs had the trail trace been paved over or turned into a modern-use road.

IOP EC-1 is located on lease parcel 021, just south of the Casa Colorado rock formation. It is positioned on a single-track swale paralleled by a minimally used two-track swale. The predominant features in the setting are Casa Colorado to the north, a transmission line to the east, and the long views to distant mountains to the south and southwest. IOP EC-3 is about three miles west of IOP EC-1 just west of parcel 021 and is located in a grazing allotment off of Route 191. The trail trace is not evident at this location, but the setting is largely unchanged by modern intrusions. The La Sal Mountains can be seen to the north, beyond a low mesa. IOP EC-5 is located about one mile south of IOP EC-1, just off of parcel 021 along a post and wire fence that extends north from Big Indian Road. Casa Colorado and the La Sal Mountains can be seen to the north; several transmission lines and a small related structure are visible to the southwest. The trail trace at EC-5 is evident as a swale flanked by scattered historic metal cans that post-date the period of the Old Spanish Trail. IOP EC-7 is located about 6 miles east of Route 191 along the dramatically scalloped base of Deerneck Mesa. From this location, modern intrusions are few and distant. This IOP is at the base of a tall C-shaped alcove close to a set of historic carved toe-holds which lead up to a dinosaur excavation site. IOP EC-8 is two miles northwest of EC-7, accessed by a network of bladed and two-track roads. A trail trace is not evident but the route is believed to run perpendicular to the two-track as well as two buried gas pipelines that cannot be seen from the IOP. A transmission line corridor is visible to the southwest.

The vegetation at IOPs EC-1 to EC-7 is a high desert community, including low arid shrubs and grasses including some cheatgrass.

IOPs EC-11, EC-12, and EC-13 are located in South Canyon, which branch off to the southwest from East Canyon. South Canyon is narrow with no modern intrusions except at IOP EC-13, at the south end of the canyon, where it opens up onto the flat plains. At that location, the only visible non-historic features are a post and wire fence and a distant radio tower.

The vegetation in South Canyon is typified by piñon pines, juniper, sagebrush, tamarisk, willow, and grasses.

The project area's historic setting retains integrity.

### **3.3.4 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 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 United States Fish and Wildlife Service (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 2012) were used to identify potential habitat for priority species that could utilize habitats within the CCDO. Table 3-3 lists the UPIF Priority Species list and the FWS BCC species that are a

concern within the CCDO. These species could occur anywhere within the District at any given time.

**Table 3-3: CCDO UPIF & FWS BCC Species 2008 (Region 16)**

Species	BCC	UPIF	DWR Habitats	1st Breeding Habitat	2nd Breeding Habitat	Winter Habitat
<i>Bald Eagle</i>	X		Winter	Lowland Riparian	Agriculture	Lowland Riparian
Band-tailed Pigeon			High/ Substantial	Ponderosa pine	Mixed conifer	Migrant
Black Rosy-finch	X	X	Substantial/ Critical	Alpine	Alpine	Grassland
Black-throated Gray Warbler		X	Prime Breeding	Pinyon-Juniper	Mountain Shrub	Migrant
<i>Bobolink</i>		X	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
<i>Burrowing Owl</i>	X		Primary Breeding	High Desert Shrub	Grassland	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
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
Virginia's Warbler		X	Prime Breeding/Winter	Oak	Pinyon-Juniper	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 3-4 with a description of their nesting and foraging habitats.

**Table 3-4: Raptor Species with the Potential to Occur CCDO and USFWS Spatial and Seasonal Buffers**

Common Name	Scientific Name	General Habitat and Potential to Occur in the Canyon County District	Spatial Buffer (miles)	Seasonal Buffer
Sharp-shinned Hawk	<i>Accipiter striatus</i>	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	<i>Accipiter cooperii</i>	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	<i>Aquila chrysaetos</i>	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	<i>Haliaeetus leucocephalus</i>	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 long the river corridors. No potential for nesting in lease parcels.	0.5	1/1-8/31
Burrowing Owl	<i>Athene cucularia</i>	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	<i>Asio otus</i>	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	<i>Bubo virginianus</i>	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
Red-tailed Hawk	<i>Buteo jamaicensis</i>	Occurs throughout the district in a variety of habitats including deserts, grasslands, <a href="#">coniferous</a> and <a href="#">deciduous</a> 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.	0.5	3/15-8/15
Swainson’s Hawk	<i>Buteo swainsoni</i>	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	<i>Circus cyaneus</i>	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
Prairie Falcon	<i>Falco mexicanus</i>	High potential to nest on cliffs and ledges. Moderate potential to forage in desert shrub, moderate in	0.25	4/1-8/31

Common Name	Scientific Name	General Habitat and Potential to Occur in the Canyon County District	Spatial Buffer (miles)	Seasonal Buffer
		pinyon-juniper woodland.		
American Kestrel	<i>Falco sparverius</i>	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

## **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 – Offer All Six Parcels for Leasing**

##### **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. 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 <sup>1</sup> Tons per Year (tpy)	Emission Levels for Hazardous Air Pollutants (Pounds per Year <sup>2</sup> )
Small Source Exemption -Registration <sup>3</sup>	Less Than 5 tpy	Less Than 500 for one or 2000 for a combination
Approval Order <sup>4</sup>	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 SO<sub>x</sub>, NO<sub>x</sub>, PM<sub>10</sub>, Volatile Organic Compounds (VOCs), CO, Ozone.

2 - There are 188 Hazardous Air Pollutants, HAPs

3 - The following locations need to submit a small source exemption registration: Ogden City, Davis County, Salt Lake County, Utah County, and East Toole County. All other locations do not need to submit an exemption.

4 - An approval order or operating permit is required throughout the state if your 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. Registration of a small source exemption is not required in San Juan or Grand Counties.

On June 5, 2014 UDAQ issued General Approval Order (GAO) for a Crude Oil and Natural Gas Well Site and/or Tank Battery (DAQE-ANI49250001-14; available at: <http://www.deq.utah.gov/Permits/GAOs/gaos.htm> ). An oil and gas applicant may apply for and, if qualified, receive approval to operate under this GAO. The GAO has many requirements, including Best Available Control Technology that reduce emissions and mitigate impacts to air quality. A dispersion modeling analysis was conducted for NO<sub>2</sub>. 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.

The UDAQ Modeling Guidelines, Revised December 17, 2008 (Utah. 2008) may require dispersion modeling if SO<sub>2</sub> or NO<sub>x</sub> is greater than 40 tpy, PM<sub>10</sub> is greater than 5 tpy, CO is greater than 100 tpy, or lead is greater than 0.6 tpy.

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<sub>x</sub>, SO<sub>2</sub>, 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<sub>x</sub> and CO emissions, with lesser amounts of SO<sub>2</sub>. 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<sub>x</sub>, 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<sub>10</sub> and PM<sub>2.5</sub>) 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 ton per year.

Lease stipulation UT-S-01 Air Quality, which regulates the amounts of NO<sub>x</sub> 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.

For this analysis an emissions inventory (EI) for the February 2017 Oil and Gas Lease Sale is estimated based on a MtFO “typical well” and the production emission estimated by UDAQ for the oil and gas GAO. This “typical well” is based on the following analysis assumptions contained in the MtFO PRMP (BLM 2008d: 4-10 to 4-15), the MtFO RFD (Vanden Berg 2005) and previous oil and gas development in the MtFO.

- Each oil and gas well would cause 9.6 acres of surface disturbance. This acreage is divided into 5.5 acres for road and pipeline construction and 4.1 acres for well pad construction.
- Construction activity for each well is assumed to be 10 days. It is further assumed that, based on the acreage disturbed, 4.5 days would be spent in well pad construction and 5.5 days would be spent in road and pipeline construction.
- Control efficiency of 25% for dust suppression would be achieved as a result of compliance with Utah Air Quality regulation R307-205.
- Post construction particulate matter (dust) emissions are likely to occur on a short term basis due to loss of vegetation within the construction areas. Assuming appropriate interim reclamation, these emissions are likely to be minimal to negligible and will not be considered in this EA.
- Drilling operations would require 14 days.
- Completions and testing operations would require 3 days.
- Well pad, road, and pipeline construction activity emissions (PM<sub>10</sub>) will be considered. Off road mobile exhaust emissions from drilling activities will be considered.
- Off road mobile exhaust emissions from heavy equipment and on road mobile emissions will not be considered as they are dispersed, sporadic, temporary, and not likely to cause or contribute to exceedance of the NAAQS.

The estimated EI for a typical well includes particulate matter of less than 10 micrometers in diameter (PM<sub>10</sub>), nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), and volatile organic compounds (VOC). Emissions of sulfur dioxide (SO<sub>2</sub>) and lead (Pb) from oil and gas development activities are minor and are not included. PM<sub>2.5</sub> is not specifically included as it is a component of PM<sub>10</sub>.

Emission factors for activities of the proposed action were based on information contained in the EPA’s Emission Factors & AP 42, Volume I, Fifth Edition (EPA.1995), available at: <http://www.epa.gov/ttn/chief/ap42/index.html>.

Production emissions calculations were prepared by UDAQ for the GAO for production operations (based on 50,000 bbl oil/year and 2 mmcf gas/day production). The GAO has many requirements, including Best Available Control Technology that reduce emissions and mitigate impacts to air quality. In Table 4-2 the first column show estimated emissions without the controls. The second column shows the estimated emissions with controls required by the GAO.

**Table 4-2: GAO Estimated Emissions (tpy)**

	Uncontrolled Emissions	Controlled Emissions
VOC	138.98	13.55
NOx	16.93	8.45
CO	9.70	12.94
HAP	34.30	2.55
PM10	0.52	0.52
SO2	0.03	0.03

Table 4-3 contains a summary of the estimated EI for the proposed action. The MtFO RFD (p.15) predicted that 59% of wells drilled would be productive and the remainder would be dry holes. Ongoing annual production emissions are based on this percentage.

**Table 4-3: Emissions inventory summary.**

	Construction Emissions (Tons)	Drilling Emissions (Tons)			Completions Emissions (Tons)				UDAQ GAO Ongoing Production Emissions (controlled) (Tons/year)			
	PM10	NOX	CO	VOC	VOC	NOx	CO	PM10	NOX	CO	VOC	PM10
Typical Well	0.34	13.31	1.83	0.23	0.85	0.07	0.07	0.00	8.45	12.94	13.55	0.52

	PM10	NOx	CO	VOC	
<b>Activity Emissions</b> (Total emissions for construction, drilling and completion a well)	0.34	13.38	1.90	1.08	<b>Tons</b>
<b>Production Emissions</b> (Ongoing annual emissions per well well)	0.52	8.45	12.94	13.55	<b>tpy</b>
<b>Activity Emissions × 4 wells</b> (10 year period)	1.36	53.52	7.6	4.32	<b>Tons</b>
<b>Per year activity emissions (next 10 years)</b>	0.14	5.35	0.76	0.43	<b>Tons</b>
<b>Annual ongoing production emissions</b> (59% productive ≈ 2 wells)	1.04	16.90	25.88	27.10	<b>tpy</b>

A project specific modeling analysis was also conducted in 2010 for a project with similar likely development characteristics as would be expected from these lease sales (Cane Creek Modeling Report, (Golder, 2010)). This modeling analysis analyzed the expected impacts from a 17 well project to NO<sub>2</sub> and PM<sub>10</sub> 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, and can be considered conservative for purposes of this analysis. No adverse impacts to Class I related AQRVs were predicted through this modeling analysis.

Based on the EI for a typical oil and gas well, the Cane Creek modeling analysis tiered to for this EA, the air quality analysis in the MtFO and MbFO PRMPs, 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 Greenhouse Gas Emissions/Climate Change**

##### Rule of Reason

Agencies should be guided by a “rule of reason” in ensuring that the level of effort expended in analyzing GHG emissions or climate change effects is reasonably proportionate to the importance of climate change related considerations to the agency action being evaluated. (CEQ at 6-7) This concept of proportionality is grounded in the fundamental purpose of NEPA to concentrate on matters that are truly significant to the proposed action (40 CFR §§ 1500.4(b), 1500.4(g), 1501.7.). CEQ guidance cautions against using a comparison of global GHG emissions to project-specific GHG emissions as a stand-alone reason for no detailed analysis, (CEQ at 11).. In light of the difficulties in attributing specific climate impacts to individual projects, CEQ recommends agencies use the projected GHG emissions as a proxy for assessing a proposed action’s potential climate change impacts (CEQ at 10)

##### Proposed Action

GHG emissions are not authorized in a leasing EA. Possible future impacts could potentially include GHG emissions from a well drilled for exploratory purposes. Estimated GHG emissions can be calculated for a single well using a generic emissions calculator available on the BLM Utah Air Quality webpage ([http://www.blm.gov/ut/st/en/prog/more/air\\_quality/airprojs.html](http://www.blm.gov/ut/st/en/prog/more/air_quality/airprojs.html)) which shows emissions of 1,192 tons per year CO<sub>2</sub>-e for a single operational well, and 2,305 tons per year CO<sub>2</sub>-e for a single drill rig. It is not possible to estimate indirect GHG emissions from leasing actions, as it is not possible to know what level of production will occur, or could likely occur, from issuance of any leases authorized under a lease sale EA.

##### No Action Alternative

Under the no action alternative no direct or indirect GHG emissions would occur from any potential future production from these lease parcels. Whether this would result in an actual reduction in future GHG emissions is unknowable, as this production could be made up from production from other oil and gas production fields.

#### **4.2.1.3 Special Designations – Old Spanish National Historical Trail**

##### Impacts of Leasing Parcel 012

Parcel 012 is located approximate 3¼ miles from segments of the OSNHT, none of which are considered high potential segments. Oil and gas development is on this parcel will not cause negative impacts to the affected environment (described in Chapter 3.3.3) of the OSNHT.

##### Impacts of Leasing Parcel 013

Parcel 013 is located approximate 1½ miles from high potential segments of the OSNHT. Distance from the trail and topographic screening will permit oil and gas development to

occur without negative impacts to the affected environment (described in Chapter 3.3.3) of the OSNHT.

**Impacts of Leasing Parcel 021**

Lease Parcel 21 is intersected by high potential segments of the OSNHT and is within the viewshed of Casa Colorado Rock, a historic landmark eligible for entry in the National Register of Historic Places. Due to the configuration of the high potential segments within the parcel, the opportunity to locate oil and gas exploration and development without causing negative impacts the OSNHT is limited. Oil and gas exploration and development has potential to negatively impact the affected environment (described in Chapter 3.3.3) of the OSNHT.

**Impacts of Leasing Parcel 022**

Parcel 022 is located within 0.5 miles from high potential segments of the OSNHT. However, there are areas within the parcel where distance from the trail and topographic screening will permit oil and gas development to occur without negative impacts to the affected environment (described in Chapter 3.3.3) of the OSNHT.

**Impacts of Leasing Parcel 023**

Lease Parcel 23 is intersected by high potential segments of the OSNHT. Due to the configuration of the high potential segments within the parcel, the opportunity to locate oil and gas exploration and development without causing negative impacts the OSNHT is limited. Oil and gas exploration and development has potential to negatively impact the affected environment (described in Chapter 3.3.3) of the OSNHT.

**Impacts of Leasing Parcel 024**

Lease Parcel 024 is intersected by high potential segments of the OSNHT. However, portions of the parcel offer distance from the trail and topographic screening that would permit oil and gas development to occur without negative impacts to the affected environment (described in Chapter 3.3.3) of the OSNHT.

**Alternative A Summary of Impacts**

As described in Table 4-4, leasing parcels 012, 013, 022, and 024 would have No Impact to the affected environment (described in Chapter 3.3.3) of the OSNHT. Leasing parcels 021 and 023 would potentially result in a “Negative Impact” to the affected environment (described in Chapter 3.3.3) of the OSNHT if oil and gas exploration and development were to occur.

**Table 4-4 – Summary of Impacts of Alternative A**

Parcel #	Offer for Lease	OSNHT Intersect	National Historic Trails Impact
UT0217 – 012	Yes	No	No Impact
UT0217– 013	Yes	No	No Impact
UT0217 – 021	Yes	Yes	Potential Negative Impact
UT0217 – 022	Yes	Yes	No Impact
UT0217 – 023	Yes	No	Potential Negative Impact
UT0217 – 024	Yes	Yes	No Impact

**4.2.1.4 Migratory Birds including Raptors**

Migratory birds are protected 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-43 and 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 (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 (April 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. Extra precautions would be taken to ensure adequate protection is given to nesting raptors. Nesting raptors would be given both seasonal and spatial protection throughout the implementation of this project according to the U.S. Fish and Wildlife Service's 2002 Raptor Protection Guidelines and through the BLM's Best Management Practices 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 of 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.

#### **4.2.1.5 Mitigation**

Mitigation for the governing RMPs was addressed within the final EISs. 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. These procedures allow BLM to achieve the standards for rangeland health.

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. It is possible that additional measures may be required at the APD stage. The stipulations and BMPs contained in the proposed action are also consistent with the USFWS's recommended conservation and resource protection measures.

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 – Offer Parcels 012, 013, 022, and 024; Defer Parcels 021 and 023.**

Alternative B is developed as a result of potential impacts from oil and gas development to Special Designations – OSNHT. Under this alternative, parcels 021 and 023 would be deferred. The impacts as described in the previous chapter (4.2.1.3) would be the same with the exception that the impacts described for parcels 021 and 023 would not occur. Table 4.5 summarizes the impacts for Alternative B.

**Table 4-5 – Summary of Impacts of Alternative B**

Parcel #	Offer for Lease	OSNHT Intersect	National Historic Trails Impact
UT0217 – 012	Yes	No	No Impact
UT0217– 013	Yes	No	No Impact
UT0217 – 021	No	Yes	No Impact
UT0217 – 022	Yes	Yes	No Impact
UT0217 – 023	No	No	No Impact
UT0217 – 024	Yes	Yes	No Impact

**4.2.3 Alternative C - 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 authorized leased parcels, oil and gas geophysical 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.

**4.2.3.1 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.

#### **4.2.3.2 Greenhouse Gas Emissions/Climate Change**

The No Action alternative would result in continuation of already approved land uses with any attendant potential emissions of greenhouse gasses and associated impacts to climate change, 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.

#### **4.2.3.3 Special Designations, OSNHT**

The No Action alternative would result in continuation of already approved land uses with any attendant impacts on Special Designations, OSNHT, but would not result in additional impacts relating to exploration and development of these lease parcels, because they would not be leased. Other land uses of the area include utility Right-of-Ways, oil and gas exploration and development activities on authorized leases, public roads and their use ranging from State and US highways to primitive roads, and recreational uses.

#### **4.2.3.4 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.

#### **4.2.3.5 Mitigation**

The No Action alternative would not require mitigation.

### **4.3 Cumulative Impacts**

A cumulative impact is defined in Council on Environmental Quality (CEQ) regulations (40 CFR §1508.7) as —the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (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 parcels; these activities likely result in negligible impacts to resources because of their dispersed nature. Other activities, such as livestock grazing, vegetation projects, motorized recreation on unpaved roads, mineral development, and wildland fire, have also occurred within some or all of the 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 parcel boundaries, they have the potential to contribute to cumulative effects.

The cumulative impacts analysis as described in the MbFO PRMP and the MtFO PRMP are incorporated by reference to Chapter 4. The proposed action would contribute to these cumulative impacts by making six parcels (6,671 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).

### **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 NO<sub>x</sub> 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 4 km 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 Chapter 3.3.1, UDAQ conducts an EI every three years of pollutants released by all emissions sources in the state. At present, San Juan County is 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 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 to cause exceedances of NAAQS.

### **4.3.2 Greenhouse Gas Emissions/Climate Change**

The CEQ has explicitly stated that it “does not expect that an EIS would be required based on (global) cumulative impacts of GHG emissions alone. Therefore, direct and indirect effects analysis for GHG emissions will adequately address the cumulative impacts for climate change from the proposed action and its alternatives and a separate cumulative effects analysis for GHG emission is not needed” (CEQ at 17). However, the BLM recognizes the importance of climate change and the potential effects it could have on natural and socioeconomic environments

Throughout the planning area, the BLM authorizes numerous types of activities and actions that result in GHG emissions, with the largest contributor being the combustion of fossil fuels for on-road and off-road vehicles, engines, and construction equipment. Additional activities that result in GHG emissions include prescribed burns and other fire management activities; authorization of ROWs for energy development and transmission, roads, pipelines, and other uses; grazing permits; and oil and gas and other mineral exploration and development. Although individually these activities result in small amounts of GHG emissions, they do contribute to the regional, national, and global pool of GHG emissions.

#### Regional Effects

The IPCC and Global Change Research Program (USGCRP 2009) include the planning area in the “southwest” region. Recent warming in the southwest region has been among the most rapid in the Nation, with the average temperature increasing approximately 1.5 °F compared to a 1960 through 1979 baseline period. Temperature increases are driving declines in spring snowpack in the region and flows in the Colorado River, combining with other factors to affect water supply. Projections suggest continued strong warming, with much larger increases under higher emissions scenarios. By the end of the century (2100), average annual temperature is projected to rise approximately 4° F to 10° F above the historical baseline, averaged over the southwest region.

### **4.3.3 Special Designations, OSNHT**

The CIAA of the OSNHT is the area of approximately 15 miles wide and 30 miles long and would include the parcels and routes of the trail. One or more of the trail routes would be visible from much, but not all, of the area. Any impact to the resources of the OSNHT from past, present or future actions would diminish with distance from the trail and topographic screening.

#### Past and Present Actions

Past actions include utility right-of-ways of power transmission lines and petroleum pipelines. Utility corridors include much of the trail route. Public roads are located near and in some cases in the same alignment of the trail. Oil and gas development and production occurs within the area.

#### Foreseeable Future Actions.

Along with the proposed action, there is one approved APD on State of Utah lands.

### Impact Analysis

Power transmission lines and petroleum pipelines produce visual impacts to much of the trail. Oil and gas well locations produce visual and sound impacts to some areas of the trail. The Lisbon Gas Processing plant is a major industrial facility within the CIAA. U.S. Highway 191 and San Juan County Roads intersect or parallel much of the trail producing visual and sound impacts.

Oil and gas exploration and development resulting from the proposed action would add incrementally to the impacts from past and present actions. Oil and gas exploration and development from Alternative B would add incrementally, but less than the proposed action, to the impacts from past and present actions. All impacts to the resources of the OSNHT are naturally mitigated to some degree by distance from the trail and by topographic screening.

#### **4.3.4 Migratory Birds including Raptors**

The CIAA for Migratory Birds is the CCDO Area. Cumulative impacts to migratory birds were adequately analyzed in the MtFO and MbFO RMPs and are included in this EA by reference (MbFO PRMP Chapter 4.3.24.14, pgs. 4-515 and 516; MtFO PRMP Chapter 4.4.15, pgs. 4-784 and 785). 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 Interdisciplinary (ID) Team Checklists provide the rationale for issues that were considered but not analyzed further. The issues were identified through the public and agency involvement process described in sections 5.2 and 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 letter sent on July 28, 2016. 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)	Consultations letters were mailed on June 27 and August 9, 2016. Refer to Appendix F for the consultation letter, a listing of Native American tribes consulted and letters of response. Consultation is on-going.
Old Spanish National Historic Trail Association	Consultation regarding National Historic Trails	Consultation letters sent on July 27, 2016.
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 11, 2016.
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 11, 2016.
Utah Division of Wildlife Resources	Interested Party Coordination	UTSO BLM mailed a letter or memo with information and the preliminary list on May 11, 2016. UDWR provided comments during the public scoping period.
San Juan County Commissioners	Interested Party Coordination	MtFO mailed a letter on June 3, 2016 informing the San Juan county Commission of the proposal.
U.S. Fish & Wildlife Service	Information on Consultation, under Section 7 of the Endangered Species Act (16 USC 1531)	Formal consultation was completed as part of the RMP/ROD in the form of the Biological Opinion. UTSO BLM mailed a memo with information and the preliminary list on May 11, 2016. Coordination with the USFWS for the February 2017 Oil and Gas lease sale is ongoing.
US Forest Service	Consult USFS as a leasing program partner.	UTSO BLM mailed a letter with information and the preliminary list on

Name	Purpose & Authorities for Consultation or Coordination	Findings & Conclusions
		May 11, 2016.
National Park Service	Consult NPS as a leasing program partner.	UTSO BLM mailed a letter or memo with information and the preliminary list on May 11, 2016. NPS provided comments on September 6, 2016.

### 5.3 Summary of Public Participation

Section 1.7 Identification of Issues of this EA, describes the public participation process used to identify the issues that are analyzed. Public notification was initiated by entering the project information on the BLM ePlanning website<sup>4</sup>, and a 30 day public scoping period on issue identification and alternative development was conducted from July 26 to August 29, 2016. Refer to Appendix E for a description of the scoping comments and BLM response.

BLM utilized and incorporated the NEPA public participation requirements to assist the agency in satisfying the public involvement requirements under Section 106 of the National Historic Preservation Act (NHPA) (16 U.S.C. 470(f) pursuant to 36 CFR 800.2(d)(3). The information about historic and cultural resources within the area potentially affected by the proposed project/action/approval will assist the BLM in identifying and evaluating impacts to such resources in the context of both NEPA and Section 106 of the NHPA. BLM consulted with Indian tribes on a government-to-government basis in accordance with Executive Order 13175 and other policies. Tribal concerns, including impacts on Indian trust assets and potential impacts to cultural resources, were given due consideration. Federal, State, and local agencies, along with tribes and other stakeholders that may be interested in or affected by the proposed project/action/approval were invited to participate in the scoping process.

A public review and comment period for the EA and unsigned FONSI is being offered from September 16, 2016 to October 17, 2016.

#### 5.3.1 Modifications Based on Public Comment

Reserved.

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<sup>4</sup> Accessed online at: [https://eplanning.blm.gov/epl-front-office/eplanning/nepa/nepa\\_register.do](https://eplanning.blm.gov/epl-front-office/eplanning/nepa/nepa_register.do)

### **5.3.2 Response to Public Comment**

Reserved

## 5.4 List of Preparers

Table 5-2 lists the preparers of this environmental analysis.

**Table 5-2 List of Preparers**

### Monticello Field Office

Name	Title	Responsible for the Following Section(s) of this Document or Determination and Rationale in the ID Team Checklists (Appendix C)
Clifford Giffen	Natural Resource Specialist, Project Lead	Air quality, Greenhouse Gas Emissions/Climate Change, Environmental Justice, Socio-Economics, Soils, Wild Horses and Burros
Leonard Herr	Air Quality Specialist, Utah BLM State Office	Air Quality, GHG Emissions/Climate
Casey Worth	Recreation Planner	ACECs, BLM Natural Areas, Recreation, Wild and Scenic Rivers, Wilderness/WSAs
Jed Carling	Rangeland Management Specialist	Farmlands, Floodplains, Livestock Grazing, Rangeland Health Standards, Wetlands/Riparian Zones, Vegetation
Don Simonis	Archaeologist Monticello Field Office	Native American Religious Concerns
Amanda Scott	Wildlife Biologist, Monticello Field Office	Wildlife, Migratory Birds, Threatened and Endangered Plant Species, Threatened and Endangered Animal Species, Water Resources/Quality, Woodland/forestry
Paul Plemons	Fuels Specialist	Fuels/Fire Management
Ted McDougall	Geologist	Minerals Resources/Energy Production
Brian Quigley	Assistant Field Office Manager	Lands/Access,
ReBecca K. Hunt-Foster	Paleontologist	Paleontology
Jeff Brown	Petroleum Engineering Technician	Wastes
Nephi Noyes	Rangeland Management Specialist	Invasive Species/Noxious Weeds,
Misti Haines	Recreation Permit Assistant	Visual Resource Management

### Moab Field Office

Name	Title	Responsible for the Following Section(s) of this Document or Determination and Rationale in the ID Team Checklists (Appendix C)
Ann Marie Aubry	Hydrologist	Air Quality, Greenhouse Gas Emissions/Climate Change, Wetlands/Riparian
Leonard Herr	Air Quality Specialist, Utah BLM State Office	Air Quality, GHG Emissions/Climate
Katie Stevens	Outdoor Recreation Planner	ACEC, Recreation, Wild and Scenic Rivers, VRM
Bill Stevens	Outdoor Recreation Planner	BLM Natural Areas, Socio-Economics, Wilderness/WSA/Wilderness Characteristics, Environmental Justice
Don Montoya	Archeologist	Native American Religious Concerns
Ashley Losey (Utah State Office)	Archaeologist	Cultural Resources
Doug Rowles	Geologist	Moab FO Team Lead, Geology / Mineral Resources/Energy Production
Pam Riddle	Wildlife Biologist	Threatened, Endangered or Candidate Animal Species, Migratory Birds, Utah BLM Sensitive Species, Fish and Wildlife Excluding USFW Designated Species
Jordan Davis	Rangeland Management Specialist	Invasive Species/Noxious Weeds, Woodland / Forestry
Dave Williams	Rangeland Management Specialist	Threatened, Endangered or Candidate Plant Species
Joshua Relph	Planning Coordinator	Fuels/Fire Management
Jan Denney	Realty Specialist	Lands/Access
R. Hunt-Foster	Geologist/Paleontology	Paleontology
Dave Pals	Geologist	Floodplains, Wastes, Surface and Ground Water
Kim Allison	Rangeland Management Specialist	Livestock Grazing, Rangeland Health Standards, Soils, Vegetation

## 6.0 REFERENCES, ACRONYMS AND APPENDICIES

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## 6.2 List of Acronyms

APD	Application for Permit to Drill
AQRV	Air Quality Related Value
BCC	Birds of Conservation Concern
BLM	Bureau of Land Management
BMP	Best Management Practice
CAS	Old Spanish National Historic Trail - Final Comprehensive Administrative Strategy
CFR	Code of Federal Regulations
CCDO	Canyon Country District Office
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
FEIS	Final Environmental Impact Statement
FLPMA	Federal Land Policy and Management Act of 1976
FONSI	Finding of No Significant Impact
GIS	Geographic Information System
ID	Interdisciplinary
IDPR	Interdisciplinary Parcel Review
IM	Instruction Memorandum
IOP	Inventory Observation Points
MBTA	Migratory Bird Treaty Act of 1918
MbFO	Moab BLM Field Office
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
PRMP	Proposed Resource Management Plan and Final Environmental Impact Statement
RFD	Reasonably Foreseeable Development Scenario for Oil and Gas
ROD	Record of Decision
RMP	Resource Management Plan
UDAQ	Utah Division of Air Quality
UDEQ	Utah Division of Environmental Quality
UDWR	Utah Division of Wildlife Resources
UPIF	Utah Partners in Flight
USFWS	United States Fish and Wildlife Service
WO	Washington Office

## 6.3 Appendices

## **Appendix A – Parcel List, Stipulations and Notices**

## **List of Lands**

### **UT0217 – 012**

T. 28 S., R. 23 E., Salt Lake  
Secs. 13 and 14: All;  
Sec. 15: NE.  
1,436.34 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 Reserves  
UT-S-229; TL – Crucial Deer and Elk Winter Range  
UTU-S-272; CSU/TL – Burrowing Owl and Ferruginous Hawk Nesting  
UT-S- 275; CSU/TL – Bald Eagles  
UT-S-329; CSU – Slopes Greater Than 30%  
UT-S-340; CSU/TL – Mexican Spotted Owl Habitat and Nest Sites

### **Lease Notices**

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  
UT-LN-128 Federal Flood Risk Management Standard  
T&E-11; California Condor

### **UT0217 – 013**

T. 30 S., R. 23 E., Salt Lake  
Sec. 26: NESW.  
40.00 Acres  
San Juan County, Utah  
Monticello Field Office

### **Stipulations**

UT-S-01; Air Quality  
UT-S-170; CSU – Cultural  
UT-S- 223; TL – Pronghorn Fawning Grounds  
UT-S- 275; CSU/TL – Bald Eagles

Lease Notices

UT-LN-25 – White-Tailed and Gunnison prairie Dog  
UT-LN-43; 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  
UT-LN-128

**UT0217 – 021**

T. 30 S., R. 24 E., Salt Lake  
Secs. 18, 19 and 20: All.  
1,910.70 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 Reserves  
UTU-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

Lease 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-67; Historical and Cultural Resource Values  
UT-LN-68; Notification & Consultation Regarding Cultural Resources  
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  
UT-LN-128 Federal Flood Risk Management Standard  
T&E-11; California Condor

**UT0217 – 022**

T. 31 S., R. 24 E., Salt Lake

Sec. 1: Lots 1-4, S2NE, SE;

Sec. 11: All;

Sec. 12: NENE, S2NE, W2NW, SENW, S2.

1,618.12 Acres

San Juan County, Utah

Monticello Field Office

Stipulations

UT-S-01; Air Quality

UT-S-98; NSO - Fragile Soils/Slopes Greater Than 40 Percent

UT-S-106; CSU - Fragile Soils/Slopes 21-40 Percent

UT-S-170; CSU – Cultural

UT-S-288; CSU/TL – Mexican Spotted Owl

Lease Notices

UT-LN-04; Crucial Mule Deer and Elk Winter Habitat

UT-LN-25; White-Tailed and Gunnison Prairie Dog

UT-LN-43; 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

UT-LN-128 Federal Flood Risk Management Standard

**UT0217 – 023**

T. 31 S., R. 24 E., Salt Lake

Sec. 4: All.

655.72 Acres

San Juan County, Utah

Monticello Field Office

Stipulations

UT-S-01; Air Quality

UT-S-98; NSO - Fragile Soils/Slopes Greater Than 40 Percent

UT-S-106; CSU - Fragile Soils/Slopes 21-40 Percent

UT-S-170; CSU – Cultural

UT-S-128; NSO – Floodplains, Riparian Areas, Springs, and Public Water Reserves

UT-S-288; CSU/TL – Mexican Spotted Owl



Lease Notices

UT-LN-04; Crucial Mule Deer and Elk Winter Habitat  
UT-LN-25; White-Tailed and Gunnison Prairie Dog  
UT-LN-43; Raptors  
UT-LN-45; Migratory Bird  
UT-LN-49; Utah Sensitive Species  
UT-LN-65; Old Spanish Trail  
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  
UT-LN-128 Federal Flood Risk Management Standard

**UT0217 – 024**

T. 31 S., R. 24 E., Salt Lake  
Sec. 13: All;  
Sec. 14: E2, N2NW;  
Sec. 15: NENE.

1,080.00 Acres

San Juan County, Utah  
Monticello Field Office

Stipulations

UT-S-01; Air Quality  
UT-S-98; NSO - Fragile Soils/Slopes Greater Than 40 Percent  
UT-S-106; CSU - Fragile Soils/Slopes 21-40 Percent  
UT-S-170; CSU – Cultural  
UT-S-242; TL – Crucial Elk Winter Range  
UT-S-288; CSU/TL – Mexican Spotted Owl

Lease Notices

UT-LN-04; Crucial Mule Deer and Elk Winter Habitat  
UT-LN-25 White-Tailed and Gunnison Prairie Dog  
UT-LN-43; Raptors  
UT-LN-45; Migratory Bird  
UT-LN-49; Utah Sensitive Species  
UT-LN-65; Old Spanish Trail  
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  
UT-LN-128 Federal Flood Risk Management Standard



## Stipulations and Lease Notices

In conformance with BLM Handbook-3120-1, *Competitive Leases (P)*, the following stipulations will be attached to all parcels:

### 1. 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. Threatened and Endangered Species Act:

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.

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

#### **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<sub>x</sub> 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<sub>x</sub> per horsepower-hour.

**Exception:** None

**Modification:** None

**Waiver:** None

**UT-S-98**

**NO SURFACE OCCUPANCY – FRAGILE SOILS/SLOPES GREATER THAN 40 PERCENT**

No new surface-disturbing activities allowed on slopes greater than 40% to protect soils, avoid erosion, and maintain public health and safety in sloped embankments.

**Exception:** If after an analysis the authorized officer determines that it would cause undue or unnecessary degradation to pursue other placement alternatives; surface occupancy in the NSO may be authorized. Additionally, a plan would be submitted by the operator and approved by BLM prior to construction and maintenance.

**Modification:** None

**Waiver:** None

**UT-S-106**

**CONTROLLED SURFACE USE – FRAGILE SOILS/SLOPES 21-40 PERCENT**

No new surface disturbance/construction on slopes between 21-40% without a BLM approved site plan that is prepared for any surface disturbing or construction activity. This plan would include an erosion control strategy, survey and design, and reclamation plan.

**Exception:** None

**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-128**

**NO SURFACE OCCUPANCY –**

**FLOODPLAINS, RIPARIAN AREAS, SPRINGS, AND PUBLIC WATER RESERVES**

No surface-disturbing activities are allowed in active floodplains, public water reserves or within 100 meters of riparian areas along perennial streams and 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 enhance the riparian resource values.

**Modification:** None

**Waiver:** None

**UT-S-170**

**CONTROLLED SURFACE USE – CULTURAL**

Cultural properties eligible for or listed on the National Register of Historic Places shall be surrounded by an avoidance area sufficient to avoid impacts. (Although oil and gas activity must also meet this standard, a CSU lease stipulation is not necessary since this can be accomplished under the terms of the standard lease form.)

**Exceptions:** An exception could be granted if the BLM authorized officer determines that avoidance of direct and indirect impacts to historic properties is not feasible (e.g. avoidance may cause unacceptable damage to other public land resources or affect valid existing rights).

**Modification:** None

**Waiver:** None

**UT-S-223**

#### **TIMING LIMITATION – PRONGHORN FAWNING GROUNDS**

No surface-disturbing activities from **May 1 to June 15** within pronghorn fawning grounds to minimize stress and disturbance during crucial antelope birthing time.

**Exception:** The authorized officer may grant an exception after an analysis the authorized officer determines that the animals are not present in the project area or the activity can be completed so as to not adversely affect the animals. Routine operation and maintenance is allowed.

**Modification:** The authorized officer may modify the boundaries of the stipulation area if a portion of the area is not being used as pronghorn fawning grounds.

**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-242**

#### **TIMING LIMITATION – CRUCIAL ELK WINTER RANGE**

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

**Exception:** The authorized officer may grant an exception if, after an analysis, the authorized officer determines that the animals are not present in the project area or the activity can be completed so as to not adversely affect the animals. Routine operation and maintenance is allowed.

**Modification:** The authorized officer may modify the boundaries of the stipulation area if a portion of the area is not being used as elk winter range.

**Waiver:** May be granted if the elk winter range is determined to be unsuitable or unoccupied and there is no reasonable likelihood of future use of the elk winter range.

#### **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-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 0.5 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-288**  
**CONTROLLED SURFACE USE/ TIMING LIMITATION –**  
**MEXICAN SPOTTED OWL**

In areas that contain suitable habitat for MSO or designated Critical Habitat, actions would be avoided or restricted that may cause stress and disturbance during nesting and rearing of their young. Appropriate measures would 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. 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 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 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 through consultation concurs with this determination.

**Modification:** The authorized officer may modify the boundaries of the stipulation area if an 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-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.

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 NO<sub>x</sub>/bhp-hr for engines <300HP; and 1g NO<sub>x</sub>/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 NO<sub>x</sub>/bhp-hr for engines <300HP and 1g NO<sub>x</sub>/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-04**

**CRUCIAL MULE DEER AND ELK WINTER HABITAT**

The lessee/operator has been given notice that the area has been identified as containing crucial deer winter range. Exploration, drilling and other development activities would be restricted from November 15 through April 15. Modifications including seasonal restrictions may be required to the Surface Use Plan of Operations in order to protect the winter range. This limitation does not apply to operation and maintenance of producing wells.

**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-43**

**RAPTORS**

The lessee/operator is given notice that this lease has been identified as containing raptor habitat. Surveys will be required whenever surface disturbances and/or occupancy is proposed in association with fluid mineral exploration and development within potential raptor nesting areas. 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. 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-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 & 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.

#### **UT-LN-128**

##### **FEDERAL FLOOD RISK MANAGEMENT STANDARD**

To mitigate potential impacts to floodplains, activities would be limited or precluded within the 500 year base flood level (area subject to flooding by the 0.2 percent annual chance flood) or the

100 year base flood elevation plus 3 feet. (Executive Order 13690 amending Executive Order 11988).

## T&E-11 CALIFORNIA CONDOR

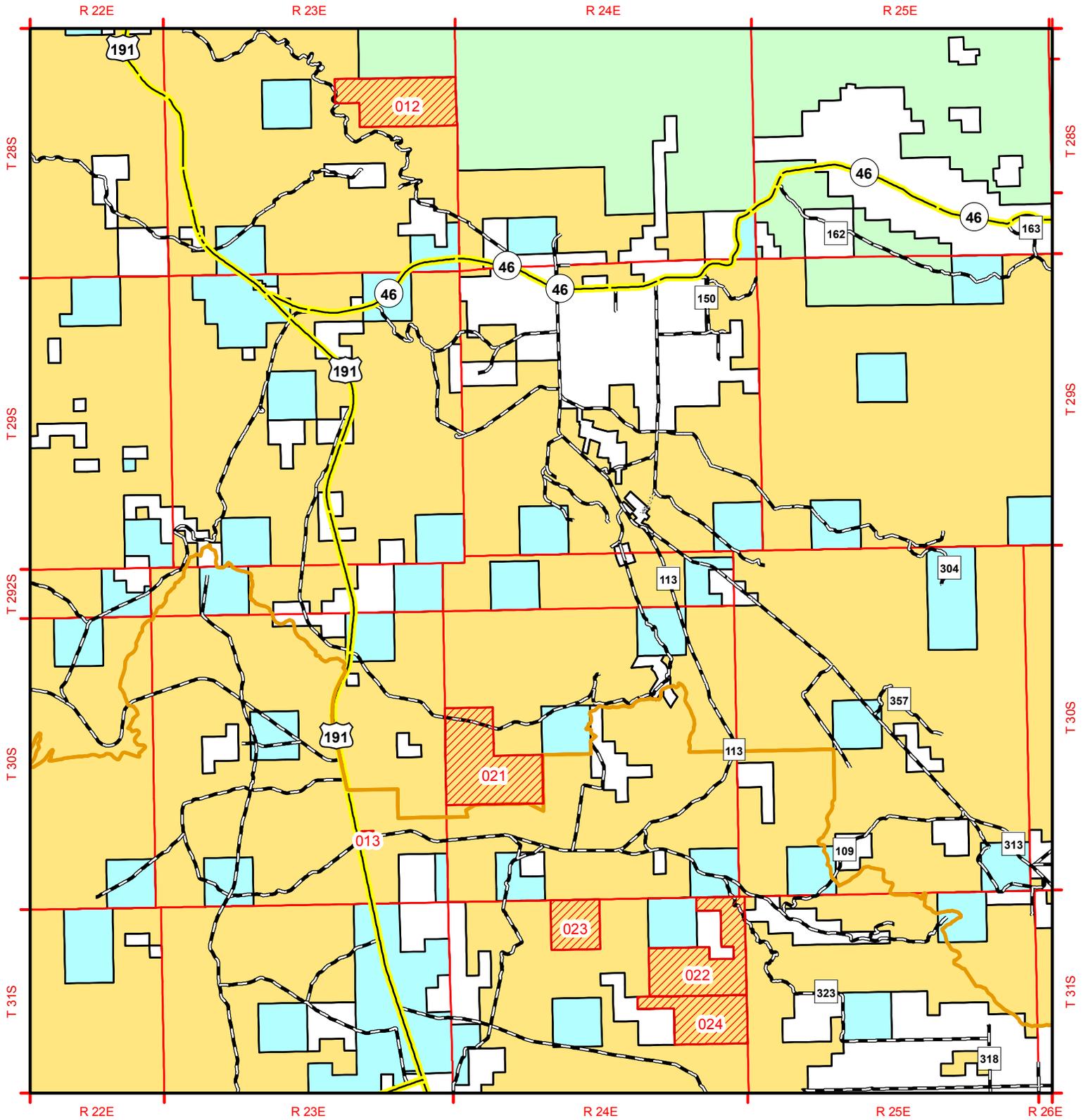
The Lessee/Operator is given notice that the lands located in this parcel contain potential habitat for the California Condor, a federally listed species. Avoidance or use restrictions may be placed on portions of the lease if the area is known or suspected to be used by condors. Application of appropriate 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**



Location Map  
Utah BLM Field Office Boundaries



Date: 8/8/2016

**Legend**

-  2017 Lease Parcels
-  Field Office Boundary
-  State Highways
-  Class B Roads

**Land Status**

-  Bureau of Land Management (BLM)
-  Private
-  State
-  US Forest Service (USFS)



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*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.*

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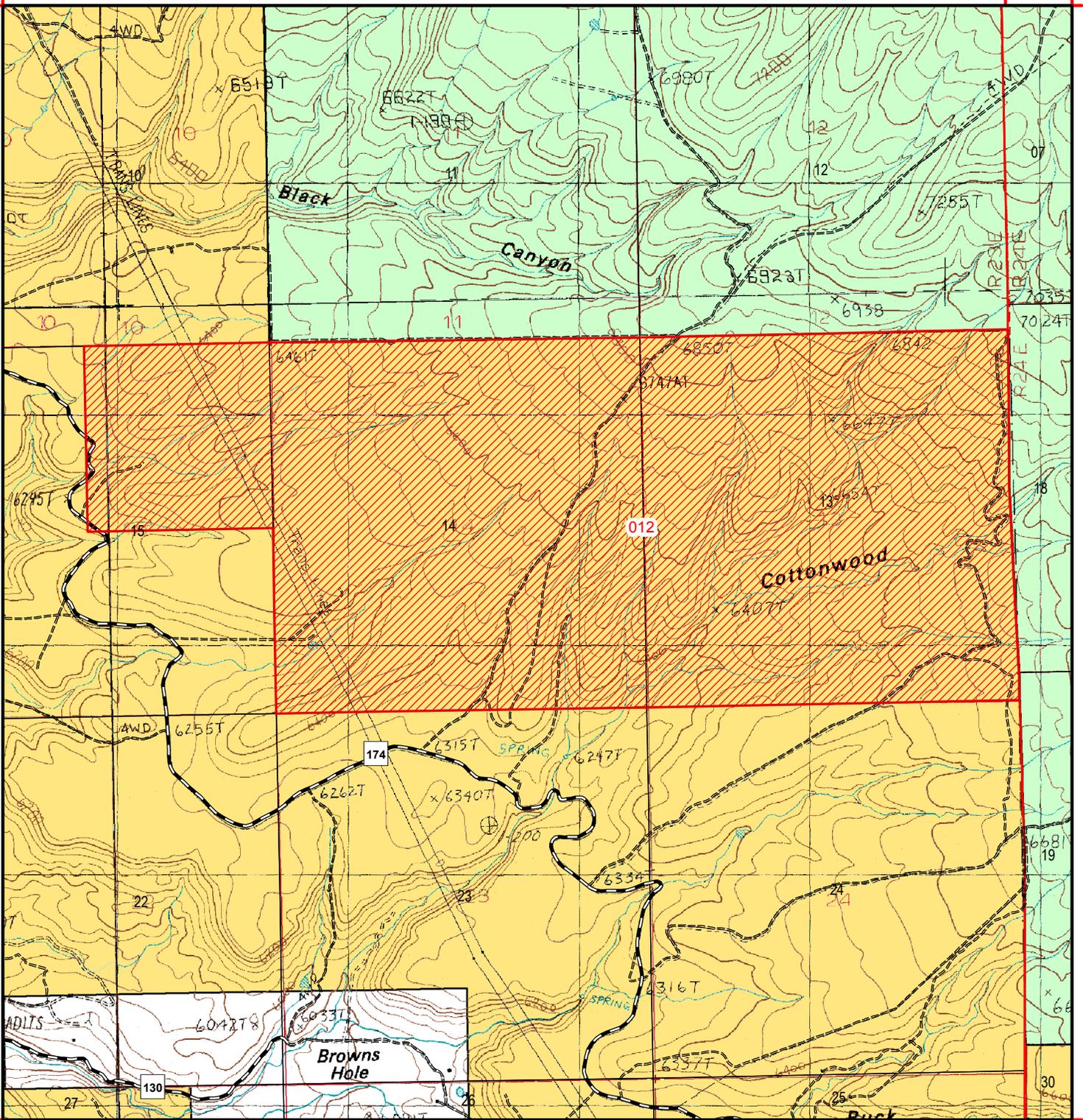
R 24E

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T 28S

R 23E

R 24E



Location Map  
 Utah BLM Field Office Boundaries



Date: 8/8/2016

**Legend**

-  2017 Lease Parcels
-  State Highways
-  Class B Roads

**Land Status**

-  Bureau of Land Management (BLM)
-  Private
-  State
-  US Forest Service (USFS)



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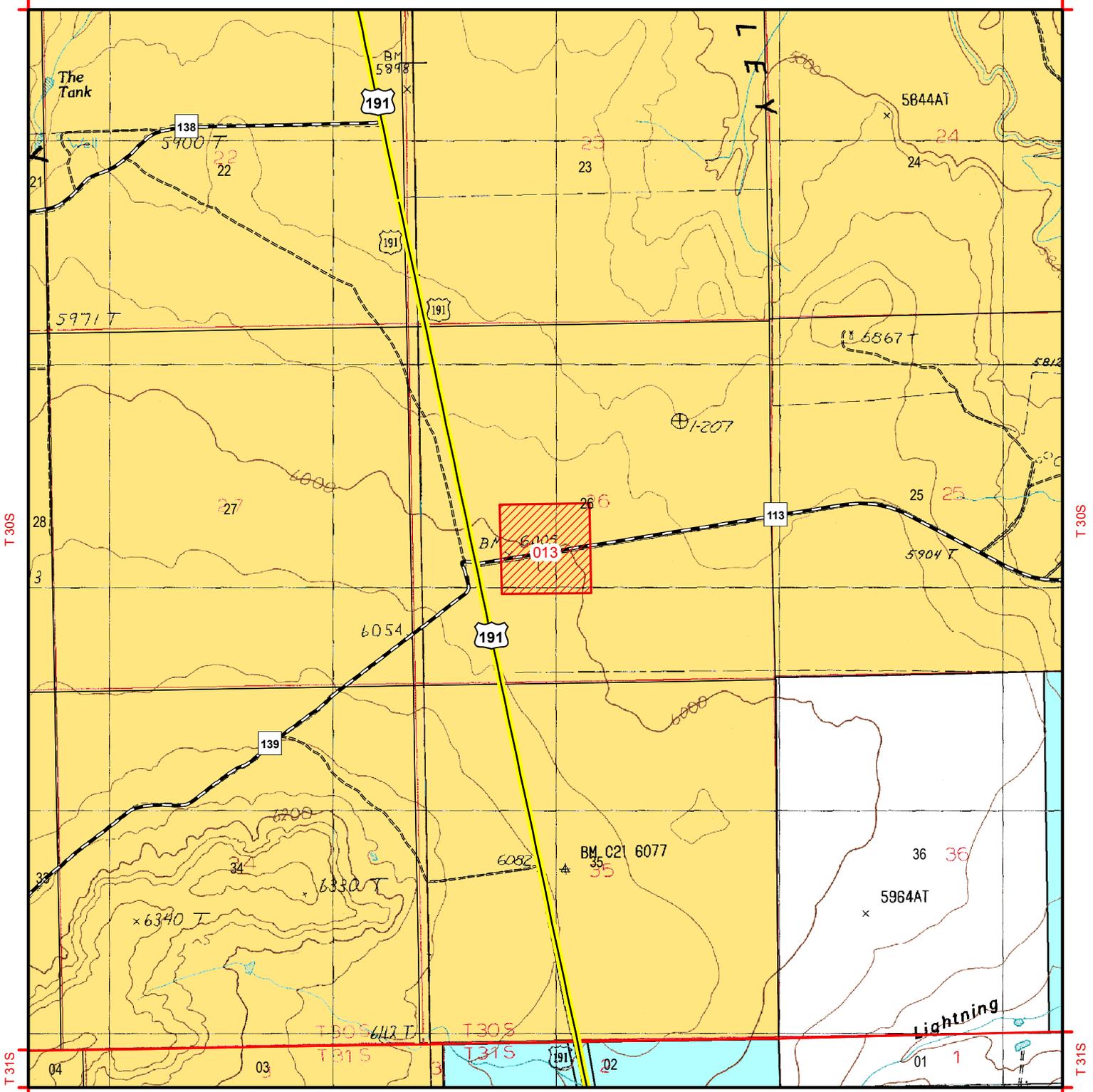
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*No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data.*

R 23E



**Legend**

-  2017 Lease Parcels
-  State Highways
-  Class B Roads
-  Class D Roads

**Land Status**

-  Bureau of Land Management (BLM)
-  Private
-  State
-  US Forest Service (USFS)

Location Map  
 Utah BLM Field Office Boundaries



Date: 8/8/2016

R 23E



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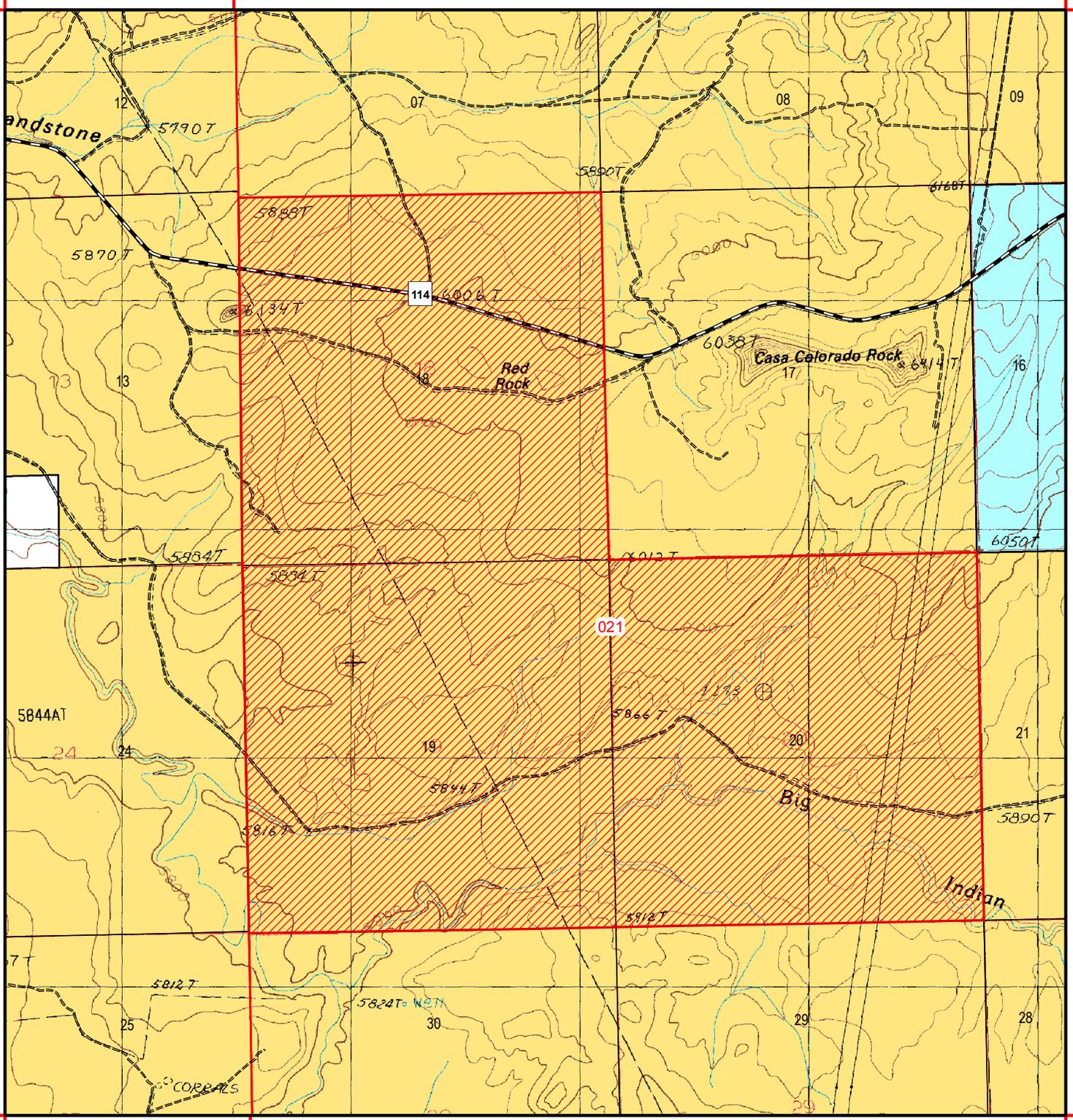
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*No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data.*



Location Map  
 Utah BLM Field Office Boundaries



Date: 8/8/2016

**Legend**

-  2017 Lease Parcels
-  State Highways
-  Class B Roads
-  Class D Roads

**Land Status**

-  Bureau of Land Management (BLM)
-  Private
-  State
-  US Forest Service (USFS)



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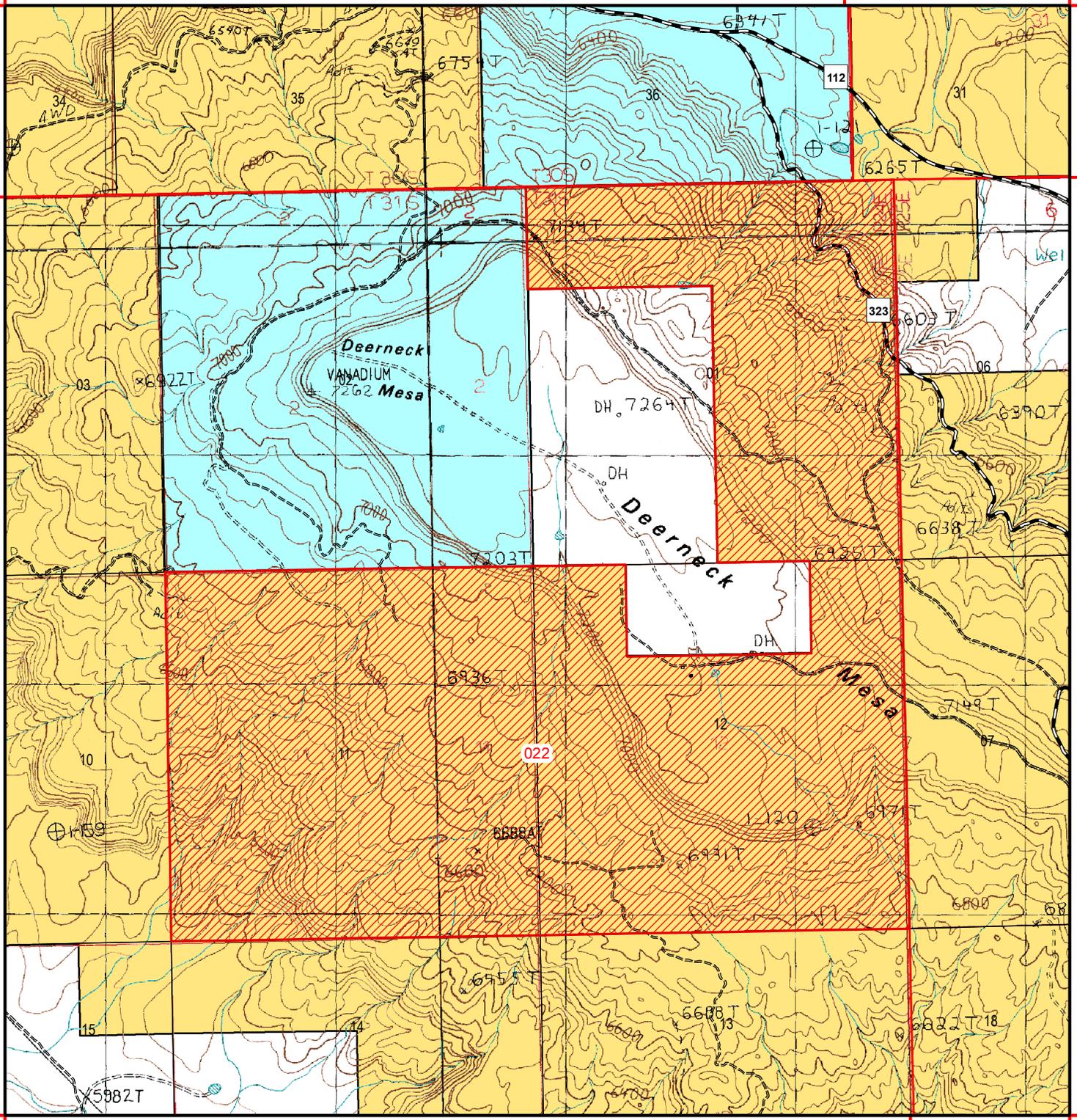
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T 31S

R 24E

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Location Map  
 Utah BLM Field Office Boundaries



Date: 8/8/2016

**Legend**

-  2017 Lease Parcels
-  State Highways
-  Class B Roads
-  Class D Roads

**Land Status**

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-  Private
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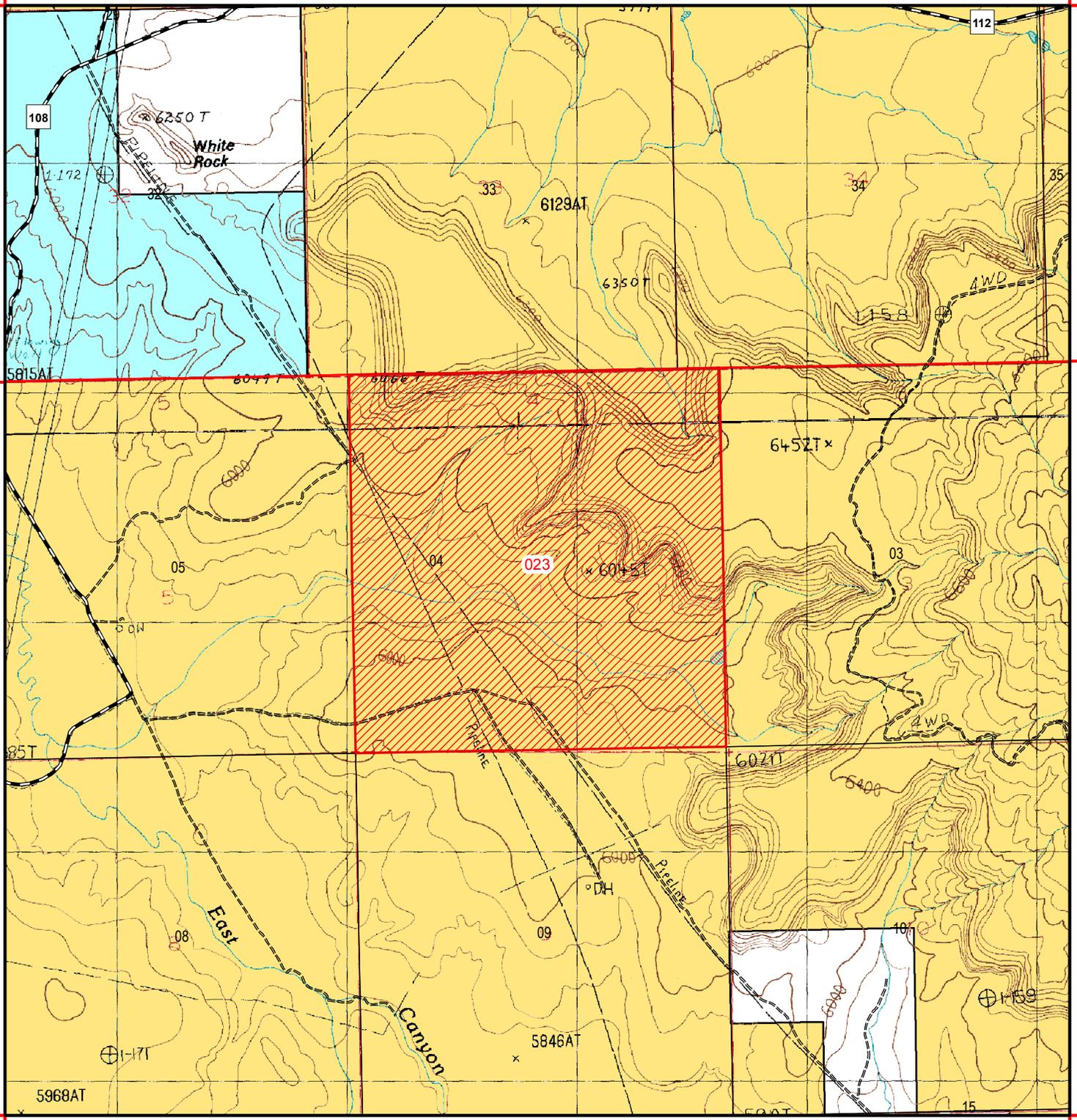
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T 31S

T 31S



R 24E

**Legend**

-  2017 Lease Parcels
-  State Highways
-  Class B Roads
-  Class D Roads

**Land Status**

-  Bureau of Land Management (BLM)
-  Private
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Location Map  
 Utah BLM Field Office Boundaries



Date: 8/8/2016



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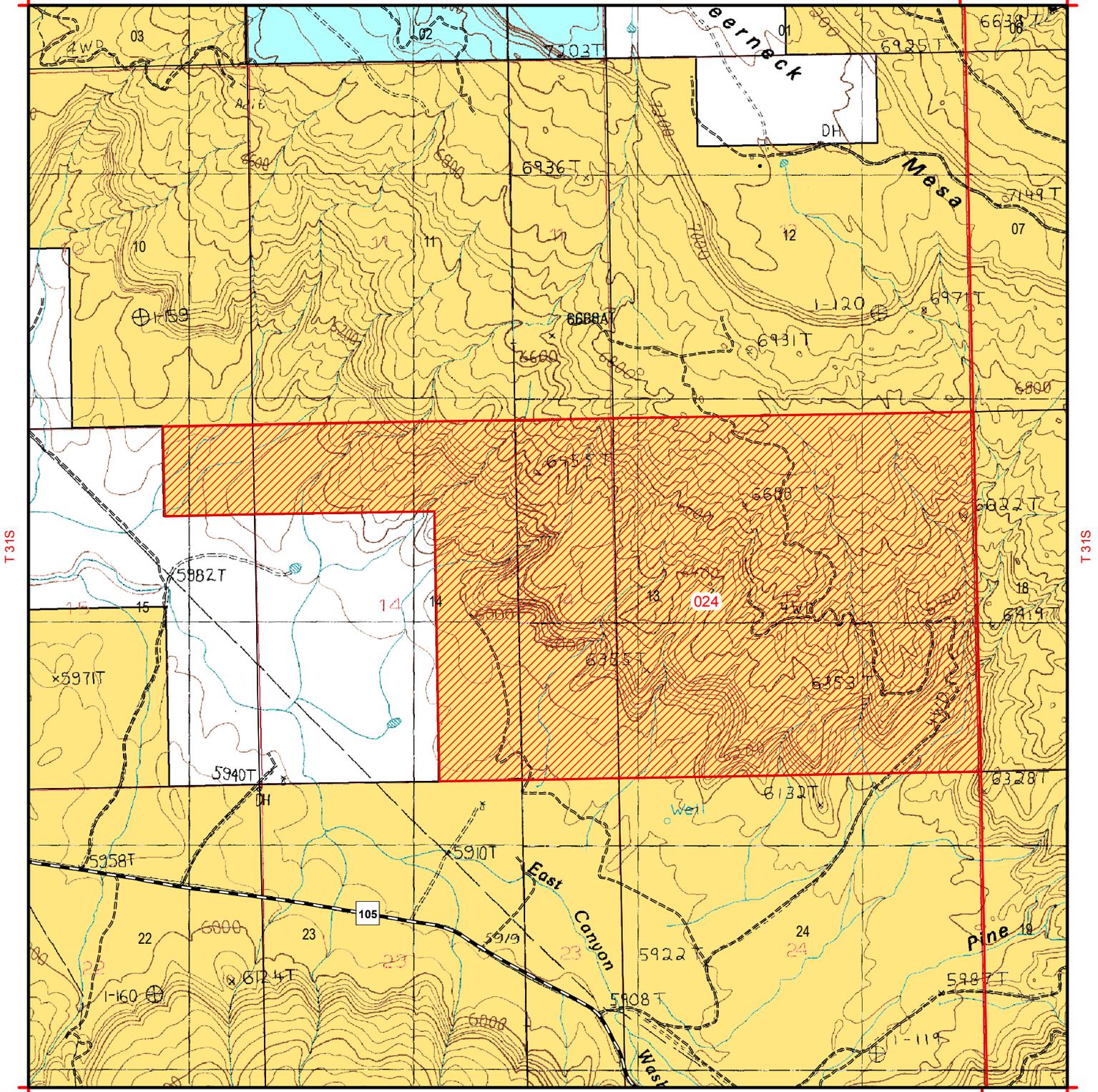
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R 24E

R 25E



T 31S

T 31S

R 24E

R 25E

Location Map  
 Utah BLM Field Office Boundaries



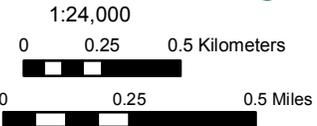
Date: 8/8/2016

**Legend**

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-  State Highways
-  Class B Roads
-  Class D Roads

**Land Status**

-  Bureau of Land Management (BLM)
-  Private
-  State
-  US Forest Service (USFS)



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## **Appendix C – Interdisciplinary Team Checklists**

## INTERDISCIPLINARY TEAM CHECKLIST

**Moab Field Office**

**Project Title:** February 2017 Competitive Oil and Gas Lease Sale

**NEPA Log Number:** DOI-BLM-UT-Y020-2016-0042-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	<p>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.</p> <p>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.</p> <p>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.</p> <p>Impacts to air quality are analyzed in detail in Chapters 3 and 4 of this EA.</p>	Ann Marie Aubry Leonard Herr	5/5/2016
NP	Areas of Critical Environmental Concern	The parcels do not occur within an ACEC. See 2008 RMP.	Katie Stevens	5/5/2016
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	5/11/2016

Determination	Resource	Rationale for Determination	Signature	Date
NI	Cultural Resources	<p>BLM completed an intensive records review and GIS analysis for the six parcels offered for the February 2016 oil and gas competitive lease sale. This analysis is documented in a draft report titled <i>Cultural Resources Records Review for the Bureau of Land Management February 2017 Oil and Gas Lease Sale</i>, dated August 29, 2016. Using existing site and survey data, the BLM considered this undertaking's potential adverse effects to historic properties. The APE is bounded by each of the parcels and the unit of analysis was the development of one 5-acre well pad, or BLM's determined reasonably foreseeable development. Each parcel was additionally analyzed for potential indirect effects; a half mile buffer was added to each parcel and historic properties therein were analyzed for sensitivity to potential indirect effects.</p> <p>Following analysis that took into account parcel size and location and the data from the cultural resource records review, BLM determined that the six parcels are characterized by expected low to moderate site densities, at least in sufficient area for development to occur. Therefore, the BLM determines that reasonable development (one 5-acre well pad) can occur within parcels 012, 013, 021, 022, 023, and 024 without adverse effects to historic properties. The BLM therefore makes a determination of "<b>No Adverse Effect</b>" [36CFR800.5(b)] for the February 2017 Oil and Gas Lease Sale.</p> <p>Based on the analysis of cultural resources which lead to BLM's determination of "No Adverse Effect" to cultural properties, cultural resources will not be impacted to the degree that would require a detailed analysis in the EA. Consultation with SHPO, organizations and agencies with interest or oversight over the Old Spanish Trail, and Native American tribes is ongoing.</p> <p>The following lease stipulations and notices will be attached to appropriate parcels:</p> <ul style="list-style-type: none"> <li>• Cultural Resources Stipulation as required by BLM Handbook-3120-1,</li> <li>• UT-S-170- Cultural Resources (Monticello RMP, 2008),</li> <li>• UT-LN-67 – Historical and Cultural Resource Values, and</li> <li>• UT-LN-68- Notification and Consultation regarding Cultural Resources.</li> </ul>	Ashley Losey (Utah State Office)	9/14/2016
PI	Special Designation - Old Spanish National Historic Trail (OSNHT)	Three parcels, 21, 23, and 24 intersect the OSNHT. The proposed action has the potential to impact the resources of the OSNHT. Consultation was conducted with organizations and agencies with interest or oversight over the Old Spanish Trail. Impacts to the OSNHT will be analyzed in detail in the EA.	Don Montoya	
PI	Greenhouse Gas Emissions/Climate Change	The proposed action has the potential to emit greenhouse gases and impact climate. Greenhouse gas emissions/Climate will be analyzed in detail in the EA.	Ann Marie Aubry Leonard Herr	5/5/2016

Determination	Resource	Rationale for Determination	Signature	Date
NI	Environmental Justice	No EJ populations living in the vicinity of the project area.	Bill Stevens	5/11/2016
NI	Fish and Wildlife Excluding USFWS Designated Species	<p>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.</p> <p>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.</p> <p>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.</p> <p>Mule deer &amp; elk crucial winter range – parcel 012 (UT-S-229 Crucial mule deer and elk winter habitat)</p>	Pamela Riddle	5/23/2016
NI	Floodplains	<p>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.</p> <p>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.</p> <p>Stipulation UT-S-122 does not allow surface disturbing activities within 100- year floodplains. Parcel UT-0217-8559-021 has a large floodplain that is addressed by stipulation UT-S-122.</p> <p>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.</p>	David Pals	6/10/2016

Determination	Resource	Rationale for Determination	Signature	Date
NI	Fuels/Fire Management	<p>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.</p> <p>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.</p>	Josh Relph	5/23/2016
NI	Geology/Mineral Resources/Energy Production	<p>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 remains valid.</p> <p>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.</p> <p>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.</p> <p>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.</p>	Doug Rowles	5/27/2016

Determination	Resource	Rationale for Determination	Signature	Date
		Therefore, Geology/Mineral Resources/Energy Production will not be analyzed in further detail in the EA.		
NI	Invasive Species/Noxious Weeds (EO 13112)	<p>No known noxious plants occur within the lease parcels. Invasive plants that occur throughout these parcels in isolated pockets are cheatgrass (<i>Bromus tectorum</i>), Russian thistle (<i>Salsola kali</i>), and halogeton (<i>Halogeton glomeratus</i>).</p> <p>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 irrevocable 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.</p> <p>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 other resources and users from oil and gas exploration and development activities.</p> <p>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.</p> <p>Invasive species/noxious weeds will not be impacted to the degree that will require detailed analysis in the EA.</p>	Jordan Davis	5/19/2016
NI	Lands/Access	<p>The lease parcels would be subject to valid existing rights. 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.</p> <p>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.</p> <p>Impacts to lands/access would be analyzed in project</p>	Jan Denney	5/20/2016

Determination	Resource	Rationale for Determination	Signature	Date
		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.		
NI	Livestock Grazing	<p>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 analysis and documentation process. These SOPs, BMPs, and COAs, mitigate impacts to other resources and users from oil and gas exploration and development activities.</p> <p>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.</p>	Kim Allison	6/14/2016
PI	Migratory Birds/Raptors	<p>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).</p> <p>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.</p> <p>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 parcels to notify the lessee of the possible presence of raptor habitats and nesting at the leasing stage.</p> <p>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 &amp; disturbances to raptors and golden eagles during nesting season. Permanent facilities may be re-located to avoid long disturbances to active raptor/eagle nests.</p>	Pamela Riddle	5/23/2016

Determination	Resource	Rationale for Determination	Signature	Date
		<p>Bald Eagle winter habitat – parcel 012 and 021 (UT-S-275 Bald Eagle winter habitat)</p> <p>The above mentioned lease notices and mitigation measures may reduce impacts but residual impacts to migratory birds and raptors will be further analyzed.</p>		
NI	Utah BLM Sensitive Species	<p>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.</p> <p>Stipulations for burrowing owl and ferruginous hawk (Stipulation UT-S-272-CSU/TL Burrowing Owl and Ferruginous Hawk Nesting) are attached to parcels 012 and 021.</p> <p>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. This model indicates parcel 021 to potentially have high value kit fox habitats. Stipulation UT-S-298 (Kit Fox) is used to protect kit fox in parcel 021. All parcels will have UT-LN-49 attached to notify the lessee of the potential for sensitive species habitat that will include kit fox.</p> <p>Gunnison prairie dog habitat models supplied by the DWR indicate Gunnison habitat may be found on parcel 021. Lease notice UT-LN-25 CSU will be applied to this parcel. This notice is used to notify the lessee of the possible presence of prairie dogs at the leasing stage.</p> <p>Other sensitive species may also be found on all parcels; 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.</p> <p>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.</p> <p>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.</p>	Pamela Riddle	5/23/2016
NI	Native American Religious Concerns	<p>Based on previous ethnographic studies and recent consultation efforts with Tribes in the region, there are no sacred sites or Native American Religious Concerns documented within these specific parcels. The issuance of leases would not directly impact Native American Religious Concerns.</p> <p>Native American Consultation was conducted regarding the</p>	Don Montoya	

Determination	Resource	Rationale for Determination	Signature	Date
		<p>Proposed Action. The BLM consultation letter, the list of Native American Tribes consulted, and responses are contained in Appendix F of the EA. The Hopi Tribe has responded by letter dated August 4, 2016 requesting copies of the draft EA and the cultural report for review and comment.</p> <p>The following lease stipulations and notices will be attached to appropriate parcels:</p> <ul style="list-style-type: none"> <li>• Cultural Resources Stipulation as required by BLM Handbook-3120-1,</li> <li>• UT-LN-67 – Historical and Cultural Resource Values, and</li> <li>• UT-LN-68- Notification and Consultation regarding Cultural Resources.</li> </ul> <p>Native American Concerns is not impacted to the degree that would require detailed analysis in the EA. Native American consultation is on-going.</p>		
NI	Paleontology	<p>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.</p> <p>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.</p> <p>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.</p> <p>Attachment of this lease notice will adequately mitigate impacts to paleontological resources. Paleontology is not impacted to the degree that would require detailed analysis in the EA.</p>	ReBecca Hunt Foster	5/5/2016
NI	Rangeland Health Standards	<p>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</p>	Kim Allison	6/14/2016

Determination	Resource	Rationale for Determination	Signature	Date
		<p>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.</p> <p>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.</p> <p>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.</p> <p>Thereby, for reasons listed above, Rangeland Health Standards as a whole are not affected to a degree that detailed analysis is required.</p>		
NI	Recreation	<p>The two parcels are in areas not heavily used for recreation. There may be some hunting use during the hunting season. A very small portion of the northern part of Parcel #021 is within the Cameo Cliffs Special Recreation Management Area, which is managed for motorized recreation. Motorized use occurs on the designated road which traverses the northern part of this parcel. This use is not intensive.</p> <p>Recreation is not impacted to the degree that would require detailed analysis in the EA.</p>	Katie Stevens	5/5/2016
NI	Socio-Economics	<p>Even if leases were developed, very small effect relative to the overall economies of the two counties involved.</p>	Bill Stevens	5/11/2016
NI	Soils (including biological soil crusts)	<p>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.</p> <p>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</p>	Kim Allison	6/14/2016

Determination	Resource	Rationale for Determination	Signature	Date
		<p>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.</p> <p>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.</p> <p>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.</p>		
NI	Threatened, Endangered or Candidate Plant Species	<p>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.</p> <p>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, 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.</p> <p>There are two threatened plant species within the Moab Field Office. Portions of lease parcels 012 and 021 have potential habitat for Jones Cycladenia and Navajo Sedge. There are no known species occupancy within the vicinity of the lease parcels 012 and 021. 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.</p> <p>The stipulation and notice will ensure compliance with the ESA and will adequately mitigate impacts to T&amp;E species/habitat. T&amp;E plant species is not impacted to the degree that would require detailed analysis in this EA.</p>	Dave Williams	
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.	Pamela Riddle	5/23/2016

Determination	Resource	Rationale for Determination	Signature	Date
		<p>See appendix A for the parcels containing USFWS Lease Notices. USFWS T&amp;E Lease Notice for California Condor (T&amp;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 parcels 012 and 021 due to foraging habitats within the parcel, though no nesting potential is known to occur in these parcels. The stipulations will adequately mitigate impacts from the Proposed Action to T&amp;E, endangered or candidate animal species. T&amp;E, Endangered or candidate animal species will not be impacted to the degree that will require detailed analysis in the EA.</p>		
NI	Wastes (hazardous or solid)	<p>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.</p> <p>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.</p> <p>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.</p>	David Pals	6/10/2016
NI	Groundwater Resources/Quality	<p>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.</p> <p>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</p>	David Pals	6/10/2016

Determination	Resource	Rationale for Determination	Signature	Date
		<p>would be identified and addressed during the site-specific NEPA process.</p> <p>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, Exploration and Development- Utah BLM. The purpose of this IM is to clarify the process for the protection of usable ground water zones (<math>\leq 10,000</math> 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.</p> <p>The lease parcels are not within nor do they contain any Sole Source Aquifers or Public Drinking Water Source Protection Zones.</p> <p>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.</p>		
NI	Surface Water Resources/Quality	<p>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.</p> <p>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.</p> <p>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 surface water quality.</p> <p>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</p>	David Pals	6/10/2016

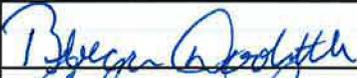
Determination	Resource	Rationale for Determination	Signature	Date
		<p>Moab RMP provides for the protection of surface water resources with Management Decision SOL-WAT-5 which states “allow no surface occupancy and preclude surface disturbing activities within 100-year floodplains, within 100 meters of a natural spring or within public water reserves” (ROD p. 102).</p> <p>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. Parcel # UT-0217-8559-021 and UT-0217-8550-012 contain streams; these resources are addressed by stipulation UT-S-122.</p> <p>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.</p>		
		<p>EPA stated in the draft June 2015, <i>Assessment of the Potential Impacts of Hydraulic Fracturing for Oil and Gas on Drinking Water Resources</i> (“EPA Draft” <a href="http://cfpub.epa.gov/ncea/hfstudy/recordisplay.cfm?deid=244651">http://cfpub.epa.gov/ncea/hfstudy/recordisplay.cfm?deid=244651</a>), that “We did not find evidence that these mechanisms have led to widespread, systemic impacts on drinking water resources in the United States....The number of identified cases where drinking water resources were impacted are small relative to the number of hydraulically fractured wells....There is insufficient pre- and post-hydraulic fracturing data on the quality of drinking water resources. This inhibits a determination of the frequency of impacts. Other limiting factors include the presence of other causes of contamination, the short duration of existing studies, and inaccessible information related to hydraulic fracturing activities.” See EPA Draft at ES-23. The potential impacts to surface and/or ground water from hydraulic fracturing activities has not been shown to reach a level requiring detailed analysis.</p> <p>Water resources may be present or high potential for water at some time of the year may occur on the parcels. Further examination and a thorough analysis would be included when an APD is received and before drilling is allowed.</p>	Mike McKinley	9/15/16
NI	Wetlands/Riparian Zones	<p>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</p>	Ann Marie Aubry	5/19/2016

Determination	Resource	Rationale for Determination	Signature	Date
		<p>approximately 4 acres per year for 10 years or 40 acres total over a 10 year period.</p> <p>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 and gas exploration and development activities.</p> <p>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).</p> <p>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.</p> <p>There are no documented riparian resources on these parcels.</p>		
NP	Wild and Scenic Rivers	There are no designated wild and scenic river segments within the parcels. See 2008 RMP.	Katie Stevens	5/5/2016
NP	Wilderness/WSA	The parcels are not within any designated BLM Wilderness Study Areas (WSA) or designated wilderness areas. See 2008 RMP.	Bill Stevens	5/11/2016
NI	Woodland / Forestry	<p>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.</p> <p>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 woodlands/forestry from oil and gas exploration and development activities. Woodland/forestry resources will not be impacted to the degree that will require detailed</p>	Jordan Davis	5/19/2016

Determination	Resource	Rationale for Determination	Signature	Date
		analysis in the EA.		
NI	Vegetation Excluding USFWS Designated Species	<p>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.</p> <p>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.</p>	Kim Allison	6/14/2016
NI	Visual Resources	<p>The construction, drilling, completion, testing, and production of an oil and gas well would cause impacts to visual resources. Parcel #012 is designated as VRM Class III and Parcel #021 contains both VRM Class III and VRM Class IV. The Moab RMP applies no special VRM stipulations to these VRM management classes. VRM Class III allows for moderate changes to the landscape, and VRM Class IV provides for management activities such as oil and gas exploration and development that require major modifications to the existing character of the landscape.</p> <p>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.</p>	Katie Stevens	5/5/2016
NI	Lands with Wilderness Characteristics	The parcels are not within any areas identified by BLM as possessing wilderness characteristics.	Bill Stevens	5/11/2016

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**FINAL REVIEW:**

Reviewer Title	Signature	Date	Comments
Environmental Coordinator		9/16/2016	
Authorized Officer		9/16/2016	

## INTERDISCIPLINARY TEAM CHECKLIST

**Monticello Field Office**

**Project Title:** February, 2017 Canyon Country District Oil and Gas Lease Sale

**NEPA Log Number:** DOI-BLM-UT-Y020-2014-026

**File/Serial Number:** Not Applicable

**Project Leader:** Cliff Giffen

**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)**

Determination	Resource	Rationale for Determination	Signature	Date
PI	Air Quality	<p>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. San Juan County is 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.</p> <p>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.</p> <p>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 MFO RMP, lease stipulation UT-S-01 requiring engine emission standards would be attached to each lease. Lease notices LN-UT-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.</p> <p>Impacts to air quality are analyzed in detail in Chapters 3 and 4 of this EA.</p>	Cliff Giffen Leonard Herr	8/10/16
NP	Areas of Critical Environmental Concern	None of the parcels occur within any Monticello RMP, 2008 designated ACEC.	Casey Worth	08/15/16
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.	Casey Worth	08/15/16
	Cultural Resources	See Moab FO checklist.		

Determination	Resource	Rationale for Determination	Signature	Date
PI	Greenhouse Gas Emissions/Climate Change	The proposed action has the potential to emit greenhouse gases and impact climate. Greenhouse gas emissions/Climate will be analyzed in detail in the EA.	Cliff Giffen Leonard Herr	8/10/16
NI	Environmental Justice	Minority and low income populations do exist in the Monticello FO area. The PRMP/FEIS, 2008 adequately assessed impacts to environmental justice population as defined in Executive Order 12898 and it was determined that no BLM action proposed across all alternatives or the Proposed Plan would target or cause any disproportionate impacts to any minority or low income segments of the population (Monticello PRMP/FEIS, 2008 p. 4-421; Moab PRMP/FEIS, 2008 p. 4-253). All citizens can file an expression of interest or participate in the bidding process (43 CFR §3120.3-2). The stipulations and notices applied to the subject parcels do not place an undue burden on these groups. Environmental justice will not be impacted to the degree that would require detailed analysis in the EA.	Cliff Giffen	8/10/16
NP	Farmlands (Prime or Unique)	None of the parcels contain prime or unique farmlands. There are no prime or unique farmlands identified in the Monticello planning areas (Monticello PRMP/FEIS, pg. 4-7).	Jed Carling	8/1/16
NI	Fish and Wildlife Excluding USFWS Designated Species	<p>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.</p> <p>The proposed action in the Monticello FO is estimated to account for approximately 1 oil and gas well and cause surface disturbance of approximately 10 acres over the next 10 year period.</p> <p>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.</p> <p>Detailed information on the appropriate lease stipulations and notices are contained in the 2008 Monticello RMP. The BLM worked with Utah Division of Wildlife Resources (UDWR) along with others to develop the stipulations and notices as mitigation for the leasing stage. Wildlife habitat and criteria were identified from GIS data layers developed by the BLM, UDWR/Utah Natural Heritage Program data and field office records. These habitats are addressed in the RMP and provided certain protections through stipulations or notices.</p>	Mandy Scott	9/16/16

Determination	Resource	Rationale for Determination	Signature	Date
		<p>The UDWR has identified areas as containing crucial deer and elk habitat. In most cases the BLM and UDWR habitat data are consistent. In some cases they are not. For those parcels identified by UDWR as deer and elk habitat but not specified as such in the MtFO RMP, lease notice UT-LN-04: Crucial Deer and Elk Habitat will be attached.</p> <p>Appropriate stipulations and notices are attached to each lease parcel as required by the RMP. Refer to Appendix A of the EA for a list of the parcels with the stipulations and lease notices, including those related to wildlife species and habitat, which are to be attached.</p> <p>Application of the RMP stipulations applicable to oil and gas leasing and other surface disturbing activities impacts and mitigations were adequately analyzed in the November 2008 Monticello Field Office RMP. Field parcel visits confirmed that the wildlife species and habitat determinations and analysis, including stipulations and lease notices, are still appropriate for the Proposed Action.</p> <p>Lease stipulations and notices, SOP, BMPs, and COAs would adequately mitigate impacts from exploration and development activities to fish and wildlife species and habitat.</p> <p>Fish and wildlife resources are not impacted to the degree that would require detailed analysis in the EA.</p>		
NI	Floodplains	<p>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 Monticello FO is estimated to account for approximately 1 oil and gas well and cause surface disturbance of approximately 10 acres over the next 10 year period.</p> <p>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.</p> <p>Stipulations applicable to oil and gas leasing are contained in appendix B of the Monticello RMP and specifies a no surface occupancy for active floodplains except under certain controlled conditions. This stipulation (UT-S-128) will be attached to appropriate parcels as required by the RMP. Application of this RMP stipulation will adequately mitigate impacts to floodplains with no surface occupancy.</p> <p>Thereby, for reasons listed above, floodplains will not be</p>	Jed Carling	8/1/16

Determination	Resource	Rationale for Determination	Signature	Date
		affected to a degree that detailed analysis is required.		
NI	Fuels/Fire Management	<p>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 irrevocable 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 Monticello FO is estimated to account for approximately 1 oil and gas well and cause surface disturbance of approximately 10 acres over the next 10 year period.</p> <p>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.</p>	P. Plemons	8/2/16
NI	Geology / Mineral Resources/Energy Production	<p>The parcels occur within the Paradox Fold and Fault Belt as described in the "Reasonably Foreseeable Development Scenario (RFD) for Oil and Gas, 2005" prepared in 2005. Oil and gas resources in this area of the paradox basin occur primarily in the Buried Fault Block, Fractured Interbed and Porous Carbonate Buildup Plays as delineated by the U.S. Geological Survey (USGS). These plays have a high potential for occurrence of oil and gas. Under the proposed action, it is estimated that 1 oil and gas well would be drilled during the next 10 year period within the Monticello FO lease parcels. 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 irrevocable loss of these resources. Environmental impacts of the RFD were analyzed and are documented in the Monticello 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 remains valid. Therefore, Mineral Resources/Energy Production will not be analyzed in further detail in the EA.</p>	T. McDougall	
		<p>The underground injection of 'fracking waste water' in Utah presents little potential for inducing seismic activity. The majority of fracking waste 'fluids' are recycled and reused for future frack jobs. There have been no reported earthquakes in Utah that were suspected of being produced (induced) from injecting fluids into oil and gas disposal wells. (Personal communication from Brad Rogers, Utah Division of Oil, Gas and Mining ("UDOGM"), August 10, 2015). This fluid is predominantly produced water with a high salt brine content. As stated above in order to analyze and predict the potential for earthquakes associated with oil and gas disposal wells three kinds of data will be necessary: (1) seismic data: high-quality, real-time earthquake locations, which require dense seismic instrumentation; (2) geologic data: hydrological parameters, orientation and</p>	Mike McKinley	9/15/16

Determination	Resource	Rationale for Determination	Signature	Date
		<p>magnitude of the stress field, and the location and orientation of known faults; and (3) industrial data: injection rates and downhole pressures sampled and reported frequently. This data is not currently available, with the exception of industrial injection data reported to UDOGM, with which to do the analysis.</p>		
NI	Invasive Species/Noxious Weeds (EO 13112)	<p>Invasive plants could occur within these parcels. 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 Monticello FO is estimated to account for approximately 1 oil and gas well and cause surface disturbance of approximately 10 acres over the next 10 year period.</p> <p>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.</p> <p>Site specific oil and gas development proposals contain best management practices and/or conditions of approval to mitigate the potential for the establishment or spread of invasive species/noxious weeds. 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. As invasive/noxious weed mitigation will be included in future specific oil and gas APDs, it will not be affected to a degree that detailed analysis is required in the EA.</p>	Nephi Noyes	8/1/16
NI	Lands/Access	<p>Portions of the parcels are included within utility ROW corridors designated in the MFO RMP. Oil and gas leasing of lands within these ROW corridors is consistent with the MFO RMP management decisions. 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.</p> <p>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 or private 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.</p> <p>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.</p>	Brian Quigley	8/1/16
NI	Livestock Grazing	<p>The sale and issuance of an oil and gas lease is an administrative action that does not result in any surface</p>	Jed Carling	8/1/16

Determination	Resource	Rationale for Determination	Signature	Date
		<p>disturbance. However, the issuance of a lease is considered to be an irrevocable 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 Monticello FO is estimated to account for approximately 1 oil and gas well and cause surface disturbance of approximately 10 acres over the next 10 year period. This area of potential disturbance (10 acres) is a nominal amount, or 0.3%, of disturbance out of the 3,394 acres leased. This limited amount of disturbance would not appreciably influence overall available forage nor influence livestock grazing or distribution.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>For reasons listed above, there are no affects to livestock grazing to a degree that detailed analysis is required.</p>		
NI	Migratory Birds/Raptors	<p>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)</p> <p>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 irrevocable 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 Monticello FO is estimated to account for approximately 1 oil and gas well and cause surface disturbance of approximately 10 acres over the next 10 year period.</p> <p>The lessee/operator would submit an APD when oil and gas exploration and development activities are proposed.</p>	Mandy Scott	9/16/16

Determination	Resource	Rationale for Determination	Signature	Date
		<p>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.</p> <p>The area of the lease parcels is potential habitat for multiple species. The Monticello RMP includes management decisions to protect raptors, and migratory birds (Monticello RMP SSP-19, p. 138 and FWL-8, p. 153, FWL-1, p. 152). Best Management Practices for Raptors and their Habitat, which requires surveys and appropriate spatial and timing buffers, is a RMP requirement of all oil and gas development activities. For this reason, Utah lease notices 43 and 45 (Raptors and Migratory Birds) will be attached to all lease parcels.</p> <p>The application of these RMP stipulations and Raptor BMPs lease notices will adequately mitigate impacts to migratory birds and raptors. Migratory birds and raptors is not impacted to the degree that would require detailed analysis in the EA.</p>		
NI	Native American Religious Concerns	Refer to Moab FO ID team checklist.		
NI	Paleontology	<p>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 Monticello FO is estimated to account for approximately 1 oil and gas well and cause surface disturbance of approximately 10 acres over the next 10 year period.</p> <p>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.</p> <p>Some lease parcels with BLM surface contain areas of high potential for paleontological resources. The Monticello RMP contains management decisions to protect paleontological resources (Monticello RMP – PAL-10, p. 87). GIS was used to determine the potential fossil yield classification (PFYC) or each parcel. Lease notice UT-LN-72: High Potential Paleontological Resources will be attached to parcels 022, 023, and 024. This lease notice notifies the lessee that if they develop their lease, they may have to conduct paleontological surveys and mitigation.</p> <p>Attachment of this lease notice will adequately mitigate impacts to paleontological resources. Paleontology is not impacted to the degree that would require detailed analysis in the EA.</p>	Rebecca Hunt Foster	7/20/2016

Determination	Resource	Rationale for Determination	Signature	Date
NI	Rangeland Health Standards	<p>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 irrevocable 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 Monticello FO is estimated to account for approximately 1 oil and gas well and cause surface disturbance of approximately 10 acres over the next 10 year period.</p> <p>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.</p> <p>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.</p> <p>Thereby, for reasons listed above, Rangeland Health Standards as a whole are not affected to a degree that detailed analysis is required.</p>	Jed Carling	8/1/16
NI	Recreation	All parcels are in areas used for dispersed recreation such as hunting and hiking. This use is not intensive and recreation would not be impacted to the degree that would require detailed analysis in the EA.	Casey Worth	08/15/16
NI	Socio-Economics	Oil and gas leases on Federal lands contribute to local government revenues through mineral lease payments. In Utah, these payments consist of bonus lease payments, annual lease rentals and royalties based on production. Of the total amount of mineral lease payments remitted to BLM, approximately 50 per cent is returned to the state. The state then remits approximately one half of these payments back to the counties in the form of direct appropriations and grants and loans for specific projects funded by the Permanent Community Impact Board. Bonus payments are one-time payments to the Federal government for a leased parcel of BLM land for a ten-year period. These payments contribute to state and local economies because a proportion of the payments are disbursed to state and local governments. Annual rental payments - \$1.50 per acre for the first 5 years and \$2.00 per acre each subsequent year - would also contribute to state and local government revenues. Future production on the proposed leases, should any occur, could contribute additional revenues to local governments in the form of production royalties. The lease action, itself, however, produces no such royalties.	Cliff Giffen	8/10/16

Determination	Resource	Rationale for Determination	Signature	Date
		<p>Impacts from oil and gas leasing and development to socio-economics were analyzed in the Monticello and Moab PRMP/FEIS. This EA is tiered to and includes by reference the socio economic analysis contained in the RMP. The amount of lands available and offered for oil and gas leasing and the amount of new oil and gas development could impact socio-economic conditions, primarily in the form of increases or decreases in royalties and production taxes in proportion to the amount of oil and gas production (Monticello PRMP/FEIS p. 4-434). Under all alternatives, local employment resulting from oil and gas activity would continue to have a negligible impact on the San Juan county job base (Monticello PRMP/FEIS p. 4-434).</p> <p>Impacts to socio-economics will not be significantly different from those analyzed in the RMP and is not impacted to the degree that would require detailed analysis in the EA.</p>		
NI	Soils	<p>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 Monticello FO is estimated to account for approximately 1 oil and gas well and cause surface disturbance of approximately 10 acres over the next 10 year period. This area of potential disturbance (10 acres) is a nominal amount, or 0.3%, of disturbance out of the 3,394 acres leased. This limited amount of disturbance would not appreciably influence overall soil productivity.</p> <p>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.</p> <p>The Monticello RMP contains management decisions and stipulations to protect fragile soils on steep slopes and reduce erosion. Stipulations UT-S-98 and UT-S-106 and will be attached to parcels 022, 023, and 024.</p> <p>These lease stipulations, SOPs BMPs and COAs, including erosion control and reclamation standards, would adequately mitigate impacts to the soil resource. Soils resource is not impacted to the degree that would require detailed analysis in the EA.</p>	Cliff Giffen	8/10/16
NP	Threatened, Endangered or Candidate Plant Species	<p>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</p>	Mandy Scott	9/16/16

Determination	Resource	Rationale for Determination	Signature	Date
		<p>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 Monticello FO is estimated to account for approximately 1 oil and gas well and cause surface disturbance of approximately 10 acres over the next 10 year period.</p> <p>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 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.</p> <p>There are no known T&amp;E or Candidate plant species present on the parcels recommended for leasing. However, other sensitive species and/or habitat may occur. In addition to the “Threatened and Endangered Species Act Stipulation” (H-3120-1 – Competitive Leases ) attached to all lease parcels, lease notice UT-LN-49 (Utah Sensitive Species) will also be attached to all parcels.</p> <p>The stipulation and notice will ensure compliance with the ESA and will adequately mitigate impacts to T&amp;E species/habitat. T&amp;E plant species is not impacted to the degree that would require detailed analysis in the EA. USFWS consultation is ongoing.</p>		
NI	Threatened, Endangered or Candidate Animal Species	<p>In the interest of conservation of the Gunnison sage-grouse and proposed habitat, lease parcels found within Gunnison Sage-grouse habitat (all of parcel 83 and portions of parcels 48 and 84; approx. 560 acres) will be deferred from sale in accordance with WO IM No. 2014-100 which states “The BLM will continue to defer leasing in occupied habitat to avoid affecting decisions related to future management decisions.”</p> <p>At this time it cannot be determined if the RMP stipulations regarding Gunnison sage grouse would be adequate to address issues relating to the species or its habitat if listing were to occur. For these reasons, all parcels located within the USFWS proposed habitat are recommended for deferral and are not further analyzed in this EA.</p> <p>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 Monticello FO is estimated to account for approximately 1 oil and gas well and cause surface disturbance of</p>	Mandy Scott	9/16/16

Determination	Resource	Rationale for Determination	Signature	Date
		<p>approximately 10 acres over the next 10 year period.</p> <p>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 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.</p> <p>Threatened, Endangered, Candidate or otherwise Sensitive Animal Species or their habitat may occur in all parcels. In addition to the “Threatened and Endangered Species Act Stipulation” (WO IM No. 2002-174) that will be attached to all lease parcels, stipulations UT-S-275 (Bald Eagle), UT-S-288 (Mexican spotted owl); and lease notice UT-LN-25 (White-Tailed and Gunnison Prairie Dog) will be attached, as directed by the RMP. Other sensitive species may also be found on all leases, therefore, the Utah sensitive Species lease notice (UT-LN-49) will also be attached to all parcels.</p> <p>Lease stipulations, lease notices, SOPs, BMPs, and COAs developed during site specific NEPA analysis at the APD stage adequately mitigate impacts to T&amp;E species/habitat.</p> <p>T&amp;E animal species is not impacted to the degree that would require detailed analysis in the EA.</p> <p>USFWS consultation is ongoing</p>		
NI	Wastes (hazardous or solid)	<p>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 irrevocable 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 Monticello FO is estimated to account for approximately 1 oil and gas well and cause surface disturbance of approximately 10 acres over the next 10 year period.</p> <p>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.</p> <p>The construction, drilling, completion, testing, and production of an oil and gas well would produce waste products including drilling and completion fluids and</p>	Jeff Brown	7/18/16

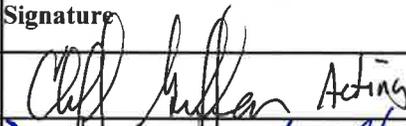
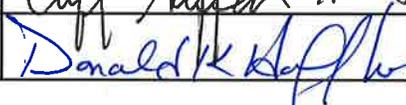
Determination	Resource	Rationale for Determination	Signature	Date
		<p>produced water. SOP, BMPs, and COAs will mitigate impacts and ensure proper containment and disposal of wastes generated from oil and gas activities. Wastes do not cause impacts to the degree that would require detailed analysis in the EA.</p>		
NI	Water Resources/Quality (drinking/surface/ground)	<p>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 Monticello FO is estimated to account for approximately 1 oil and gas well and cause surface disturbance of approximately 10 acres over the next 10 year period.</p> <p>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 water quality resources from oil and gas exploration and development activities.</p> <p>Standard operating procedures (Order 7 requirements for disposal of produced water and Order 2 requirements for drilling operations) to isolate and protect all usable ground water zones and site specific mitigation (including review and mitigation required by IM UT 2010-055) contained in an approved APD would be sufficient to protect useable ground water aquifers. Potential usable ground water aquifers would be cased and cemented. The casing would be pressure tested to ensure integrity prior to drilling out the surface casing shoe plug. Prior to any drilling activity, a rigorous engineering review will be conducted for any down hole activities, and appropriate regulatory and mitigation measures will be applied. Based on the above protection measures, water resources and associated water quality conditions are not impacted to the degree that would require detailed analysis in the EA.</p>	Mandy Scott	9/16/16
		<p>EPA stated in the draft June 2015, <i>Assessment of the Potential Impacts of Hydraulic Fracturing for Oil and Gas on Drinking Water Resources</i> (“EPA Draft” <a href="http://cfpub.epa.gov/ncea/hfstudy/recordisplay.cfm?deid=244651">http://cfpub.epa.gov/ncea/hfstudy/recordisplay.cfm?deid=244651</a>), that “We did not find evidence that these mechanisms have led to widespread, systemic impacts on drinking water resources in the United States....The number of identified cases where drinking water resources were impacted are small relative to the number of hydraulically fractured wells....There is insufficient pre- and post-hydraulic fracturing data on the quality of drinking water resources. This inhibits a determination of the frequency of impacts. Other limiting factors include the presence of other causes of contamination, the short duration of existing</p>	/s/Mike Mckinley	9/15/16

Determination	Resource	Rationale for Determination	Signature	Date
		<p>studies, and inaccessible information related to hydraulic fracturing activities.” See EPA Draft at ES-23. The potential impacts to surface and/or ground water from hydraulic fracturing activities has not been shown to reach a level requiring detailed analysis.</p> <p>Water resources may be present or high potential for water at some time of the year may occur on the parcels. Further examination and a thorough analysis would be included when an APD is received and before drilling is allowed.</p>		
NI	Wetlands/Riparian Zones	<p>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 irrevocable 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 Monticello FO is estimated to account for approximately 1 oil and gas well and cause surface disturbance of approximately 10 acres over the next 10 year period.</p> <p>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 riparian and wetland zones from oil and gas exploration and development activities.</p> <p>Standard terms of the lease agreements include the ability to move the well 200 meters, which would avoid most riparian areas in the Monticello Field Office.</p> <p>There are no wetlands or riparian zones located within any of the parcels. Thereby, for reasons listed above, riparian resource are not affected to a degree that detailed analysis is required in the EA.</p>	Jed Carling	8/1/16
NP	Wild and Scenic Rivers	There are no MFO RMP designated wild and scenic river segments within the parcels.	Casey Worth	08/15/16
NP	Wilderness/WSA	The parcels are not within any designated BLM Wilderness Study Areas (WSA) or designated wilderness areas.	Casey Worth	08/15/16
NI	Woodland / Forestry	<p>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 irrevocable 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 Monticello FO is estimated to account for approximately 1 oil and gas well and cause surface disturbance of approximately 10 acres over the next 10 year period.</p> <p>The lessee/operator would submit an APD when oil and</p>	Mandy Scott	9/16/16

Determination	Resource	Rationale for Determination	Signature	Date
		<p>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 woodlands/forestry from oil and gas exploration and development activities. Woodland/Forestry is not impacted to the degree that would require detailed analysis in the EA.</p>		
NI	Vegetation Excluding USFWS Designated Species	<p>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 irrevocable 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 Monticello FO is estimated to account for approximately 1 oil and gas well and cause surface disturbance of approximately 10 acres over the next 10 year period. This area of potential disturbance (10 acres) is a nominal amount, or 0.3%, of disturbance out of the 3,394 acres leased. This is a minor component of the vegetative community associated with sites, and would not have an appreciable affect to vegetative resources nor influence overall biotic integrity.</p> <p>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 vegetation from oil and gas exploration and development activities.</p> <p>Thereby, for reasons listed above, vegetation would not be affected to a degree that detailed analysis is required.</p>	Jed Carling	8/16/16
NI	Visual Resources	<p>The Monticello RMP designates the areas of the parcels as VRM Class III and IV with no special VRM stipulations required. The objective of VRM Class III is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate, meaning that oil and gas development activities may attract the attention of the casual observer but the change should not dominate the view (MFO RMP p. 3-175). The objective of VRM Class IV is to provide for management activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high.</p> <p>The construction, drilling, completion, testing, and</p>	Misti Haines	7/18/16

Determination	Resource	Rationale for Determination	Signature	Date
		production of an oil and gas well would cause impacts to visual resources. Visual resources would be analyzed in a future site specific NEPA analysis and modifications or mitigations measures may be required to the SUPO to meet VRM objectives. Visual Resources is not impacted to the degree that would require detailed analysis in the EA.		
NP	Wild Horses and Burros	There are no wild horses or burros in the Monticello FO area.	Cliff Giffen	8/10/16
NI	Areas with Wilderness Characteristics	All parcels were reviewed for areas with wilderness character. The parcels are not within any areas designated by the RMP/EIS to be managed for their wilderness characteristics.  Lands with wilderness characteristics have not been identified in any other Monticello Field Office proposed parcels. On-site visits to the proposed parcels verified existing knowledge regarding the resource conditions on the parcels.  Wilderness character is not impacted to the degree that would require detailed analysis in the EA.	Casey Worth	08/15/16

**FINAL REVIEW:**

Reviewer Title	Signature	Date	Comments
Environmental Coordinator	 Acting	9/16/16	
Authorized Officer		9/16/16	

## **Appendix D – Agency Participation (Stakeholders) Responses**

Reserved



## 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 / UT922

**MAY 11 2016**

RECEIVED  
MOAB FIELD OFFICE  
2016 MAY 16 PM 12:46

Nora Rasure  
Regional Forester  
U. S. Forest Service  
324 25<sup>th</sup> Street  
Ogden, Utah 84401

Re: February 2017 Competitive Oil and Gas Lease Sale

Dear Ms. Rasure:

A competitive oil and gas lease sale is scheduled for February 21, 2017, and the preliminary list of lands that will be considered for that sale is enclosed with this letter. There are no parcels on National Forest System lands on the preliminary list for this sale. However, we are sending you this list of lands to review in case the Forest Service has any concerns regarding potential impacts to resources managed by your agency.

The Bureau of Land Management (BLM) Canyon Country District Office will prepare an environmental assessment(s) (EA or EAs) for the enclosed list of lands and a draft of the EA(s) will be posted for a 30-day public comment period, which we are anticipating will occur September 15 to October 17, 2016. Any concerns your office may have with parcels included in the preliminary list of lands should be directed to the BLM Canyon Country District Office at 82 East Dogwood, Moab, UT 84532, with a courtesy copy to the attention of Sheri Wysong at BLM Utah State Office, 440 West 200 South, Suite 500, Salt Lake City, UT 84101, no later than August 1, 2016, so that your concerns may be addressed in the draft EA(s) that will be prepared for the February 2017 lease sale.

If members of your agency are interested in attending a site visit, please contact Doug Rowles at (435) 259-2145 or [drowles@blm.gov](mailto:drowles@blm.gov), for parcels within the Moab Field Office and Cliff Giffen at (435) 587-1524 or [cgiffen@blm.gov](mailto:cgiffen@blm.gov), for parcels within the Monticello Field Office within two weeks of the date of this letter.

If you have any questions, please contact Sheri Wysong, [swysong@blm.gov](mailto:swysong@blm.gov), at (801) 539-4067.

Sincerely,

A handwritten signature in black ink, appearing to read "K. Hoffman", with a long horizontal flourish extending to the right.

Kent Hoffman  
Deputy State Director,  
Division of Lands and Minerals

Enclosure:

1. Preliminary OG List of Lands

cc: Sharon Deuter, USDA – Forest Service, Centralized National Operations, 740 Simms Street, Golden, Colorado 80401

Kathryn Conant, USDA – Forest Service, Intermountain Region, Federal Building, 324 25<sup>th</sup> Street, Ogden, Utah 84401-2300

BLM Field Office Managers – Moab (UTY01) & Monticello (UTY02)



## 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 / UT922

**MAY 11 2016**

Kathleen Clarke, Director  
Public Lands Policy Coordination Office  
P.O. Box 141107  
Salt Lake City, Utah 84114-1107

Re: February 2017 Competitive Oil and Gas Lease Sale

Dear Ms. Clarke:

A competitive oil and gas lease sale is scheduled for February 21, 2017, and the preliminary list of lands that will be considered for that sale is enclosed with this letter. The Bureau of Land Management (BLM) Canyon Country District Office will prepare an environmental assessment(s) (EA or EAs) for the preliminary list of lands and a draft of the EA(s) will be posted for a 30-day public comment period, which we are anticipating will occur September 15 to October 17, 2016.

Please review the enclosed list of lands for potential concerns or conflicts. Any concerns your office may have with parcels included in the preliminary list of lands should be directed to the BLM Canyon Country District Office at 82 East Dogwood, Moab, UT 84532, with a courtesy copy to the attention of Sheri Wysong at BLM Utah State Office, 440 West 200 South, Suite 500, Salt Lake City, UT 84101, no later than August 1, 2016, so that your concerns may be addressed in the draft EA(s) that will be prepared for the February 2017 lease sale.

If members of your organization are interested in attending a site visit, please contact Doug Rowles at (435) 259-2145 or [drowles@blm.gov](mailto:drowles@blm.gov), for parcels within the Moab Field Office and Cliff Giffen at (435) 587-1524 or [cgiffen@blm.gov](mailto:cgiffen@blm.gov), for parcels within the Monticello Field Office within two weeks of the date of this letter.

Please note that the enclosed list of lands is preliminary and is for your internal use only. A Notice of Competitive Lease Sale (NCLS) will be posted on or before November 10, 2016, and will include the final list of parcels proposed for the February 21, 2017, lease sale. Your office will also be notified following the posting of the NCLS.

If you have any questions, please contact Sheri Wysong, [swysong@blm.gov](mailto:swysong@blm.gov), at (801) 539-4067.

Sincerely,

A handwritten signature in black ink, appearing to read "Kent Hoffman". The signature is stylized with a large initial "K" and a long horizontal flourish extending to the right.

Kent Hoffman  
Deputy State Director  
Division of Lands & Minerals

Enclosure:

1. Preliminary OG List of Lands

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



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 10, 2016

*Sent via email: [150porte@blm.gov](mailto:150porte@blm.gov)*

Lance Porter  
District Manager  
Bureau of Land Management  
Canyon Country District  
82 East Dogwood  
Moab, UT 84532

Subject: February 2017 Competitive Oil and Gas Lease Sale  
RDCC Project Number: 54022

Dear Mr. Porter:

The State of Utah appreciates the opportunity to review and comment on the proposed preliminary list of lands considered for sale for the February 2017 Competitive Oil and Gas Lease Sale located in San Juan County. The State strongly supports oil and gas leasing as important to the state's economy, while taking prudent steps to protect essential environmental values. In particular, we would like to see the February 2017 competitive lease sale move forward without the delays and ubiquitous parcel deferments which have plagued recent BLM lease sales. We do not have any specific comments at this time. We will provide specific technical comments to minimize impacts to wildlife species, as well as their habitats, prior to exploratory development, NEPA planning or any surface disturbance activities. Please notify our office at that time.

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,

A handwritten signature in black ink, appearing to read "Kathleen Clarke", with a long horizontal flourish extending to the right.

Kathleen Clarke  
Director

cc: Kent Hoffman, Deputy State Director Lands & Minerals



## 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 / UT922

**MAY 11 2016**

### Memorandum

To: National Park Service, Salt Lake City Office

From: Deputy State Director, Division of Lands and Minerals 

Subject: Review of Preliminary List of Parcels for February 2017 Competitive Oil and Gas Lease Sale

A competitive oil and gas lease sale is scheduled for February 21, 2017, and the preliminary list of lands that will be considered for that sale is attached to this memorandum. You are receiving the attached list of lands in order to provide your agency with an opportunity to identify any potential concerns with the preliminary list of lands that will be considered for the February 2017 lease sale at an initial stage in the lease sale process.

The Bureau of Land Management (BLM) Canyon Country District Office will prepare an environmental assessment(s) (EA or EAs) for the preliminary list of lands and a draft of the EA(s) will be posted for a 30-day public comment period, which we are anticipating will occur September 15 to October 17, 2016. Any concerns your office may have with parcels included in the preliminary list of lands should be directed to the BLM Canyon Country District Office at 82 East Dogwood, Moab, UT 84532, with a courtesy copy to the attention of Sheri Wysong at BLM Utah State Office, 440 West 200 South, Suite 500, Salt Lake City, UT 84101, no later than August 1, 2016, so that your concerns may be addressed in the draft EA(s) that will be prepared for the February 2017 lease sale.

If members of your organization are interested in attending a site visit, please contact Doug Rowles at (435) 259-2145 or [drowles@blm.gov](mailto:drowles@blm.gov), for parcels within the Moab Field Office and Cliff Giffen at (435) 587-1524 or [cgiffen@blm.gov](mailto:cgiffen@blm.gov), for parcels within the Monticello Field Office within two weeks of the date of this memo.

If you have any questions, please contact Sheri Wysong, [swysong@blm.gov](mailto:swysong@blm.gov), at (801) 539-4067.

#### Attachment:

1. Preliminary OG List of Lands

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



## 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 / UT922

**MAY 11 2016**

Bill James, Energy Development/NEPA Coordinator  
Utah Division of Wildlife Resources  
P.O. Box 146301  
Salt Lake City, Utah 84114-6301

Re: February 2017 Competitive Oil and Gas Lease Sale

Dear Mr. James:

A competitive oil and gas lease sale is scheduled for February 21, 2017, and the preliminary list of lands that will be considered for that sale is enclosed with this letter. The Bureau of Land Management (BLM) Canyon Country District Office will prepare an environmental assessment(s) (EA or EAs) for the preliminary list of lands and a draft of the EA(s) will be posted for a 30-day public comment period, which we are anticipating will occur September 15 to October 17, 2016.

The BLM must review the nominated lands in accordance with the Great Basin Region Record of Decision for Greater Sage-Grouse (GRSG) and the Utah Approved Resource Management Plan Amendment for GRSG (ROD/UARMP) which developed a new set of leasing allocations for BLM lands in GRSG habitat for oil and gas leasing and the need to develop a process to prioritize leasing and development within and outside of GRSG habitat<sup>1</sup>. Close coordination will be continued with the Utah Division of Wildlife Resources and U.S. Fish and Wildlife Services as BLM implements the ROD/UARMP. To assist your review, on May 3, 2016, you were sent an e-mail with Geographic Information System data depicting the enclosed list of lands. Any concerns your office may have with parcels included in the preliminary list of lands should be directed to the BLM Canyon Country District Office at 82 East Dogwood, Moab, UT 84532, with a courtesy copy to the attention of Sheri Wysong at BLM Utah State Office, 440 West 200 South, Suite 500, Salt Lake City, UT 84101, no later than August 1, 2016, so that your concerns may be addressed in the draft EA(s) that will be prepared for the February 2017 lease sale.

If member of your organization are interested in attending a site visit, please contact Doug Rowles at (435) 259-2145 or [drowles@blm.gov](mailto:drowles@blm.gov), for parcels within the Moab Field Office and

<sup>1</sup> [http://www.blm.gov/ut/st/en/prog/planning/SG\\_RMP\\_rev/ARMPA.html](http://www.blm.gov/ut/st/en/prog/planning/SG_RMP_rev/ARMPA.html)

Cliff Giffen at (435) 587-1524 or [cgiffen@blm.gov](mailto:cgiffen@blm.gov), for parcels within the Monticello Field Office within two weeks of the date of this letter.

Please note that the enclosed list of lands is preliminary and is for your internal use only. A Notice of Competitive Lease Sale (NCLS) will be posted on or before November 10, 2016, and will include the final list of parcels proposed for the February 21, 2017, lease sale. Your office will also be notified following the posting of the NCLS.

If you have any questions, please contact Sheri Wysong, [swysong@blm.gov](mailto:swysong@blm.gov), at (801) 539-4067.

Sincerely,

A handwritten signature in black ink, appearing to read "K. Hoffman", written over a horizontal line.

Kent Hoffman  
Deputy State Director  
Division of Lands & Minerals

Enclosure:

1. Preliminary OG List of Lands

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



## 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 / UT922

**MAY 11 2016**

LaVonne Garrison  
Assistant Director, Oil & Gas  
SITLA  
675 East 500 South, Suite 500  
Salt Lake City, Utah 84102

Re: February 2017 Competitive Oil and Gas Lease Sale

Dear Ms. Garrison:

A competitive oil and gas lease sale is scheduled for February 21, 2017, and the preliminary list of lands that will be considered for that sale is enclosed with this letter. The Bureau of Land Management (BLM) Canyon Country District Office will prepare an environmental assessment(s) (EA or EAs) for the preliminary list of lands and a draft of the EA(s) will be posted for a 30-day public comment period, which we are anticipating will occur September 15 to October 17, 2016.

Please review the enclosed list of lands for potential concerns or conflicts. Any concerns your office may have with parcels included in the preliminary list of lands should be directed to the BLM Canyon Country District Office at 82 East Dogwood, Moab, UT 84532, with a courtesy copy to the attention of Sheri Wysong at BLM Utah State Office, 440 West 200 South, Suite 500, Salt Lake City, UT 84101, no later than August 1, 2016, so that your concerns may be addressed in the draft EA(s) that will be prepared for the February 2017 lease sale.

If members of your organization are interested in attending a site visit, please contact Doug Rowles at (435) 259-2145 or [drowles@blm.gov](mailto:drowles@blm.gov), for parcels within the Moab Field Office and Cliff Giffen at (435) 587-1524 or [cgiffen@blm.gov](mailto:cgiffen@blm.gov), for parcels within the Monticello Field Office within two weeks of the date of this letter.

If you have any questions, please contact Sheri Wysong, [swysong@blm.gov](mailto:swysong@blm.gov), at (801) 539-4067.

Sincerely,

A handwritten signature in black ink, appearing to read "Kent Hoffman". The signature is stylized with a large initial "K" and a long, sweeping underline.

Kent Hoffman  
Deputy State Director  
Division of Lands & Minerals

Enclosure:

1. Preliminary OG List of Lands

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



## 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 / UT922

**MAY 11 2016**

#### Memorandum

To: Field Supervisor, U.S. Fish and Wildlife Service, Utah Field Office

From: Deputy State Director, Division of Lands and Minerals *[Signature]*

Subject: Review of Preliminary List of Parcels for February 2017 Competitive Oil and Gas Lease Sale

A competitive oil and gas lease sale is scheduled for February 21, 2017, and the preliminary list of lands that will be considered for that sale is attached to this memorandum. You are receiving the attached list of lands in order to provide your agency with an opportunity to identify any potential concerns with the preliminary list of lands that will be considered for the February 2017 lease sale at an initial stage in the lease sale process.

The Bureau of Land Management (BLM) Canyon Country District Office will prepare an environmental assessment(s) (EA or EAs) for the preliminary list of lands and a draft of the EA(s) will be posted for a 30-day public comment period, which we are anticipating will occur September 15 to October 17, 2016. Any concerns your office may have with parcels included in the preliminary list of lands should be directed to Robin Naeve of this office at [rnaeve@blm.gov](mailto:rnaeve@blm.gov), with a courtesy copy to Sheri Wysong at [swysong@blm.gov](mailto:swysong@blm.gov), no later than August 1, 2016, in order to allow adequate time for your concerns to be addressed in the draft EA(s). However, your office will be notified again following the posting of the draft EA(s) for public comment and you may elect to wait until that time to inform this office of concerns you may have with the lands under consideration for the February 2017 lease sale.

If members of your organization are interested in attending a site visit, please contact Doug Rowles at (435) 259-2145 or [drowles@blm.gov](mailto:drowles@blm.gov), for parcels within the Moab Field Office and Cliff Giffen at (435) 587-1524 or [cgiffen@blm.gov](mailto:cgiffen@blm.gov), for parcels within the Monticello Field Office within two weeks of the date of this memorandum.

If you have any questions, please contact Robin Naeve, as stated above, or Sheri Wysong, [swysong@blm.gov](mailto:swysong@blm.gov), at (801) 539-4067.

Attachment:

1. Preliminary OG List of Lands

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

# FEBRUARY 2017 PRELIMINARY OIL & GAS PARCEL LIST

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## **UT0217 – 012**

T. 28 S., R. 23 E., Salt Lake  
Secs. 13 and 14: All;  
Sec. 15: NE.  
1,436.34 Acres  
San Juan County, Utah  
Moab Field Office

## **UT0217 – 013**

T. 30 S., R. 23 E., Salt Lake  
Sec. 26: NESW.  
40.00 Acres  
San Juan County, Utah  
Monticello Field Office

## **UT0217 – 021**

T. 30 S., R. 24 E., Salt Lake  
Secs. 18, 19 and 20: All.  
1,910.70 Acres  
San Juan County, Utah  
Moab Field Office

## **UT0217 – 022**

T. 31 S., R. 24 E., Salt Lake  
Sec. 1: Lots 1-4, S2NE, SE;  
Sec. 11: All;  
Sec. 12: NENE, S2NE, W2NW, SENW, S2.  
1,618.12 Acres  
San Juan County, Utah  
Monticello Field Office

## **UT0217 – 023**

T. 31 S., R. 24 E., Salt Lake  
Sec. 4: All.  
655.72 Acres  
San Juan County, Utah  
Monticello Field Office

## FEBRUARY 2017 PRELIMINARY OIL & GAS PARCEL LIST

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**UT0217 – 024**

T. 31 S., R. 24 E., Salt Lake

Sec. 13: All;

Sec. 14: E2, N2NW;

Sec. 15: NENE.

1,080.00 Acres

San Juan County, Utah

Monticello Field Office



## United States Department of the Interior



BUREAU OF LAND MANAGEMENT  
Monticello Field Office  
P.O. Box 7  
Monticello, UT 84535

<http://www.blm.gov/utah/monticello>

IN REPLY REFER TO:  
(UTY-020)  
3100

San Juan County Commission  
P.O. Box 9  
Monticello, UT 84535

Dear Commissioners:

The Bureau of Land Management (BLM), Utah State Office (UTSO) has scheduled a competitive oil and gas lease sale for February 21, 2017, and the preliminary list and a map of lands to be considered for lease sale is enclosed with this letter. The BLM Canyon Country District Office will prepare an environmental assessment (EA) for the preliminary list of lands and the EA will be posted for a 30-day public comment period, which we anticipate will occur September 15 to October 17, 2016.

A total of 31 parcels containing 22,562.42 acres were nominated by members of the oil and gas industry for this sale. The UTSO removed 15,821.54 acres for various reasons including parcels located within Master Leasing Plan areas. The six parcels remaining on the preliminary list include two parcels of 3,347.04 acres within the Moab Field Office; and four parcels of 3,393.84 acres within the Monticello Field Office.

Any concerns you may have on the February 2017 lease sale should be directed to the BLM Monticello Field Office, P.O. Box 7, Monticello, UT 84535 no later than August 1, 2016, in order for the BLM to address your concerns prior to making a leasing recommendation.

If you are interested in attending a site visit, please contact Doug Rowles at (435) 259-2145 or [drowles@blm.gov](mailto:drowles@blm.gov) for parcels within the Moab Field Office and Cliff Giffen at (435) 587-1524 or [cgiffen@blm.gov](mailto:cgiffen@blm.gov) for parcels within the Monticello Field Office within two weeks of the date of this letter.

If you have any questions, please contact Cliff Giffen at (435) 587-1524 or by email at cgiffen@blm.gov.

Sincerely,

Donald K. Hoffheins  
Field Manager

Enclosure:

1. Preliminary OG List of Lands
2. Maps

cc: BLM Moab Field Office Manager

CGiffen;CGiffen:2016.06.02 OGLseSa 2017 San Juan County Commission Notification

# San Juan County



sanjuancounty.org

## SAN JUAN COUNTY PLANNING DEPARTMENT

July 18, 2016



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

RE: Proposed February 2017 Oil and Gas Lease Sale

Dear Don:

As noted in our comments on previous oil and gas lease sales, we are concerned with the large number of parcels that have been deferred from leasing. In the current proposed sale 31 parcels were nominated and 25 were deferred. Your letter explains that these deferrals were made for various reasons including parcels located within Master Leasing Plan areas. We would like to know the locations of these deferred parcels and the reason(s) for their deferral.

Any deferral has an impact on the potential tax revenue that could accrue to the County from lease sales and future assessment of exploration and production facilities. The majority of county tax revenue comes from centrally assessed properties of which oil and gas facilities are a major component.

We fully support the proposed lease sale of the 6 parcels remaining on the preliminary list. The proposed sale is consistent with County Master Plan mineral policy ("Achieve and maintain a continuing yield of mineral resources at the highest reasonably sustainable levels.") as well as H.B. 393, Energy Zone Amendments. This law established an Energy Zone in the eastern portion of the county where energy and mineral exploration and production are to be emphasized and expedited. The 6 parcels are within this Zone.

We look forward to seeing the information we have requested.

Sincerely,

Nick Sandberg  
Public Lands Coordinator/Planner

## **Appendix E – Public Participation**

Reserved



Bryant, Lisa <lbryant@blm.gov>

## Fwd: News Release - Scoping Period Open for February 2015 Canyon Country Oil and Gas Lease Sale

1 message

**Bryant, Lisa** <lbryant@blm.gov>

Tue, Jul 26, 2016 at 2:57 PM

To: Lisa Bryant <lbryant@blm.gov>

Bcc: Scott\_mckane@fox13now.com, chris.knight@argusmedia.com, Jim.magill@platts.com, abbybonell@iheartmedia.com, alexchadwick@me.com, Janeal <all.justice@sltrib.com>, amyjoi@desnews.com, apsalllakecity@ap.org, artcity@avpro.com, assignment.desk@ksl.com, bkomarek@cherrycreekradio.com, Brian Maffly <bmaffly@sltrib.com>, Bobby Magill <bobbymagill@gmail.com>, bpasssey@thespectrum.com, Carl Rich <carl@dixietoday.com>, carl@canyonmedia.net, carolyn@intelligencepress.com, cbrewer@heraldextra.com, cconover@heraldextra.com, Chad Booth <chad@thecountyseat.tv>, cityed@standard.net, comments@slweekly.com, community@kued.org, csmart@sltrib.com, curtis.ray@abc4.com, derek@thecountyseat.tv, dhnews@heraldextra.com, Dixie@kanab.net, dougb@midutahradio.com, editor@benewsjournal.com, editor@ecprogress.com, Moab Sun News <editor@moabsunnews.com>, Lisa Church <editor@moabtimes.com>, editor@nephitimesnews.com, Nan Noaker <editor@parkrecord.com>, editor@sunad.com, editor@ubmedia.biz, editor@valleyjournals.com, editor@vernal.com, editor@wasatchwave.com, editorial@eenews.net, Emery Telcom <etv10news@gmail.com>, fm90@kuer.org, Westminster College Forum Media <forumeditor@westminstercollege.edu>, info@kjzz.com, Jack Healy <jackhealynyt@gmail.com>, janet@kxaz.com, jbaird@sltrib.com, jbarrus@tooeletranscript.com, jelstad@kued.org, jhollenhorst@ksl.com, jhenrie@tooeletranscript.com, Jim Magill <jim\_magill@platts.com>, Joyce Kuzmanic <jkuzmanic@stgnews.com>, journal@suu.edu, leadernews@citlink.net, leepulaski@lakepowellchronicle.com, letters@byu.edu, "Whitehurst, Lindsay" <lwhitehurst@ap.org>, magazine@saltlakemagazine.com, maria@netutah.com, Rudy Herndon <moabsunnewseditor@gmail.com>, moabzephyr@yahoo.com, mrichards@ksl.com, ncarlisle@sltrib.com, news@abc4.com, Bob Snell <news@dvtv.com>, Fox Thirteen <news@fox13now.com>, news@gtelco.net, news@kcsq.com, news@kmtiradio.com, news@kuer.org, Sanpete Messenger <news@sanpetemessenger.com>, Kutv Newsdesk <newsdesk@kutv2.com>, newsjournal@benewsjournal.com, newsroom@sltrib.com, press@chronicle.utah.edu, program-director@kzmu.org, Phil Taylor <ptaylor@eenews.net>, radio.news@ksl.com, reapered@richfieldreaper.com, mcDonough@kcpw.org, roughnecknews@yahoo.com, sjnews@frontiernet.net, tbp@tooeletranscript.com, tlees@thespectrum.com, ajohnson@westernenergyalliance.org, jeanturner2000@yahoo.com, matt.hargreaves@fbfs.com, randyclower@ymail.com, Dan Frosch <dan.frosch@gmail.com>, Page Arizona <lmcmichael@cityofpage.org>, Brian Brinkerhoff <radio@backcountrynetwork.com>, Morgan County News <news@morgannews.com>, rappleeye@utah.gov, news@koal.net, Heidi Redd <cowgirlheidi@hotmail.com>, rcaging@allwest.net, williegrayeyes@yahoo.com, steve.burr@usu.edu, jmtanner@hotmail.com, chad.c.baker@riotinto.com, callee.butcher@kemrivergas.com, cimarron@gropromotions.com, jallison@byu.edu, dan@garkaneenergy.com, sslater@hawkwatch.org, crobbson@theensigngroup.com, Troy Forrest <tforrest@utah.gov>, Jenna Whitlock <jwhitloc@blm.gov>, Kent Hoffman <khoffman@blm.gov>, Roger Bankert <rbankert@blm.gov>, Lindsey Nelson <lanelson@blm.gov>, Pamela Jarnecke <pjarnecke@blm.gov>, Aaron Curtis <acurtis@blm.gov>, Megan Crandall <mcrandal@blm.gov>, Lola Bird <lbird@blm.gov>, Jeanette Shackelford <jshackelford@blm.gov>, Kevin Oliver <koliver@blm.gov>, Michael Nelson <mnelson@blm.gov>, Michael Gates <mgates@blm.gov>, Lisa Reid <lreid@blm.gov>, Sue Fivecoat <sfivecoa@blm.gov>, Elizabeth Burghard <eburghar@blm.gov>, Wayne Wetzel <wwetzel@blm.gov>, Harry Barber <hbarber@blm.gov>, Larry Crutchfield <lcrutchf@blm.gov>, Lance Porter <l50porte@blm.gov>, Beth Ransel <bransel@blm.gov>, Brent Northrup <bnorthup@blm.gov>, Donald Hoffheins <dhoffhei@blm.gov>, Brian Quigley <bquigley@blm.gov>, Ahmed Mohsen <amohsen@blm.gov>, Cynthia Staszak <cstaszak@blm.gov>, Heather Whitman <hwhitman@blm.gov>, Gerald Kenczka <jkenczka@blm.gov>, Jason Moore <jdmoore@blm.gov>, Ryan Sutherland <rrsutherland@blm.gov>, Christian Venhuizen <cvenhuizen@blm.gov>, Ester McCullough <emccullo@blm.gov>, Gail and David <gailanddavid@q.com>, Sonja Horoshko <artjuicestudio@gmail.co>, Cortez Newsroom <tstephens@cortezjournal.com>

Please share this with your readers, viewers, and listeners. Thank you.

Lisa Bryant  
 Public Affairs Specialist  
 BLM - Green River and Canyon Country Districts  
 435 259-2187 (office)  
 435 260-7003 (cell)  
[lbryant@blm.gov](mailto:lbryant@blm.gov)

FACEBOOK: [www.facebook.com/blmutah](http://www.facebook.com/blmutah)

FLICKR: <https://www.flickr.com/photos/blmutah>

TWITTER: <https://twitter.com/blmutah>

# News Release

FOR IMMEDIATE RELEASE

Media Contact: Lisa Bryant, (435)259-2187

July 26, 2016

## **BLM Seeks Public Input on Proposed February 2017 Competitive Oil and Gas Lease Sale Public Scoping to Begin**

**Moab, Utah**—The Bureau of Land Management (BLM), Canyon Country District is seeking input on parcels nominated for the February 2017 Competitive Oil and Gas Lease Sale. The BLM will use any comments received as it prepares an environmental assessment analyzing potential impacts associated with leasing the nominated parcels. The public is encouraged to provide comments that identify issues or concerns that will influence the scope of the analysis, the selection of parcels for the sale, or the development process for the environmental assessment.

The proposed parcel list and maps are available for review at both the Monticello and Moab Field Offices at the addresses below. The project information can also be accessed, and comments submitted electronically, using the BLM ePlanning website at: <http://go.usa.gov/xcQCh>

Written comments will be accepted until Aug. 25, 2016. Please note that the most useful comments are those that identify issues relevant to the proposed action. Comments which contain only opinions or preferences will not receive a formal response but will be considered as appropriate as part of the lease sale planning process. Please reference the "Canyon Country District February 2017 Competitive Oil and Gas Lease Sale" when submitting written comments.

Written comments may be mailed to either of the following addresses:

Bureau of Land Management	Bureau of Land Management
Moab Field Office	Monticello Field Office
82 East Dogwood	365 North Main Street
Moab, Utah 84532	Monticello, Utah 84535

Before including an address, phone number, email address, or other personal identifying information in any comments, please be aware that the entire comment—including personal identifying information—may be made publicly available at any time. Requests to withhold personal identifying information from public review can be submitted, but the BLM cannot guarantee that it will be able to do so. All submissions from organizations and businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be available for public inspection in their entirety.

In addition to NEPA, individuals can participate in the proposed project's National Historic Preservation Act Section 106 process. To provide input in this process, please submit requests to the BLM Moab Field Office explaining your interest in the project and/or concerns with potential effects related to historic properties from the project.

For additional information, please contact Cliff Giffen at (435)587-1524. Persons who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1-800-877-8339 to leave a message or question for the above individual. The FIRS is available 24 hours a day, seven days a week. Replies are provided during normal business hours.

The BLM manages more than 245 million acres of public land, the most of any Federal agency. This land, known as the National System of Public Lands, is primarily located in 12 Western states, including Alaska. The BLM also administers 700 million acres of sub-surface mineral estate throughout the nation. The BLM's mission is to sustain the health, diversity, and productivity of America's public lands for the use and enjoyment of present and future generations. In Fiscal Year 2015, the BLM generated \$4.1 billion in receipts from activities occurring on public lands.

-BLM-

Follow us on Twitter [@BLMUtah](#)



**Feb 2017 CCYD Lease Sale Scoping PR 7-26-16.docx**  
93K

## **Appendix F – Native American/SHPO/OSNHT Consultation**



## United States Department of the Interior



BUREAU OF LAND MANAGEMENT  
Canyon Country District  
82 East Dogwood  
Moab, Utah 84532  
<http://www.blm.gov/ut/st/en/fo/moab.html>

In Reply Refer To:  
3120/8111 (LLUTY010)

CERTIFIED MAIL RETURN RECEIPT REQUESTED  
Certification No: [REDACTED]

JUL 28 2016



Dear [REDACTED]:

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 2017 Competitive Oil and Gas Lease Sale. The BLM is preparing an Environmental Assessment (EA) (DOI-BLM-UT-Y020-2016-0042-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.

The project information can also be accessed, and comments submitted electronically, using the BLM ePlanning website: <http://go.usa.gov/xcQCh>. 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

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 August 30, 2016. Comments should be sent before the closing of the public comment period for the draft EA on October 17, 2016. Please confirm your desire to become a consulting party to Don Montoya at the BLM Moab Field Office as listed above.

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.

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

Sincerely,



Beth Ransel  
Acting District Manager

**Native American Consultation List**

<b>Title</b>	<b>First Name</b>	<b>Last Name</b>	<b>Company Name</b>	<b>Address Line 1</b>	<b>City</b>	<b>State</b>	<b>Zip</b>
Director	Leigh	Kuwanwisiwma	Hopi Tribe	PO Box 123	Kykotsmovi	AZ	86039
Governor	Joshua	Madalena	Jemez Pueblo	P.O. Box 100	Jemez Pueblo	NM	87024
Cultural Specialist	Ora	Marek-Martinez	Navajo Nation	PO Box 4950-	Window Rock	AZ	86515
Chairman	Gary	Lafferty	Paiute Tribe	440 North Paiute Drive	Cedar City	UT	84720
Cultural Resource Director	Dorena	Martineau	Paiute Tribe	440 North Paiute Drive	Cedar City	UT	84720
Chairman	Jimmy R.	Newton	Southern Ute Tribe	PO Box 737	Ignacio	CO	81137
NAGPRA Coordinator	Alden	Naranjo	Southern Ute Tribe	PO Box 737	Ignacio	CO	81137
Chairman	Gordon	Howell	Ute Indian Tribe	PO Box 190	Fort Duchesne	UT	84026
Director	Betsy	Chapoose	Ute Indian Tribe	PO Box 190	Fort Duchesne	UT	84026
Chairman	Manuel	Heart	Ute Mountain Ute Tribe	PO Box JJ	Towaoc	CO	81334
Tribal Historic Preservation Officer	Terry	Knight	Ute Mountain Ute Tribe	PO Box JJ	Towaoc	CO	81334
Council Member	Malcolm	Lehi	White Mesa Ute Tribe	PO Box 7096	Blanding	UT	84511
Director	Kurt	Dongoske	Zuni Pueblo	PO Box 339	Zuni	NM	87327
Governor	Arlen	Quetawki Sr.	Zuni Pueblo	PO Box 339	Zuni	NM	87327



## United States Department of the Interior

BUREAU OF LAND MANAGEMENT  
Monticello Field Office  
P.O. Box 7  
Monticello, UT 84535  
<http://www.blm.gov/utah/monticello>



IN REPLY REFER TO:  
(UTY-020)  
8100  
3100

August 9, 2016

CERTIFIED MAIL-RETURN RECEIPT REQUESTED  
Certification # 7014 2120 0003 2777 1873

Casey Duma, Cultural Resources  
Pueblo of Laguna  
PO Box 194  
Laguna Pueblo, NM 87026

RE: Canyon Country District 2017 Oil and Gas Lease Sale

Dear Mr. Duma:

The Bureau of Land Management (BLM) Canyon Country District (CCDO), in accordance with the National Historic Preservation Act of 1966 (as amended) Section 101(d), desires to initiate Native American consultation on parcels nominated for the February 2017 Competitive Oil and Gas Lease Sale. The BLM is preparing an Environmental Assessment (EA) (DOI-BLM-UT-Y020-2016-0042-EA) to analyze potential impacts associated with leasing the nominated parcels.

The project information can be accessed using the BLM ePlanning website:

<http://go.usa.gov/xcQCh>

The proposed undertaking is also available for review at the Moab and Monticello Field Offices at the addresses below.

BLM Moab Field Office  
82 East Dogwood Ave.  
Moab, Utah 84532

BLM Monticello Field Office  
365 N. Main  
Monticello, UT 84535

The CCDO is conducting an 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. 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 and a predictive model analysis of site density. The BLM will continue consultation to resolve potential adverse effects to historic properties.

We are aware that there may be culturally sensitive locations within the parcels and, in accordance with the National Historic Preservation Act of 1966 (as amended) Section 101(d), we respectfully inquire if there are any comments or special concerns. Please advise us whether there are any individuals, such as traditional cultural leaders or religious practitioners, who the BLM should contact in regards to these matters. Please provide this information by September 9, 2016.

In addition, the EA will be available for a public review and comment period beginning September 15 and ending on October 17, 2016.

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

Sincerely,

Donald K. Hoffheins  
Monticello Field Manager

CGiffen;Cgiffen; 2016.08.09 NaAmConMtFO.docx

Jerome Lucero, Governor  
Pueblo of Zia  
135 Capital Square Drive  
Zia Pueblo, NM 87053

Virgil Saow, Governor  
Pueblo of Laguna  
PO Box 194  
Laguna Pueblo, NM 87026

Celestino Gachupin,  
Cultural Resources Director  
Pueblo of Zia  
135 Capital Square Drive  
Zia Pueblo, NM 87053

Casey Duma, Cultural Resources  
Pueblo of Laguna  
PO Box 194  
Laguna Pueblo, NM 87026

J. Michael Chavaria, Governor  
Pueblo of Santa Clara  
PO Box 580  
Española, NM 87532

Kurt Riley, Governor  
Pueblo of Acoma  
Cultural Preservation Office  
PO Box 309  
Acoma, NM 87034

Ben Chavaria,  
Office of Cultural Preservation  
Pueblo of Santa Clara  
PO Box 580  
Española, NM 87327

Damian Garcia  
Cultural Preservation Office  
Pueblo of Acoma  
PO Box 309  
Acoma, NM 87034



## United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Canyon Country District

82 East Dogwood

Moab, Utah 84532

<http://www.blm.gov/ut/st/en/fo/moab.html>



In Reply Refer To:  
3120/8111 (LLUTY010)

CERTIFIED MAIL RETURN RECEIPT REQUESTED

Certification No: 7015 1660 0000 2201 7233

John Hiscock, Association Manager  
Old Spanish Trail Association  
P.O. Box 324  
Kanab, UT 84741

Dear Association Manager Hiscock:

At this time The Bureau of Land Management (BLM) Canyon Country District (CCYD) wishes to initiate National Trails System Act consultation on parcels nominated for the February 2017 Competitive Oil and Gas Lease Sale. The BLM is preparing an Environmental Assessment (EA) ([DOI-BLM-UT-Y020-2016-0042-EA](#)) to analyze potential impacts associated with leasing the nominated parcels.

The CCYD is seeking input on parcels nominated for the February 2017 Competitive Oil and Gas Lease Sale. BLM will use these comments in preparing an environmental assessment that analyzes potential impacts associated with leasing the nominated parcels. The public is encouraged to provide comments that identify issues or concerns that will influence the scope of the analysis and guide the development process for the environmental assessment.

The project information can also be accessed, and comments submitted electronically, using the BLM ePlanning website: <http://go.usa.gov/xcQCh>. 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

The CCYD archaeologist has conducted an initial analysis to identify cultural sites within the proposed lease parcel boundaries. This analysis shows that segments of the congressionally designated Old Spanish National Historic Trail (OSNHT) are within three of the proposed lease parcels (Parcels 21, 23, 24). Enclosed is a map showing the lease parcels and location of the OSNHT.

The BLM would like to invite the Old Spanish Trail Association to participate in the consultation process to identify and evaluate the effects of the lease sale on the OSNHT.

The draft EA and draft cultural report will be available on August 30, 2016. Comments should be sent before the closing of the public comment period for the draft EA on October 17, 2016.

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

Sincerely,

Beth Ransel  
Acting District Manager

Enclosure

**Old Spanish National Historic Trail Consultation list:**

John Hiscock, Association Manager  
Old Spanish Trail Association  
P.O. Box 324  
Kanab, UT 84741

Rob Sweeten  
Old Spanish National Historic Trail Administrator  
Bureau of Land Management  
440 West 200 South, Suite 500  
Salt Lake City, UT 84101

Jill Jensen, Trails Administrator  
National Park Service  
324 South State Street  
Salt Lake City, UT 84111



# United States Department of the Interior



*Blum  
7/28/16*

BUREAU OF LAND MANAGEMENT  
Canyon Country District  
82 East Dogwood  
Moab, Utah 84532  
<http://www.blm.gov/ut/st/en/fo/moab.html>

In Reply Refer To:  
3120 /8111 (LLUTY010)

CERTIFIED MAIL RETURN RECEIPT REQUESTED  
Certification No: 7015 1660 0000 2201 6977

JUL 28 2016

Chris Merritt  
Deputy State Historic Preservation Officer  
Utah State Historical Society  
300 South Rio Grande  
Salt Lake City, Utah 84101-1182

Dear Chris:

In accordance with Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations (36 CFR Part 800), The Bureau of Land Management (BLM) Canyon Country District (CCYD) wishes to initiate it's consultation process with the Utah State Historic Preservation Office (SHPO).

Part I Project Description

Counties: Grand and San Juan

In February 2017, the Bureau of Land Management Utah State Office (BLM) proposes to auction leases for six parcels in the CCYD, totaling 6741 acres, for oil and gas development within the CCYD. The lease sale has the potential to cause effects to historic properties by obligating the BLM to allow some oil and gas development within a leased parcel under most circumstances. Therefore, the lease sale has the potential to effect historic properties and is an undertaking defined in 36 CFR 800.16 (y).

The CCYD has prepared an initial Cultural Resource Analysis to analyze the potential effects this undertaking may have on historic properties. The goal of this analysis and associated consultation is 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.

The six parcels are listed in Table 1. The proposed Area of Potential Effect (APE) for the February 2017 Oil and Gas lease sale is the boundary of each proposed lease parcel. The analysis will consist of an infield reconnaissance visit to each parcel, a records review, GIS site density analysis, and a GIS Site Density Probability Model analysis of each parcel within the proposed lease sale.

*Office 7/27/16*

*7-27-16*

*11/27/16*

<b>PARCEL ID</b>	<b>Area of Potential Effect (Acreage)</b>	<b>COUNTY</b>	<b>FIELD OFFICE</b>
UT0216 – 012	1,436.34	San Juan	Moab
UT0216– 013	40	San Juan	Monticello
UT0216 – 021	1,910.70	San Juan	Monticello
UT0216 – 022	1,618.12	San Juan	Moab
UT0216 – 023	655.72	San Juan	Monticello
UT0216 – 024	1,080.00	San Juan	Monticello
<b>Total APE</b>	<b>6740.88</b>		

## **Part II. Consultation**

A letter inviting the tribes to participate in consultation of the proposed lease sale will be sent to 16 representatives of 11 Native American tribes that claim cultural affiliation to the area. The tribes include the Hopi Tribe, Jemez Pueblo, Navajo Nation, Paiute Indian Tribe of Utah, Southern Ute Tribe, Northern Ute Tribe, Ute Mountain Ute Tribe, White Mesa Ute Tribe, Zuni Pueblo, Laguna Pueblo, and the Santa Clara Pueblo on July 27, 2016.

The CCYD will also send consultation letters regarding effects to the Old Spanish National Historic Trail (OSNHT) to the Old Spanish Trail Association, the BLM OSNHT Administrator, and the National Park Service National Trails Intermountain Region. Consultation meetings will be held to determine the effects that leasing will have on the designated and contributing segments of the OSNHT for National Historic Preservation Act determinations of effect and National Trails Act consideration for impacts to the OSNHT. Effects of the undertaking on the OSNHT will also be addressed as part of the National Environmental Policy Act compliance for the project.

## **Part III. Findings**

The CCYD archaeologist completed an initial literature review and GIS analysis to identify previous inventories conducted and sites located within the six parcels. In the parcels BLM cultural resource specialists identified previous cultural resource inventories and cultural sites in the parcels.

Parcel UT217-012 includes 12 sites that need to be analyzed for eligibility to the National Register of Historic Places (NRHP). Parcel UT217-021 includes 29 sites that need to be analyzed for eligibility to NRHP as well as segments of the OSNHT that need analysis under the National Historic Trails Act. Parcel UT217-13 does not have any recorded sites that need to be analyzed. Parcel 23 has seven identified sites as well as contributing segments of the OSNHT. Parcel 22 has two recorded sites in the parcel and no segments of the OSNHT. Parcel 24 has four recorded sites and has an OSNHT segment running through it. Enclosed are GIS maps illustrating cultural resource inventories and recorded sites per the CURES database.

Based on input from SHPO, Native American tribes, and consulting parties the BLM will attach stipulations and lease notices that require protective measures for sites as well as maintaining integrity of setting, feeling, and association including visual and auditory setting of resources.

Setting, feeling, and association are important aspects of integrity for the OSNHT. The stipulation will require the lessee to site operations outside areas of concern for high site densities and the OSNHT.

**Part IV. Determination of Effects**

The BLM will attach stipulations which will alter the undertaking such that leasing of the parcels should not adversely affect historic properties. Additionally, a Cultural Resource Intensive Records Review and Report will be provided to demonstrate which of the six parcels being offered in the lease sale may be affected. The analysis will include site eligibility, site density, and if leased what reasonable development could occur without adverse effects to historic properties. Upon future analysis and consultation with SHPO and consulting parties, the BLM, will, make a future determination of effect” [36 CFR 800.5 (b)] for the February 2017 Oil and Gas Lease Sale.

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

Sincerely,

Beth Ransel  
Acting District Manager

Enclosure

## Appendix G – Deferred Parcel List

### List of Lands Recommended for Deferral and Justification

Six (6) lease parcels (approximately 6,741 acres) were originally included on the preliminary list of parcels proposed for inclusion in the February 2017 Competitive Oil and Gas Lease Sale.

Under Alternative A; Proposed Action – Offer All Six Parcels for Leasing, no parcels are deferred.

Under Alternative B – Offer Four Parcels for Lease; Defer Two Parcels, all of two (2) parcels, in total approximately 2,566 acres, are recommended for deferral.

The following table depicts the parcels and acreage recommended for deferral at the February 2017 lease sale.

Parcel #	Acreage Deferred	Deferral Reason
21	1,910.70	Old Spanish National Historic Trail
023	655.72	Old Spanish National Historic Trail
Total Acreage Recommended for Deferral	2,566.42	