

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

**Environmental Analysis of 195 Oil and Gas Leases from May 2015-March 2019 Lease Sales
DOI-BLM-UT-0000-2025-0004-EA
Uintah County, Utah**

September 2025



I have considered the factors mandated by the National Environmental Policy Act (NEPA). This environmental assessment represents the Bureau of Land Management's (BLM's) good-faith effort to fulfill NEPA's requirements by prioritizing documentation of the most important relevant considerations within the statutorily mandated page limits and timeline. This prioritization reflects the BLM's expert judgment; and any considerations addressed briefly or left unaddressed are, in the BLM's judgment, comparatively non-substantive and would not meaningfully inform the BLM's consideration of environmental effects and the decision to be made. The EA is substantially complete, considers the factors mandated by NEPA, and, in my judgment, contains analysis adequate to inform the BLM's decision regarding the proposed action.

Responsible Official: _____ Date: _____

Christina Price, Deputy State Director

BLM Utah State Office
440 West 200 South, Suite 500
Salt Lake City, Utah 84101

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CHAPTER 1. INTRODUCTION

1.1. BACKGROUND

The Bureau of Land Management (BLM) is preparing this environmental assessment (EA) in compliance with the National Environmental Policy Act (NEPA) to re-examine the potential impacts associated with the development of 195¹ leases that were previously issued following 11 lease sales held in Utah between 2015 to 2019 (totaling 239,923.42 acres) in response to legal challenges discussed in Section 1.2. Of the 195 leases, 62 are currently suspended. The 195 leases are located in 13 counties throughout 7 Field Offices (FOs). See Table 46 and Appendix C for more detailed lists. Table 1 shows the total number of leases in each FO. Maps of the leases are contained in Appendix A. Appendix C contains additional supporting information related to Chapter 1.

Table 1. Number of Leases by Field Office and County

Field Office	Counties	Number of Leases	Total Acres
Fillmore	Juab	8	13,722.51
Moab	Grand	16	21,085.34
	San Juan	5	2,061.48
Monticello	San Juan	5	8,330.90
Price	Carbon	4	8,379.58
	Emery	4	5,545.38
Richfield	Sanpete	2	2,539.36
	Sevier	10	9,605.02
	Wayne	2	3,084.75
Salt Lake	Rich	1	400.00
	Summit	2	1,637.81
Vernal	Daggett	2	2,949.48
	Duchesne	13	8,333.91
	Uintah	121	152,247.90
TOTAL		195	239,923.42

1.2. RELATED LITIGATION

Several lawsuits have challenged BLM leasing decisions associated with the leases considered in this EA, as well as leases in other states which are not considered in this EA. The 195 leases were considered in 13 EAs and 3 DNAs prior to being offered and issued following 11 lease sales between 2015 to 2019. All 195 leases and corresponding decisions to offer and issue the leases have been challenged in one or more of the following lawsuits. See Appendix C.2 for a summary of each lawsuit.

- *WildEarth Guardians v. Haaland* (D.D.C. No. 16-cv-01724)
- *WildEarth Guardians v. Haaland* (D.D.C. No. 20-cv-0056)
- *WildEarth Guardians v. Haaland* (D.D.C. No. 21-cv-0175)
- *Western Watersheds Project et al. v. Burgum* (D. Idaho No. 18-cv-00187)

¹ Twelve of these leases have terminated but are within the two-year time frame to request a reinstatement (UTU91058, UTU91060, UTU91945, UTU92487, UTU92765, UTU92766, UTU93882, UTU93979, UTU93980, UTU93981, UTU93982, and UTU94135).

- *Rocky Mountain Wild et al. v. Bernhardt* (D. Utah No. 19-cv-00929)
- *Southern Utah Wilderness Alliance v. U.S. Dep’t of Interior* (D. Utah No. 23-cv-00804)

1.3. PURPOSE AND NEED

The purpose for this action is driven by BLM’s responsibility under the Mineral Leasing Act of 1920, as amended, is to promote the exploration and development of oil and gas on the public domain consistent with the rules and regulations prescribed by the Secretary of the Interior, and with the Federal Land Policy and Management Act (FLMPA), NEPA, and other applicable laws, regulations, and policies. The need for this action is to review and, as appropriate, provide additional analysis consistent with the court decisions in the *WildEarth Guardians* cases, and to comply with the March 2022 settlement agreements and other litigation. This EA provides additional analyses beyond the original NEPA documents for the lease sales. Specifically, this analysis incorporates pertinent new information and ensures consistency with recent court decisions, Executive and Secretarial Orders, and departmental policy.

1.4. DECISION TO BE MADE

Based on the analysis in this EA, for each of the 195 leases, the BLM authorized officer will decide whether to affirm the BLM’s original leasing decisions with stipulations from the approved land use plans. The BLM may issue Findings of No New Significant Impact (FONNSIs) if no new significant impacts are identified. The BLM intends to issue a separate decision for each lease sale based on the information provided here.

1.5. BLM LAND USE PLAN CONFORMANCE

The alternatives described in Chapter 2 are in conformance with the governing land use plans, as amended. See Appendix C.4 for additional supporting information.

1.6. SCOPING AND ISSUES

The original lease sales NEPA documents were subject to public review. Beginning on June 16, 2025, the BLM interdisciplinary team (IDT), composed of resources specialists, conducted internal scoping to identify issues, potential alternatives, and data needs by reviewing the leases within the context of the applicable land use plans under the NEPA framework. Weekly meetings were held with IDT members during the lease review process. The IDT met from July 14 to July 18, 2025, to work cooperatively to draft the initial EA. In addition, other resource-specific meetings with resource specialists were held to aid in refining issues related to the leases.

The issues analyzed in detail are in EA Section 3.5. Other issues considered are in Appendix E.2.

Through internal scoping, the following issues were identified for detailed analysis in this EA:

- What quantities and types of air pollutants would be produced from potential development of the leases? How would air pollutant emissions affect air quality and air quality related values?
- How would potential development of the leases contribute to greenhouse gas (GHG) emissions at multiple scales?

- How would potential development of the leases impact greater sage-grouse and its habitat within PHMA and GHMA in population areas that overlap with the leases?
- How would potential development of the leases affect occupied and modeled suitable habitat for the two listed Uinta Basin *Sclerocactus* species?
- How would potential development of the leases affect the Level 1 and Level 2 core conservation areas established for the listed Uinta Basin *Sclerocactus* species?
- How would potential development of the leases affect modeled suitable and occupied habitat for shrubby-reed mustard?
- How would potential development of the leases affect modeled suitable and occupied habitat for Graham's penstemon?
- How would potential development of the leases affect modeled suitable and occupied habitat for White River penstemon?
- How would potential development of the leases affect conservation areas established for Graham's and White River penstemon?

An additional 27 issues were identified, considered, and analyzed in brief (AIB) during review of the Proposed Action. These issues, and rationale for why they were not analyzed in detail, are presented in Appendix E.2.

1.7. PUBLIC COMMENT PERIOD

BLM provided opportunities for public participation during development of the Resource Management Plans (RMPs) and again prior to each of the 11 lease sales. In addition, the BLM sought public comment on a draft supplemental EA that analyzed GHG emissions resulting from lease sales across all seven states involved in the *WildEarth Guardians* litigation (DOI-BLM-WO-3100-2023-0001-EA). That draft supplemental EA was not finalized. This EA is subject to a 30-day public comment period that will be held from September 25, 2025, through October 27, 2025. The public comments received during the public comment period will be addressed in Appendix G: Comments and Responses.

CHAPTER 2. DESCRIPTION OF ALTERNATIVES

This EA addresses three alternatives in detail: Alternative A – No Action (Section 2.1), Alternative B – Proposed Action: Affirm All Leases (Section 2.2.), and Alternative C – Resource Conflict Avoidance Alternative (Section 2.3).

A list with stipulations and notices, which describe mitigation measures attached to each lease, was provided in the original Notice of Competitive Lease Sale for each lease sale. This list has been updated to reflect the leases being analyzed in this EA and is provided in Appendix B of this document. The stipulations and lease notices described in Appendix B are common to all alternatives and would apply regardless of which alternative is ultimately selected. Stipulations and notices that have been updated since the original issuance of the leases are noted as new in Appendix B. Appendix D contains additional supporting information for Chapter 2.

2.1. ALTERNATIVE A – NO ACTION

Under the No Action Alternative, the BLM would reach a decision that the subject leases should not have been offered for sale and, consequently, should not have been issued. For that reason,

under Alternative A, the BLM would not affirm the original leasing decisions. Choosing the No Action Alternative would not prevent future leasing in these areas consistent with the relevant RMPs.

2.2. ALTERNATIVE B – PROPOSED ACTION: AFFIRM ALL LEASES

Under the Proposed Action, the BLM would affirm its previous decisions to offer and issue the 195 leases (encompassing 239,923.42 acres) with existing stipulations and any additional stipulations and lease notices that were included in the approved land use plans that were in place at the time of issuance but inadvertently not applied at the time of lease issuance, as identified in Appendix B. Any lease suspensions would also be lifted. Surface management, the legal land description of the leases, and the lease stipulations and notices attached to the leases are included in Appendix B.

The leases are subject to the standard lease terms and conditions under Section 6 of the BLM Lease Form (Form 3100-11), along with all stipulations required by policy (such as the BLM Competitive Leasing Handbook H-3120-1) and stipulations identified in the relevant RMP.

2.3. ALTERNATIVE C – RESOURCE CONFLICT AVOIDANCE ALTERNATIVE

Under Alternative C, the BLM would not affirm 93 leases (encompassing 125,734.4 acres; Table 2) that either contain Greater Sage-grouse habitat, are within the Uinta Basin *Sclerocactus* core conservation areas, or are within the Graham's and White River penstemon conservation areas. See Appendix D, Table 48 for details of which leases have conflicts with the relevant species. The BLM would affirm its previous leasing decisions to offer and issue the remaining 102 leases² (encompassing 114,189.02 acres).

The 102 leases carried forward would include the standard lease terms and conditions for development of the surface of oil and gas leases provided in 43 CFR 3100 (BLM Form 3100-11) along with all lease notices mandated by policy (such as BLM Handbook H-3120-1, *Competitive Leases* (BLM, 2013)) and stipulations per the relevant RMP (see Appendix C.4).

Table 2. Leases Not Affirmed Under Alternative C

UTU91937	UTU92765	UTU93904	UTU93930
UTU91938	UTU92807	UTU93905	UTU93931
UTU91948	UTU93250	UTU93906	UTU93933
UTU91949	UTU93260	UTU93907	UTU93934
UTU91950	UTU93261	UTU93910	UTU93935
UTU91953	UTU93433	UTU93911	UTU93936
UTU92487	UTU93670	UTU93913	UTU93937
UTU92679	UTU93671	UTU93914	UTU93938
UTU92680	UTU93672	UTU93915	UTU93939
UTU92682	UTU93673	UTU93916	UTU93946
UTU92683	UTU93684	UTU93917	UTU93947
UTU92684	UTU93686	UTU93918	UTU93948
UTU92686	UTU93687	UTU93919	UTU93959
UTU92701	UTU93688	UTU93920	UTU93962
UTU92702	UTU93881	UTU93921	UTU93963
UTU92703	UTU93882	UTU93922	UTU93965

² Four of the 12 leases subject to reinstatement would be affirmed under this alternative: UTU91058, UTU91060, UTU91945, and UTU92766.

UTU92704	UTU93884	UTU93923	UTU93966
UTU92708	UTU93888	UTU93924	UTU93968
UTU92709	UTU93899	UTU93925	UTU93979
UTU92710	UTU93900	UTU93926	UTU93980
UTU92711	UTU93901	UTU93927	UTU93981
UTU92712	UTU93902	UTU93928	UTU93982
UTU92713	UTU93903	UTU93929	UTU94135
UTU92714			

CHAPTER 3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1. INTRODUCTION

This chapter contains the effects analysis related to the issues analyzed in detail (Section 3.5), including analysis assumptions (Section 3.2), and the relevant reasonably foreseeable trends and planned actions (Section 3.3). Effects of Alternative A are described in Section 3.4. Appendix E contains additional supporting information for Chapter 3.

Lease stipulations and notices are referred to throughout the analysis in Sections 3.5 and Appendix E in terms of their protective influence on resources that may be impacted by potential development of the leases. Lease stipulations “are conditions of lease issuance which provide protection for other resources values or land uses by establishing authority for substantial delay or site changes or the denial of operations within the terms of the lease contract” (BLM, 1990). Lease stipulations are enforceable terms of the lease contract and supersede any inconsistent provisions of the standard lease form. Lease notices (also referred to as Information Notices in BLM Handbook H-1624) provide “notice of existing requirements and may be attached to a lease by the Authorized Officer at the time of lease issuance to convey certain operational, procedural, or administrative requirements relative to lease management within the terms and conditions of the standard lease form” (BLM, 1990). Lease notices may not serve as the basis for denial of lease operations. However, they offer resource protections because they result in information gathering and the identification of resource values and land uses that the BLM, based on its authority under section 6 of the lease form, can require protection for within the constraints enumerated in the lease form (e.g., terms and conditions that would be attached at the APD stage).

3.2. ANALYSIS ASSUMPTIONS

Although the act of leasing does not authorize development, future oil and gas development and production is a reasonable outcome of a granted lease right. There are currently 15 active wells producing from 6 of the leases, 13 approved Applications for Permit to Drill (APDs) on 4 leases, and 32 pending APDs on 8 leases. For the purpose of this analysis, Section 3.2.1 outlines the methods for estimating the number of wells, acres of surface disturbance, and potential production volumes associated with the potential development of the 195 leases.

It is unknown when, where, or to what extent subsequent well sites, roads, and associated infrastructure would be proposed in the event the BLM decides to affirm the leases. Potential development of the leases could include well development, drilling, production and operation, and well reclamation. Appendix H provides a summary of the phases of oil and gas development.

3.2.1. Methods Used for Estimating Number of Oil and Gas Wells, Surface Disturbance, and Production Volumes

In estimating foreseeable development, the BLM split the analysis between the Vernal FO and all other relevant FOs. This was done because the Vernal FO has a substantially higher amount of oil and gas development than any of the other FOs, so different methods were utilized to estimate foreseeable development, as outlined in the sections below.

Foreseeable Development Outside Vernal Field Office

The RMPs (See Appendix C.4 for a list of RMPs) for the Fillmore, Moab, Monticello, Price, and Richfield FOs all included a Reasonably Foreseeable Development Scenario (RFDS), a planning tool to provide a reasonable estimate of what oil and gas exploration and development activities might be proposed, should a decision be made to lease the area.

The 2015 Greater sage-grouse RMP Amendment's Final Environmental Impact Statement Appendix R also included a RFDS which was used to calculate the foreseeable development for the leases in the Salt Lake FO. Additionally, the Moab Master Leasing Plan (MLP) included an RFDS for the leases that fall within that planning area.

When and if an APD is submitted for any of the leases, the BLM would adhere to all policies and regulations (as revised through the life of an active lease). Management provisions would adhere to Gold Book best management practices (BMPs) (Appendix H) (BLM, 2007). In general, activities are anticipated to take place as described in Appendix H. This appendix provides a general discussion of possible post-leasing development and production activities. All of these activities would require additional NEPA review when a lease holder submits an APD.

For the purpose of this analysis, the BLM calculated foreseeable development for the 59 leases outside of the Vernal FO based on the RFDSs outlined above which serves as an analytical baseline for identifying and quantifying effects of oil and gas activity for this EA. This estimation of foreseeable development is intended for analysis purposes only and implies no guarantee of subsequent development of the leases. Actual development could be higher or lower than estimated for this analysis. The foreseeable development for this EA is based on the proportion of the acreage within each field office RFDS compared to the acreage in the leases for that particular FO being analyzed in this EA (see Table 1). The RMP RFDSs also included an estimation of surface disturbance per well (well pad and associated infrastructure) that is specific to the area covered by the specific RFDS. Table 3 shows the foreseeable development summary for leases outside of the Vernal FO.

Table 3. Foreseeable Development Summary for Leases in Each FO Outside of Vernal FO

Area	# of Leases for Analysis	Total Predicted Wells	Surface Disturbance per Well (acres/well)	Total Surface Disturbance (acres)	Total Oil Production for life of wells (bbl)	Total Gas Production for life of wells (mcf)	Total Produced Water Production for life of wells (bbl)	Total Estimated Water to Drill (bbl)
Fillmore FO	8	1	6	6	0	0	0	1,537
Moab RMP	8	3	15	45	11,826	567,901	7,517	4,442
Moab MLP	13	2	8.2	16.4	52,325	321,089	59,379	2,887

Area	# of Leases for Analysis	Total Predicted Wells	Surface Disturbance per Well (acres/well)	Total Surface Disturbance (acres)	Total Oil Production for life of wells (bbl)	Total Gas Production for life of wells (mcf)	Total Produced Water Production for life of wells (bbl)	Total Estimated Water to Drill (bbl)
Monticello FO	5	1	9.6	9.6	89,302	113,309	482,606	1,234
Price FO	8	10	7.9	79	701	1,163,469	790,786	11,069
Richfield FO	14	5	6.8	34	1,195,669	867,191	2,588,726	8,001
Salt Lake FO	3	1	5.5	5.5	0	0	0	1,168
TOTALS:	59	23	-	195.5	1,349,823	3,032,959	3,929,015	30,338
Per well average:	-	-	8.5	-	58,688	131,868	170,827	1,319

Note: bbl = barrels; mcf = thousand cubic feet.

For both the Fillmore FO and Salt Lake FO the total production numbers are zero because the wells are expected to be dry wells.

Fluid minerals management in the Moab FO is administered by two RMPs. The Moab RMP and the Moab Mineral Leasing Plan (MLP). In the area covered by the Moab MLP, fluid minerals decisions in the MLP supersede the Moab RMP.

Vernal Field Office Foreseeable Development

The Vernal RMP (BLM, 2008) included a RFDS for oil and gas development in the Mineral Potential Report Appendix A. The 2015 Greater Sage Grouse RMP Amendment's Final Environmental Impact Statement Appendix R included a second RFDS (BLM, 2015). The RFDSs are based on historic data but also considered projected economic trends and advances in technology. As a planning and analysis tool, the RFDSs predict new development as well as continued production from existing fields for the anticipated life of the field. The BLM recognizes that there will be a greater degree of uncertainty associated with estimates of new discoveries. The BLM prepared the RFDSs in compliance with Washington Office Instruction Memorandum 2004-89, (January 16, 2004).

To estimate the lease-specific foreseeable development for the purposes of this NEPA analysis, the BLM also considered more recent data from BLM experience, existing well production, new permitting, geologic studies, and economic studies and projections. Based on the more recent data for horizontal wells, the estimated number of wells per lease was calculated as one well per every 160 acres. Acreages of surface disturbance were calculated by using 1.5 acres/well (1 acre for the pad and 0.5 for the associated roads and pipelines) for horizontally or directionally drilled wells. For vertical wells, based on the more recent data, the estimated number of wells per lease was calculated as one well per every 40 acres. Acreages of surface disturbance were calculated by using 5 acres/well for pad, roads, and pipelines for vertically drilled wells. The BLM gathered the more recent information from BLM experts, industry professionals, the Utah Division of Oil, Gas, and Mining, and the Utah Geological Survey. Table 4 shows the assumptions used to estimate future development. See Appendix E for lease specific estimates. These estimations of foreseeable development are intended for analysis purposes only and imply no guarantee of subsequent development of the leases. Actual development could be higher or lower than estimated for this analysis.

Table 4. Foreseeable Development Summary for Leases in Vernal FO

Area	# of Leases for Analysis	Total Predicted Wells†	Average* Surface Disturbance per Well (acres/well)	Total Surface Disturbance (acres)	Total Oil Production (bbl)	Total Gas Production (mcf)	Total Produced Water Production (bbl)	Total Estimated Water to Drill (bbl)
Vernal FO	136	1,375	4.20	5,732	61,347,038	1,765,545,222	120,426,042	1,980,133

Note: bbl = barrels; mcf = thousand cubic feet.

† In cases where the methods used for estimating the number of wells per lease resulted in a fractional value of number of wells per lease, the fractional value was rounded to the nearest whole number to represent a rational outcome of the number of potential wells that could be drilled and developed on the lease, as well as to provide meaningful inputs to the oil, gas, and produced water production projections. The fractional number was used in calculating the total surface disturbance acreage.

*This average is rounded to the nearest tenth of an acre.

All acreages contained in the EA analysis were calculated using geographic information system (GIS) data sets for resources and the leases, which may differ slightly from the acreages contained in legal descriptions. Differences in total acres between the leases and acres analyzed in the EA can vary slightly due to geoprocessing operations where slivers of area are created when two or more data sets intersect. Any inaccuracies are negligible and do not change the overall impact analysis conclusions presented in this EA.

For the purpose of this analysis, it is assumed the Proposed Action would result in 1,375 well bores on the 136 leases in the Vernal FO. (Refer to Appendix E, Table 51 for individual lease estimates). For these 1,375 wells, total surface disturbance is estimated to be 5,732 acres, but the disturbance may occur off-lease in the case of highly-deviated directional or horizontal development. Table 5 shows production estimates for each type of well.

Table 5. Production Estimates Per Well Type: Vernal FO

Well Type	Gas Type Curve EUR	Oil Type Curve EUR	Produced Water Type Curve EUR	Water Required to Drill (bbls)
Vertical Gas	1,800,000	10,000	15,000	949,024
Vertical Oil	45,000	75,000	150,000	561,638
Directional Gas	1,800,000	10,000	15,000	423,388
Directional Oil	45,000	75,000	150,000	31,682
Horizontal Gas	6,000,000	350,000	1,200,000	7,200
Horizontal Oil	400,000	4,000,000	8,000,000	7,200

Note: bbl = barrels; mcf = thousand cubic feet

Existing Well Bores on the Leases

The leases shown in Table 6 already have 15 existing wells on them that may be capable of production.

Table 6. Existing Wells per Lease: Vernal FO

Lease	Existing Wells
UTU91068	2
UTU91342	2
UTU91343	7
UTU93002	1
UTU93710	1

Lease	Existing Wells
UTU94003	2

Foreseeable Development for Alternative C

Tables 8 and 9 contain a summary of the foreseeable development for the 102 leases affirmed under Alternative C.

Table 7. Foreseeable Development Summary for Alternative C for Leases Outside of Vernal FO

Area	# of Leases for Analysis	Total Predicted Wells	Surface Disturbance per Well (acres/well)	Total Surface Disturbance (acres)	Total Oil Production (bbl)	Total Gas Production (mcf)	Total Produced Water Production (bbl)	Total Estimated Water to Drill (bbl)
Fillmore FO	5	1	6	6	0	0	0	1,537
Moab RMP	8	3	15	45	11,826	567,901	7,517	4,442
Moab MLP	13	2	8.2	16.4	52,325	321,089	59,379	2,887
Monticello FO	5	1	9.6	9.6	89,302	113,309	482,606	1,234
Price FO	8	10	7.9	79	701	1,163,469	790,786	11,069
Richfield FO	13	5	6.8	34	1,195,669	867,191	2,588,726	8,001
Salt Lake FO	0	0	5.5	0	0	0	0	0
TOTALS:	52	22	-	190	1,349,823	3,032,959	3,929,015	29,170
Per well average:	-	-	-	-	58,688	131,868	170,827	1,326

Table 8. Foreseeable Development Summary for Alternative C for Leases in Vernal FO

Area	# of Leases for Analysis	Total Predicted Wells	Average* Surface Disturbance per Well (acres/well)	Total Surface Disturbance (acres)	Total Oil Production (bbl)	Total Gas Production (mcf)	Total Produced Water Production (bbl)	Total Estimated Water to Drill (bbl)
Vernal FO	50	364	3.70	1,357	17,285,283	655,971,093	35,332,466	525,176

*This average is rounded to the nearest tenth of an acre.

3.3. REASONABLY FORESEEABLE TRENDS AND PLANNED ACTIONS SCENARIO

This section outlines reasonably foreseeable environmental trends and planned actions in the vicinity of the leases that have a relationship to potential resource effects associated with the alternatives. This section appears prior to the impacts analysis because it is intended to provide broad context for those analyses and the activities occurring and trends influencing the environment in the area.

The 195 leases are located in the following 13 counties: Carbon, Daggett, Duchesne, Emery, Grand, Juab, Rich, Sanpete, San Juan, Sevier, Summit, Uintah, and Wayne.

Livestock grazing: There are 99 allotments within 6 of the 7 FOs across the 13 counties. The Salt Lake FO has leases; however, the leases are not within any grazing allotment(s). Grazing is and has been occurring in the state of Utah and specifically these 13 counties since around the 1850's

when settlers began to become established in these counties. Grazing also occurs on state and private land potentially affected by the leases. It is expected that livestock grazing would continue on public, state and private lands. See Appendix E.2, AIB-8 Livestock Grazing for additional information.

Fluid Mineral Development: As of July 2025, there are 14,022 active oil or gas wells in the 13 counties. The majority are in Uintah (7,801 wells), Duchesne (3,678 wells), and Carbon (1,063 wells) counties. For 2025, there are currently 58 parcels in Uintah County, and 3 parcels in Sanpete County, that are being analyzed for upcoming lease sales. The BLM also anticipates holding quarterly lease sales in 2026, but the locations of those parcels are currently unknown.

Solid Minerals: Within the 13-county area, there are mineral materials and free use permits, community pits, unpatented mining claims, mining claim Notices and Plans of Operation, gilsonite leases and prospecting permits, coal leases, and potassium prospecting permits.

Lands and Realty (Land Use Authorizations and Renewable Energy): There are multiple authorized land use authorizations (ROWs, leases, and permits) within, near, or adjacent to the 195 leases across the assessed counties. Most of these authorizations are linear in nature, including power lines, roads, pipelines (both oil and gas and water), highways, railroads, and fiber optic and communication lines. Approved non-linear uses within, near, or adjacent to these leases include mineral material sites and communication sites. Additionally, several designated west-wide energy corridors are located within, near, or adjacent to the WEG leases. Pending and interim land use authorizations are primarily linear, such as roads, power lines, and fiber optic lines.

Solar allocations indicate that most of the land within, near, and adjacent to these leases is primarily designated as exclusion areas, as defined in the 2024 Solar Programmatic Environmental Impact Statement (PEIS), meaning they are not available for solar development. However, some areas are allocated as available for solar applications in the 2024 Solar PEIS, which will require site-specific analysis. There is one solar development application within Grand County that partially overlaps with one of the WEG leases.

Greenhouse Gases: Information on greenhouse gases is incorporated by reference from the 2023 BLM Specialist Report on Annual Greenhouse Gas Emissions and Climate Trends (Hereafter referred to as the “Annual GHG Report”) (BLM, 2024), and the BLM Utah Air Resource Management Strategy 2024 Monitoring Report (hereafter referred to as the “Air Monitoring Report”) (BLM, 2024).

County level anthropogenic GHG emissions from the 2020 National Emissions Inventory (NEI) and Facility Level Information on GHG Tool (FLIGHT) (EPA, 2022) datasets is provided in Table 9. County level data is reported in the mass of carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and carbon dioxide equivalent (CO₂e). More information on GHGs and CO₂e can be found in the Annual GHG Report.

Table 9. County level GHG Emissions (CO₂e) in Metric Tonnes (t) for the 2020 Reporting Year

County	CO ₂ (t)	CH ₄ (t)	N ₂ O (t)	100-yr CO ₂ e(t)	20-yr CO ₂ e(t)
Carbon	698,519	2,507.50	9.326	775,788	907,934
Daggett	75,439	115.26	0.415	78,987	85,062
Duchesne	393,558	312.45	3.764	403,896	420,362
Emery	12,671,557	1,477.68	215.244	12,774,354	12,852,228

County	CO ₂ (t)	CH ₄ (t)	N ₂ O (t)	100-yr CO ₂ e(t)	20-yr CO ₂ e(t)
Grand	337,604	20.14	3.187	339,075	340,136
Juab	1,398,698	140.23	5.239	1,404,307	1,411,697
Rich	55,589	9.97	0.579	56,044	56,569
San Juan	307,712	225.09	2.261	315,037	326,899
Sanpete	189,817	43.19	3.898	192,168	194,444
Sevier	373,873	378.50	3.760	386,179	406,126
Summit	719,949	51.75	8.578	723,833	726,560
Uintah	3,662,837	658.10	60.972	3,699,094	3,733,776
Wayne	38,138	5.24	0.593	38,456	38,733
State Total	53,888,058	40,175.67	765.459	55,294,263	57,411,521

Reasonably foreseeable actions and trends will influence future emissions. The State of Utah recently developed the Beehive Emissions Reduction Plan (UDEQ, 2024) which is a set of voluntary measures that stakeholders and partners can leverage to secure funding for reducing GHG emissions. In the plan the state developed near-term (2030) and long-term (2050) projections of GHG emissions that would occur in a “business-as-usual” scenario. The projections show that GHG emissions in Utah are anticipated to decrease slightly from base year 2017 to 2030, after which emissions increase slightly through 2050. The projection also shows that most emissions reductions will occur in the electric power generation sector due to a projected transition to lower emitting forms of energy, a trend that will continue through 2050. This trend results in a 53% emission reduction in the electric generation sector compared to 2017 levels. All other sectors are expected to see increases in emissions by 2050, with emissions in the transportation sector projected to increase by over 36%. County level emissions projections are not available but are expected to follow similar trends to the state level (UDEQ, 2024).

Table 10. Projected GHG Emissions by Sector in Utah in Mt CO₂e

Sector/Source	2017	2030	2050
Transportation	18.04	20.87	24.61
Electric Power Generation	27.60	16.86	12.89
Industry	12.71	14.98	16.38
Agriculture	3.31	4.00	4.00
Buildings	6.59	7.43	7.96
Waste Management	1.28	1.40	1.67
Total Emissions	69.53	65.54	67.51

Source: Beehive Emissions Reduction Plan (UDEQ, 2024)

Water Use: The most recent available data from the USGS water resources report for Utah is from 2015 (USGS, 2017). Table 11 The total water use for each of the 13 counties is presented below in Table 11. Mining water use is water used for the extraction of minerals that may be in the form of solids, such as coal, iron, sand, and gravel; liquids, such as crude petroleum; and gases, such as natural gas. The category includes quarrying, milling of mined materials, injection of water for secondary oil recovery or for unconventional oil and gas recovery (such as hydraulic fracturing), and other operations associated with mining activities. Dewatering is not reported as a mining withdrawal unless the water was used beneficially, such as dampening roads for dust control. This is a summary of mining self-supplied surface and ground water with fresh and

saline water types. The water use of these types is presented is averaged per county in millions of gallons per day (Mgal/d). These volumes represent mining activity as beneficial uses for each county. Portions of these volumes would be for drilling, completion, and other oil and gas related water uses for each county. The numbers presented only represent self-supplied water uses and do not account for municipal or other purchased water rights where oil and gas operators can also acquire necessary water for drilling and other well development needs. The development of the leases and additional drilling activities would create additional water demand in these counties. Data indicates that 98.6% of total self-supplied withdrawals are from deep saline sourced wells with Total Dissolved Solids (TDS) levels in excess of 10,000 mg/l, which reduces demand on more valuable and shallower freshwater supplies; additionally, approximately 1.4% are from freshwater sources from the State of Utah. Economic incentives exist for oil and gas operators to re-use water to the maximum extent possible, and re-use is typically not reported.

Table 11. USGS Mining Water Used Data Utah 2015

County	2015	Mining self-supplied withdrawals, groundwater fresh Mgal/d	Mining self-supplied withdrawals, groundwater saline, Mgal/d	Mining total self-supplied withdrawals, groundwater, Mgal/day	Mining self-supplied withdrawals, surface water Mgal/day	Mining self-supplied withdrawals, saline Mgal/d	Mining total self-supplied surface water Mgal/d	Mining total self-supplied withdrawals fresh Mgal/d	Mining total self-supplied withdrawals saline Mgal/d	Mining total self-supplied withdrawals Mgal/d
Carbon	2015	0.04	0.04	0.08	0.01	0	0.01	0.05	0.04	0.09
Daggett	2015	0	0	0	0	0	0	0	0	0
Duchesne	2015	0	204	2.4	0.81	0	0.81	0.81	2.4	3.21
Emery	2015	0.45	0	0.45	0	0	0	0.45	0	0.45
Grand	2015	0	0	0	0.98	0	0.98	0.98	0	0.98
Juab	2015	0	0	0	0	0	0	0	0	0
Rich	2015	0	0	0	0	0	0	0	0	0
San Juan	2015	0.13	5.27	5.4	0	0	0	0.13	5.27	5.4
Sanpete	2015	0	0	0	0	0	0	0	0	0
Sevier	2015	0.06	0	0.06	0	0	0	0.06	0	0.06
Summit	2015	0	0	0	0	0	0	0	0	0
Uintah	2015	0.99	0.57	1.56	0	0	0	0.99	0.57	1.56
Wayne	2015	0	0	0	0	0	0	0	0	0
Utah (State)	2015	1.67	43.68	45.35	1.8	214.35	216.15	3.47	258.03	261.5

Additionally, the mining use withdrawals are compared to the other major water use withdrawals in these counties for irrigation, public supply, domestic self-supplied, and livestock are presented in the Table 12 below. Additional future development could potentially increase the total mining use withdrawals for each county.

Table 12. Other Water Used Data Utah 2015

County Name	Year	Mining total self-supplied withdrawals, in Mgal/d	Irrigation, Total total self-supplied withdrawals, in Mgal/d	Public Supply total self-supplied withdrawals, total, in Mgal/d	Domestic total self-supplied withdrawals plus deliveries, in Mgal/d	Livestock total self-supplied withdrawals, fresh, in Mgal/d	SUM of Total Use Withdrawals Mgal/d	Percent of Mining withdrawals total self-supplied compared to other uses
Carbon County	2015	0.09	37.66	5.41	3.34	0.17	46.67	0.19
Daggett County	2015	0	19.45	0.55	0.5	0.03	20.53	0.00
Duchesne County	2015	3.21	307.07	4.37	2.7	0.69	318.04	1.01
Emery County	2015	0.45	127.06	1.74	4.86	0.33	134.44	0.33
Grand County	2015	0.98	19.01	2.74	2.12	0.05	24.9	3.94
Juab County	2015	0	61.13	4.59	2.37	0.28	68.37	0.00
Rich County	2015	0	117.24	1.79	1.76	0.56	121.35	0.00
San Juan County	2015	5.4	14.29	1.41	2.57	0.22	23.89	22.60
Sanpete County	2015	0	197	4.9	4.96	1.17	208.03	0.00
Sevier County	2015	0.06	66.79	4.63	4.46	0.66	76.6	0.08
Summit County	2015	0	46.01	8.95	6.54	0.27	61.77	0.00
Uintah County	2015	1.56	194.24	8.83	5.94	0.52	211.09	0.74
Wayne County	2015	0	46.85	0.59	1.15	0.24	48.83	0.00

3.4. ALTERNATIVE A IMPACTS FOR ALL ISSUES

Under Alternative A, the BLM would choose to not affirm the 195 leases. The existing conditions and trends related to each issue would continue. Potential impacts associated with future development of the leases would not occur under this alternative at this time, current land and resource uses would continue, and the federal mineral acreage would remain open to future oil and gas leasing unless land use plan amendments are completed to close these areas to leasing. In which case, no additional natural gas or crude oil from the leases would be produced, and no royalties would accrue to federal or state treasuries. Selection of Alternative A would forgo new oil and gas development opportunities on approximately 239,923.42 acres of federal minerals in the seven FOs, and the 45 pending and approved APDs would not be developed. This reduction in oil and gas development opportunities in the area is likely to incrementally reduce local and regional employment and revenue opportunities related to the oil and gas and service support industries over time. This is because the oil and gas sector of the economy relies on both ongoing operational activities (development of existing leases) and new development opportunities (acquisition and development of new leases) to continue to provide local and regional jobs and revenue on a sustained basis. In the event that the issuance of these leases is not affirmed, these same lands may be nominated again and offered in a later sale. In the 44.1 million-acres within the boundary of the seven FOs, there are approximately 16 million acres of federal mineral estate that are open to oil and gas leasing.

3.5. ISSUES ANALYZED IN DETAIL

The BLM identified lease specific resource concerns and lease stipulations for the leases through a preliminary review process conducted during development of the EA. The following resources/issues are analyzed in detail in this EA using input from internal scoping. Issues were retained for detailed analysis if that analysis is necessary to make a reasoned choice between alternatives; to determine significance; if there is disagreement about the best way to use a resource; or if there is conflict between resource impacts or uses.

For the purposes of this analysis, the BLM considers short-term effects as those that cease after well construction and completion (30–60 days); long-term effects are considered those

associated with well operations and production and would cease after operations/production are concluded (typically 20-30 years).

3.5.1. Issue 1 : Air Quality

What quantities and types of air pollutants would be produced from potential development of the leases? How would air pollutant emissions affect air quality and air quality related values?

Air quality is determined by the quantity and chemistry of atmospheric pollutants and is affected by meteorological factors (i.e., weather patterns) and topography. These factors influence the dispersion and concentration of these pollutants. The presence of air pollutants is due to several different and widespread sources of emissions. The impact analysis area for air quality is the airsheds in which the leases are located. However, air quality data is reported at the county level instead of by airshed, so county level data is used here as a proxy. The BLM identified this spatial scope of analysis based on the natural dispersion of air pollution and to facilitate analysis using the best available air quality data.

Affected Environment

The Air Monitoring Report (BLM, 2024) discusses past, present, and foreseeable emissions and air quality data for Utah. The BLM incorporates by reference information from the Air Monitoring Report to help describe the air quality affected environment in the analysis area. The EPA has primary responsibility for regulating air quality, including six nationally regulated criteria air pollutants (CAPs): carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), particulate matter (PM₁₀ & PM_{2.5}), sulfur dioxide (SO₂) and lead (Pb). Volatile organic compounds (VOCs) are also regulated by the EPA as sunlight causes VOCs to react with NO₂ to form O₃. The National Emissions Inventory (NEI) (EPA, 2024) is a comprehensive and detailed estimate of CAP emissions, criteria precursors, and hazardous air pollutants (HAP). The NEI is released every three years based primarily upon data provided by state, local, and tribal air agencies for sources in their jurisdictions and is supplemented by data developed by the US EPA. The most recent reporting year for the NEI is 2020. County emissions inventories relevant to the analysis area are listed in Table 13. Total emissions include both natural (e.g., wildfires and biogenic) and anthropogenic (e.g., fuel combustion, mobile) sources. Although lead is identified as a CAP under the Clean Air Act (CAA), it is dismissed from further discussion because statewide emissions reported in the 2020 NEI are less than one ton per year and therefore negligible for the purposes of this analysis.

Table 13. Existing Criteria Air Pollutant and VOC Emissions in Tons Per Year (TPY)

County	Source	CO	NO _x **	PM ₁₀	PM _{2.5}	SO ₂	VOC
Carbon	Anthropogenic*	3,877.5	1,442.3	3,298.8	480.6	449.2	2,557.2
Carbon	Total	5,289.8	1,728.4	3,324.3	502.3	451.1	8,904.5
Daggett	Anthropogenic*	448.4	915.5	591.6	82.6	1.2	149.4
Daggett	Total	8,085.9	1,151.6	1,310.5	691.9	55.8	5,143.2

County	Source	CO	NO _x **	PM ₁₀	PM _{2.5}	SO ₂	VOC
Duchesne	Anthropogenic*	8,795.7	6,199.8	5,175.5	1,026.2	214.1	1,699.5
Duchesne	Total	408,102.2	9,976.9	43,729.3	33,698.9	2,557.2	117,492.5
Emery	Anthropogenic*	9,762.8	14,663.6	4,338.1	1,142.6	4,585.6	823.8
Emery	Total	11,726.9	15,122.7	4,343.0	1,146.8	4,586.0	8,859.9
Grand	Anthropogenic*	4,279.1	1,487.7	1,461.5	224.6	5.5	1,089.7
Grand	Total	6,623.1	2,059.7	1,465.1	227.7	5.9	11,687.5
Juab	Anthropogenic*	3,676.5	1,174.7	1,724.8	352.2	11.0	590.4
Juab	Total	25,628.0	1,994.1	3,878.7	2,177.5	190.9	12,404.2
Rich	Anthropogenic*	1,421.7	142.9	1,838.4	264.7	0.5	443.4
Rich	Total	1,870.9	299.4	1,838.7	265.0	0.5	2,755.7
San Juan	Anthropogenic*	3,874.9	849.5	4,141.7	668.5	43.6	1,239.9
San Juan	Total	8,621.9	1,672.2	4,205.2	722.4	49.7	20,814.3
Sanpete	Anthropogenic*	3,290.6	487.0	5,481.7	791.6	8.0	1,256.3
Sanpete	Total	5,256.2	824.9	5,575.3	870.9	15.9	8,463.0
Sevier	Anthropogenic*	10,512.2	880.5	5,201.4	1,239.1	70.7	2,448.6
Sevier	Total	14,015.8	1,261.5	5,426.3	1,429.6	85.1	10,587.9
Summit	Anthropogenic*	6,809.5	2,029.6	4,273.8	688.1	128.9	1,284.7
Summit	Total	9,677.3	2,314.3	4,465.6	850.6	143.3	10,587.9
Uintah	Anthropogenic*	10,773.1	7,932.5	5,977.8	1,234.1	135.1	47,429.0
Uintah	Total	13,636.0	8,644.4	6,000.1	1,253.1	137.1	58,108.2
Wayne	Anthropogenic*	619.5	93.4	885.3	140.5	0.8	163.8
Wayne	Total	1,717.5	362.4	885.3	140.5	0.8	5,065.7

Source: The National Emissions Inventory.

* Anthropogenic emissions are considered all emissions omitting wildfires and biogenic sources.

** nitrogen oxide(s)

The EPA has established National Ambient Air Quality Standards (NAAQS) for CAPs (EPA, 2024). The NAAQS are protective of human health and the environment. Compliance with the NAAQS is typically demonstrated through monitoring of ground-level concentrations of atmospheric air pollutants. The EPA designates areas where pollutant concentrations do not exceed the NAAQS as attainment or unclassifiable. Areas designated as unclassifiable for a given NAAQS are those where available monitoring data are insufficient or unavailable to determine compliance; under the CAA, such areas are treated as being in attainment for regulatory purposes. Locations where monitored pollutant concentrations exceed the NAAQS are designated nonattainment, and the EPA considers this air quality as unhealthy. Air pollutant concentrations are reported using design values. A design value is a statistic that describes the air

quality status of a given location relative to the level of the NAAQS. Design values are used to designate and classify nonattainment areas, as well as to assess progress towards meeting the NAAQS. Design values that are representative for the airsheds of interest are listed in Table 14. Based on design values, the EPA has designated portions of Duchesne and Uintah Counties below 6,250 ft. elevation (i.e., Uinta Basin) as nonattainment for O₃. All other counties where leases are located are designated as attainment or unclassifiable for all CAPs. The EPA has classified the Uinta Basin as “moderate” nonattainment area for the 2015 ozone standard. Ozone values have trended down in recent years, but the region is still prone to high ground-level ozone concentrations during winters with considerable snowfall.

The BLM assumes that counties without reported design values for a particular pollutant have air pollutant concentrations below the NAAQS and good air quality since air monitoring because there is no information that would indicate the area is not attaining air quality standards. Air monitoring is usually needed when human populations in a core based statistical area increase to the thresholds outlined in 40 CFR 58.13 and monitoring can be discontinued when concentrations fall below 80% of the NAAQS (40 CFR 58.14(c)(1)).

Table 14. County-Level Design Values for the Averaging Period of 2022 to 2024

Pollutant	County	Averaging Time	2022-2024 Concentration	NAAQS ¹	Percent of NAAQS
PM _{2.5}	Carbon	Annual	4.0*	9 µg/m ³	44%
	Duchesne		6.6		73%
	Grand		7.3*		81%
	Uintah		5.6		62%
PM _{2.5}	Carbon	24-hour	11*	35 µg/m ³	31%
	Duchesne		24		69%
	Grand		14*		40%
	Uintah		18		51%
NO ₂	Carbon	1-hour	15*	100 ppb	15%
	Duchesne		39		39%
	Grand		23*		23%
	Uintah		30		30%
NO ₂	Carbon	Annual	2	53 ppb	4%
	Duchesne		5		9%
	Grand		4		8%
	Uintah		3		6%
O ₃	Carbon	8-hour	0.062	0.070 ppm	89%
	Duchesne		0.076		109%
	San Juan		0.065		93%
	Uintah		0.076		109%

Source: The National Emissions Inventory.

¹Concentrations in parts per million (ppm), parts per billion (ppb), microgram per cubic meter (µg/m³).

*Indicates that the design value is incomplete for the reporting years. While incomplete values can't be used for attainment determinations, they still provide useful information about air quality in their respective airshed.

HAPs, also known as toxic air pollutants, are known, or suspected, to cause cancer or other serious health effects, or adverse environmental effects (EPA, 2024). HAPs emitted by the oil and gas industry include benzene, toluene, ethyl benzene, mixed xylenes, formaldehyde, normal-hexane, acetaldehyde, and methanol. Statewide, these individual pollutants make up 95% of the HAPs emitted from the oil and gas production. The total HAPs emissions for the State of Utah and the counties where the leases are located are listed in Table 15.

Table 15. 2020 Statewide Total Hazardous Air Pollutant Emissions (tpy) by County

County	Total Emissions (tpy)	Vegetation and Soils (tpy)	Wildfire (tpy)	Prescribed Fire (tpy)	Oil and Gas Production (tpy)	Anthropogenic Emissions (tpy)
Carbon	1,237.94	988.66	15.39	0.48	65.31	233.89
Daggett	993.62	525.29	441.24	1.95	0.91	27.10
Duchesne	21,914.21	1,604.72	18,933.88	4.58	1,171.81	1,375.60
Emery	1,906.85	1,761.71	3.52	15.72	8.38	141.63
Grand	2,201.48	2,017.46	2.91	23.22	39.20	181.11
Juab	3,005.11	1,431.95	1,453.84	0.48	-	119.32
Rich	505.91	417.05	0.26	-	-	88.60
San Juan	4,025.14	3,811.96	49.05	53.76	6.13	164.13
Sanpete	1,221.33	936.23	64.38	20.41	1.33	220.72
Sevier	1,657.31	1,034.20	116.24	336.23	-	506.87
Summit	1,136.44	751.93	116.15	-	3.32	268.36
Uintah	4,814.43	2,410.69	16.35	10.05	2,199.96	2,387.39
Wayne	1,048.98	1,015.41	-	2.20	-	33.57
State Total	83,710.82	39,695.91	26,178.41	798.10	3,496.35	17,836.51

Source: The National Emissions Inventory.

The EPA Air Toxics Screening Assessment is used to evaluate impacts from existing HAP emissions in Utah (EPA, 2023). Air Toxics Screening Assessment results for counties relevant to the analysis area are reported in Table 16. The total cancer risk is within the acceptable range published by the EPA of less than 100 in 1 million as discussed in the National Contingency Plan, 40 CFR § 300.430 (EPA, 1999). A hazard index (HI) is a numerical value that represents the combined potential for non-cancer health effects from exposure to specific air toxics. Hazard index values less than one indicate it is unlikely that these air toxics would cause adverse health effects over a lifetime of exposure. Potential development on the leases would contribute to HAP emissions and associated carcinogenic and noncancer risks.

Table 16. Total Cancer Risk and Noncancer Respiratory Hazard from Existing HAP Emissions (2019 Reporting Year)

County	Total Cancer Risk (per million)	BACKGROUND Cancer Risk (per million)	Oil & Gas Cancer Risk (per million)	Total Respiratory Hazard Index (HI)
Carbon	12.33	2.56	0.92	0.12
Daggett	9.99	2.52	0.05	0.10

County	Total Cancer Risk (per million)	BACKGROUND Cancer Risk (per million)	Oil & Gas Cancer Risk (per million)	Total Respiratory Hazard Index (HI)
Duchesne	15.89	2.60	5.16	0.13
Emery	10.29	2.58	0.30	0.10
Grand	11.74	2.66	0.01	0.12
Juab	10.58	2.54	0.00	0.10
Rich	12.45	2.55	0.04	0.16
San Juan	11.04	2.58	0.14	0.11
Sanpete	9.91	2.54	0.05	0.09
Sevier	11.20	2.56	0.05	0.13
Summit	11.36	2.50	0.00	0.15
Uintah	12.75	2.63	1.32	0.13
Wayne	9.34	2.46	0.00	0.10
State Total	17.80	2.65	0.06	0.23

Source: EPA's Air Toxics Screening Assessment.

The Clean Air Act (CAA) Prevention of Significant Deterioration (PSD) requirements give more stringent air quality and visibility protection to national parks and wilderness areas that are designated as Class I areas, but a PSD designation does not prevent emission increases. The five national parks in Utah are Federally designated Class I areas, and the rest of the state is designated as Class II. Federal land managers are responsible for defining specific Air Quality Related Values (AQRVs)--including visual air quality (haze), and acid (nitrogen and sulfur) deposition--for an area and for establishing the criteria to determine an adverse impact on the AQRVs. Federal land managers are responsible for defining specific Air Quality Related Values (AQRVs) including visual air quality (haze), and acid (nitrogen and sulfur) deposition--for any Class I area and for establishing the criteria to determine an adverse impact on the AQRVs (42 U.S.C. § 7475(d)(2)(B)). All of the leases in this EA are located within PSD Class II areas. Visibility trends based on air monitoring data from four Utah monitoring sites for the clearest, haziest, and most impaired categories is incorporated by reference from the Air Monitoring Report (see Figures 2 through 5 of the Air Monitoring Report). The marked improvement on the most impaired days at Utah Class I areas demonstrates progress toward Regional Haze Rule goals. The National Park Service monitors and evaluates deposition to determine which parks are most at risk from air pollution and where conditions are declining or improving. At the two deposition monitoring sites in Utah (Bryce Canyon National Park and Canyonlands National Park), nitrogen deposition conditions are fair to poor with a trend that is relatively stable, while sulfur deposition conditions are good with an improving trend at Canyonlands and a relatively unchanging trend at Bryce Canyon (see Table 22 of the Air Monitoring Report).

Reasonably Foreseeable Future Actions

The BLM incorporates by reference the projected changes to air quality and AQRVs that are evaluated in the BLM's Regional Air Quality Model (Ramboll, 2023) (Ramboll, 2023). This modeling study provides a reference for potential changes to the affected environment occurring from past, present, and foreseeable emissions producing activities, including development of oil and gas leases, coal mining, and other emission sources in the region.

Emissions Trends

Past and present actions that have affected and would likely continue to affect air quality in the analysis area include surface disturbance resulting from oil and gas development and associated infrastructure, geophysical exploration, ranching and livestock grazing, range improvements, recreation (including OHV use), authorization of ROWs for utilities and other uses, and road development. These types of actions and activities can reduce air quality through emissions of CAPs (including fugitive dust), and HAPs, as well as contribute to deposition impacts and to a reduction in visibility. Emissions from these activities are included in the inventory contained in Table 13. In the future, emissions from vehicle exhaust, and from residential and commercial activities would likely increase as population and tourist visitation increases in the area.

Estimates of future criteria and hazardous emissions are made in the BLM Regional Air Quality Model (Ramboll, 2023). Emissions estimates are based on the EPA2016v2 modeling platform (Ramboll, 2023), the Western Regional Air Partnership Oil and Gas Working Group emission inventory, and BLM RFD estimates for oil, gas, and coal production. Sources included coal mining, coal combustion, oil and gas development, other anthropogenic sources (mobile and non-point), and natural emissions (open land fires, biogenic). The effects of these emissions are evaluated in the modeled air quality projections section below. Emissions in the oil and gas sector are provided in Table 17. Oil and gas sector emissions roughly parallel oil and gas production. Development and production estimates associated with these emissions projections for oil, gas, and coal are listed in the Air Monitoring Report (see Appendix D of the Air Monitoring Report). Current federal oil and gas development and production in Utah is below that which was modeled in the BLM Regional Air Quality Model by 10.5 million barrels per year of oil, 34 billion cubic feet per year of gas, 98 new spuds per year, and 3,819 total producing wells. Potential development on the leases would not cause existing development to exceed those that were projected in the BLM Regional Air Quality model. The modeled air quality projections fully capture past and present oil and gas development, including potential development on the leases.

Table 17. Modeled Circa 2032 (New Plus Existing Wells) Oil and Gas Emissions in Utah by Mineral Owner

State	Air Pollutant Emissions – Tons Per Year (TPY)						
	NO _x	VOC	CO	SO ₂	PM _{2.5}	PM ₁₀	HAPs
<i>Federal (excluding Tribal)</i>							
UT	10,113	117,584	9,540	288	489	489	7,227
<i>Non-Federal</i>							
UT	5,449	26,535	5,670	185	267	267	1,985
<i>Tribal</i>							
UT	3,763	30,953	3,651	156	189	189	1,673
<i>Total</i>							
UT	19,325	175,071	18,861	629	944	944	10,885

Modeled Air Quality Projections

Results from the BLM Regional Air Modeling Study show that there are no projected exceedances of the NAAQS for NO₂, SO₂, and CO. Source apportionment analysis shows that exceedances of the PM_{2.5} and PM₁₀ standards are due to wildfires, and there are no exceedances due to anthropogenic emissions. Modeled concentrations of O₃ throughout Utah, including counties where leases are located, are in the 55-65 ppb range, which is also below the NAAQS. The existing federal oil and gas sources in the BLM Green River District (Carbon, Daggett, Duchesne, Emery, and Uintah counties) contribute up to 3.7 ppb of O₃, while the new federal oil and gas sources, including the development of the subject leases, in the Green River District contribute up to 2.5 ppb to the O₃ concentrations. The model source apportionment results show that emissions sources outside of Utah have a large contribution to the maximum ozone concentrations in Utah.

Model results were further analyzed to evaluate if NO_x or VOC emissions from oil and gas activities have the largest contribution to O₃ formation in the Uinta Basin. This analysis found that during days of high cumulative O₃ concentrations, the O₃ formed from new federal oil and gas development is predominantly VOC sensitive. In other words, VOC emissions have a major effect on the ozone formed in the Uinta Basin, and reducing VOC emissions could reduce ozone concentrations.

The BLM used the Regional Model Study modeling platform to evaluate the cumulative health effects of specific HAPs originating from oil and gas production (Ramboll, 2023). A photochemical model is used to estimate the cumulative ambient air concentrations of six HAPs (benzene, toluene, ethylbenzene, xylenes, n-hexane, and formaldehyde) resulting from emissions from federal and non-federal oil and gas sources. These six HAPs were selected by BLM for study as they are subject to emissions standards (New Source Performance Standards [NSPSs] and National Emissions Standards for Hazardous Air Pollutants [NESHAPs]) regulated for the oil and gas sectors. Cancerous and non-cancerous risk factor results from the HAPs modeling are provided in the Air Monitoring Report (see Tables 29 and 30 of the Air Monitoring Report) and are incorporated by reference here. The health-based inhalation thresholds used in the BLM HAPs modeling study are the same as those used in EPA's AirToxScreen (EPA, 2023). Total human cancer risk from oil and gas production is highest in Uintah County with a risk factor of 29.8 in a million people, which is below EPA's 100 in 1 million cumulative threshold. Cancer risks factors from oil and gas in other counties where leases are located are: Carbon 7.5 in a million, Daggett 0.9 in a million, Duchesne 7.5 in a million, Emery 0.7 in a million, Grand 1.3 in a million, Juab 0.1 in a million, Rich 0.2 in a million, San Juan 4.2 in a million, Sanpete 0.1 in a million, Sevier 0.3 in a million, Summit 0.4 in a million, and Wayne 0.4 in a million. Chronic noncancer health effects from oil and gas production are also below levels of concern.

Air Quality Related Values

Regional Haze modeling (WRAP/WAQS, 2021) was performed by the EPA and Western Region Air Partnership states to evaluate if reasonable progress is being made toward natural visibility conditions to be achieved by the year 2064 (40 CFR 51.308(d)(1)(i)(B)). The model uses source apportionment to isolate the contributions of U.S. anthropogenic emissions, along with other sources (e.g., international anthropogenic emissions, fires, and natural sources), to visibility extinction at monitoring sites representing Class I areas in the western U.S. This allows for the estimation of the changes in visibility impairment due to U.S. anthropogenic emissions at Class I areas over time and whether they are trending toward no impairment due to U.S. anthropogenic emissions by 2064. The modeling study shows that the current trendline would reach the no impairment goal before 2064.

The BLM Regional Model Study also evaluated deposition of nitrogen and sulfur. A critical load is considered the maximum level of atmospheric deposition of a pollutant that an ecosystem can receive without experiencing harmful environmental effects. The critical load for deposition is 5 kg/ha/yr, and projected deposition rates for both nitrogen and sulfur are below the critical load value. Aggregate annual nitrogen deposition over the Utah analysis area varies between 0.6 and 4.5 kg N/ha. Deposition values are less than 4 kg N/ha throughout most of Utah. Aggregate annual sulfur deposition over Utah varies between 0.01 and 1.1 kg S/ha within Utah, with the maximum deposition occurring near the Carbon-Emery County border.

Environmental Effects

There are four general phases of lease development that would generate air pollutant emissions: 1) well development (well site construction, well drilling, and well completion), 2) well production operations (extraction, separation, gathering), 3) mid-stream (refining, processing, storage, and transport/distribution), and 3) end-use (combustion or other uses) of the fuels

produced. While well development and production operations emissions (phases 1 and 2) occur on-lease and the BLM has program authority over these activities, mid-stream and end-use emissions (phases 3 and 4) typically occur off-lease where the BLM has no program authority. During well development, there could be emissions from earth-moving equipment, vehicle traffic, drilling, and completion activities. NO₂, SO₂, 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 fracturing engine operations would result mainly in NO₂ and CO emissions, with lesser amounts of SO₂. These temporary emissions would be short-term during the drilling and completion phases, which is expected to last between 30 to 60 days. During well production and operations there could be continuous emissions from separators, condensate storage tanks, flares or combustors, and daily tailpipe and fugitive dust emissions from operations traffic. During the operational phase of a well, NO₂, CO, VOC, and HAP emissions would result from the long-term use of storage tanks, pumps, separators, and other equipment. Additionally, dust (PM₁₀ and PM_{2.5}) would be produced due to wind erosion on well pads and roads, and by vehicles servicing the wellsite infrastructure. Single well emission estimates for well development and production operations are based on typical development and production operations scenarios identified for each FO in the Air Monitoring Report (BLM, 2024). The single well emissions (well development and production operations) and assumptions for analysis are used to calculate the annual emissions over the anticipated production life of all leases (approximately 30 years), see Appendix J.

Actual development of individual leases may result in higher or lower emissions for various reasons including differences with geologic formations, proximity to existing support infrastructure, differences in pace of development, different development methods and control technology used by a lessee, and other reasons. A lessee has 10 years to produce in paying quantities on a lease. If production is not established within the 10-year timeframe, the lease would be terminated with no development or emissions occurring.

Emissions of CAPs would also occur outside the impact analysis area from transport, processing, distribution, and end-use. These emissions fall outside the BLM's authority to permit or control and are regulated by other state, local, and federal agencies and for these reasons will not be evaluated in detail.

At the leasing stage it is not possible to accurately estimate potential air quality impacts by modeling 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. Should development on the leases be proposed, and prior to authorizing specific proposed projects on the subject leases, emission inventories may need to be developed. Nearfield air quality dispersion modeling, which may also be required at that time, includes direct and cumulative impact analysis for demonstrating compliance with the NAAQS, plus analysis of impacts to AQRVs (i.e., deposition, visibility), particularly as they might affect nearby (within 31.1 miles or 50 kilometers) Class I areas (some National Parks and Wilderness areas). The subject leases are 4.5 miles or farther from nearby Class I areas.

Studies have demonstrated that oil and gas activity is a primary contributor to wintertime O₃ NAAQS exceedances in the Uinta Basin (Mansfield, 2021) (Mansfield, 2021). While emissions from an individual well or well pad are too small to have a substantial impact on O₃

concentrations, they contribute alongside emissions from other local and regional oil and gas operations to produce an aggregate O₃ impact. These impacts are discussed in the air quality affected environment (Air Quality: Reasonably Foreseeable Future Actions) section. Impacts to AQRVs from existing oil and gas wells and future lease development is projected to be minimal (deposition is below the critical loads and visibility will meet goals before 2064). *See* Section 3.5.1, Affected Environment: Reasonably Foreseeable Future Actions.

Some leases are located partially or fully within the Uinta Basin O₃ nonattainment area. The Clean Air Act general conformity rule (40 CFR 93 Subpart B) provides Federal agencies a method for determining if the emissions in a nonattainment area, from an action under consideration, will delay an area from attaining the NAAQS. This is done by showing that emissions are either de minimis or conform to a State or Federal Implementation Plan. The BLM has prepared a general conformity applicability assessment, which is documented in Appendix I. This assessment demonstrates that the emissions associated with this action are not reasonably foreseeable as defined by the Clean Air Act and general conformity is not applicable to this leasing action. Another conformity applicability assessment will be needed at the permitting stage when information is available (location with respect to nonattainment area, non-permitted emissions sources, control technology, emissions offsets, new implementation plans, etc.) to create an emissions inventory based on actual plans for development.

The BLM does not anticipate substantial air resource impacts from leasing as this proposal is an administrative action. Lease development has the potential to contribute to O₃ exceedances in the Uinta Basin. Emission estimates associated with each alternative are provided below and would be part of the air quality analysis provided in the reasonably foreseeable future actions section. At the permitting stage, a precise emissions inventory will be developed and analyzed to ensure emissions are below de minimis levels or conform to state or Federal implementation plans that are in effect at the time. As identified in notice UT-LN-102, additional analysis or mitigation may be required when leases are developed to ensure no adverse impacts occur.

Impacts of Alternative A

Under Alternative A, the BLM would not affirm the issuance of the 195 leases. However, in the absence of a Land Use Plan amendment closing the lands to leasing, lands encumbered by the subject leases could be considered for inclusion in future lease sales. No new emissions associated with new Federal oil and gas development for the subject leases would occur under Alternative A in the immediate future, although some emissions would occur from the potential reclamation and plugging of the 15 producing wells currently on some of the leases. Plugging and reclamation emissions would have a negligible short-term impact on air quality and a long-term benefit with no more ongoing emissions from operating these 15 wells. Other activities authorized within the analysis area would continue to occur, such as previously authorized and sold oil and gas leases.

Impacts of the Proposed Action (Alternative B)

Short-term, long-term, and average year emissions estimated for Alternative B are provided in Table 18. Short-term emissions are those that occur primarily from well development and are from the maximum emissions year over the first ten years that a lease must be developed in order to continue to be held by production. The long-term emissions are those that occur primarily

from well production. More details on the emissions estimates are provided in Appendix J. Emissions tables in Appendix J show emissions by BLM FO compared to existing emissions in the airshed (i.e. county), and the annual emissions break down for all lease development. Emissions from leases outside Vernal FO would result in a maximum increase of 1% to existing emissions in each county for all CAPs and HAPs and a maximum increase of 2% for VOCs. Within the Vernal FO, emissions from the leases could increase CAPs and HAPs about 3% to 20% compared to existing emissions in Duchesne and Uintah Counties (see Table 101), and a maximum increase of 14% for VOCs. While these numbers appear to be a relatively large percentage of county level emissions, they mostly replace existing emissions that would otherwise go away in the absence of new development. For example, oil and gas production declines as a well ages, reducing operation emissions over time with emissions for a well eventually going to zero once it is plugged. Additionally, in 2023 there were 107 new wells that were drilled in Utah (BLM, 2024), and development of these leases would average out to approximately 140 wells which is only an increase of 33 wells per year being developed.

Table 18. Annual Emissions Estimates from Well Development and Production Operations of the Leases for Alternative B (TPY)

Year	PM ₁₀	PM _{2.5}	VOC	NO _x	CO	SO ₂	HAPs
Maximum Year Short-term Emissions	392.03	117.41	225.07	2204.92	1056.69	13.93	23.88
Maximum Year Long-Term Emissions	992.58	321.54	11,002.2 6	2,949.7 8	4,823.1 0	13.98	894.72
Average Emissions Year	834.1	268.5	8,503.8	2,666.2	3,900.4	13.263	692.54 8

See Appendix J for yearly emissions tables.

As previously stated, potential development on the leases would not cause existing development to exceed those that were projected in the BLM Regional Air Quality model. The modeled air quality projections fully capture past and present oil and gas development, including potential development on the leases. The analysis assumptions estimate that 1,398 new wells would be developed from these leases, which averages out to approximate 140 wells drilled each year over a 10-year period. The BLM Regional Air Quality model accounted for 2,784 new wells and 214 wells drilled each year. Model projected air quality impacts show no exceedances of NAAQS from new and existing oil and gas development.

Impacts of the Resource Conflict Avoidance Alternative (Alternative C)

The BLM performed an identical analysis as Alternative B for the Resource Conflict Avoidance Alternative. The BLM calculated CAP and HAP emissions for all leases included in this Alternative. Emissions for every pollutant are less in this Alternative compared to Alternative B. Emissions estimated for Alternative C are provided in Table 19 as short-term, long-term, and average year emissions. Emissions from leases outside Vernal FO would result in a maximum increase of 1% to existing emissions in each county for all CAPs and HAPs and a maximum increase of 2% for VOCs. Within the Vernal FO, emissions from the leases could increase CAPs and HAPs from about 1% to 5% compared to existing emissions in Duchesne and Uintah Counties (see **Error! Reference source not found.**), and a maximum increase of 4% for VOCs.

Table 19. Estimated Annual Emissions Estimates from Well Development and Production Operations of the Leases for Alternative C (TPY)

Year	PM ₁₀	PM _{2.5}	VOC	NO _x	CO	SO ₂	HAPs
Short-term Emissions (From Development Year 6)	108.35	32.45	62.21	609.40	292.05	3.85	6.60
Long-Term Emissions (From Production Year 10)	274.06	88.78	3,037.82	814.46	1,331.70	3.86	247.04
Average Emissions Year	230.3	74.1	2,348.0	736.2	1,076.9	3.662	191.218

3.5.2. Issue 2: Greenhouse Gas Emissions

How would potential development of the leases contribute to greenhouse gas (GHG) emissions at multiple scales?

Future development of leases under consideration could lead to emissions of carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O); the three most common greenhouse gases associated with oil and gas development. These GHG emissions would be emitted from activities occurring on the leases and from the consumption of any fluid minerals produced. However, the BLM cannot reasonably determine at the leasing stage whether, when, and in what manner a lease would be explored or developed. The uncertainty that exists at the time the BLM offers a lease for sale includes crucial factors that would affect actual GHG emissions and associated impacts, including but not limited to the future feasibility of developing the lease, well density, geological conditions, development type (vertical, directional, or horizontal), hydrocarbon characteristics, specific equipment used during construction, drilling, and production, abandonment operations, product transportation, and potential regulatory changes over the 10-year primary lease term. Actual development on a lease is likely to vary from what is analyzed in this EA and will be evaluated through site-specific environmental analysis when an operator submits an APD or plan of development to the BLM.

For the purposes of this analysis, the BLM has evaluated the projected potential GHG emissions from oil and gas development on the leases. Projected emissions estimates are based on past actual oil and gas development analyses and any available information from existing development within the State.

Further discussion of GHG emissions associated with BLM's oil and gas leasing actions and methodologies, are included in the most recent *BLM Specialist Report on Annual Greenhouse Gas Emissions and Climate Trends* (BLM, 2024) (Annual GHG Report). This report presents the estimated emissions of greenhouse gases attributable to development and consumption of fossil fuels produced on lands and mineral estate managed by the BLM. The Annual GHG Report is incorporated by reference as an integral part of this analysis and is available at <https://www.blm.gov/content/ghg/>.

Affected Environment

GHGs can have long atmospheric lifetimes, which allows them to become well mixed and uniformly distributed over the entirety of the Earth's surface no matter their point of origin

(EPA, 2025).

In this context, the incremental contribution to cumulative global GHGs from a single proposed land management action cannot be accurately translated into any localized effects in the area specific to the action. Currently, global climate models are unable to forecast local or regional effects on resources resulting from a specific subset of emissions.

Table 20 shows the total estimated GHG emissions from fossil fuels at the global, national, and state scales over the last five years in megatonnes (Mt) per year of carbon dioxide equivalent (CO₂e). Chapter 3 of the Annual GHG Report contains additional information on GHGs and an explanation of CO₂e. State and national energy-related CO₂ emissions include emissions from fossil fuel use across all sectors (residential, commercial, industrial, transportation, and electricity generation) and are released at the location where the fossil fuels are consumed.

Additional information on current state, national, and global GHG emissions as well as the methodology and parameters for estimating emissions from BLM fossil fuel authorizations and cumulative GHG emissions is included in the Annual GHG Report (see Chapters 5, 6, and 7).

Table 20. Global, U.S., and State Fossil Fuel GHG Emissions 2018 - 2022 (Mt CO₂e/yr)

Scale	2018	2019	2020	2021	2022
Global	37,832.0	37,825.0	35,944.0	38,082.0	38,522.0
U.S.	4,989.8	4,855.9	4,344.9	4,639.1	4,699.4
Utah	60.0	60.4	56.7	61.3	NA

Source: Annual GHG Report, Chap 9, Table 9-2 (Global) Chap. 5, Table 5-1 (U.S.) and GHG DB (2024)
Worksheet:state_ei, (State).

Mt (megatonne) = 1 million metric tons

NA = Not Available

The analysis of GHGs contained in this EA includes estimated emissions from the lease as described above. An assessment of GHG emissions from other BLM fossil fuel authorizations, including coal leasing and oil and gas leasing and development, is included in the Annual GHG Report in Chapter 7. The Annual GHG Report includes estimates of reasonably foreseeable GHG emissions related to BLM lease sales anticipated during the fiscal year, as well as the best estimate of emissions from ongoing production, and development of leases sold in previous lease sales. It is, therefore, an estimate of cumulative GHG emissions from the BLM Federal mineral estate based on actual production and statistical trends as they are presently known.

The methodologies used in the Annual GHG Report provide estimates of foreseeable short-term and projected long-term GHG emissions from activities across the BLM's Federal mineral estate. The foreseeable short-term methodology includes a trends analysis of (1) leased federal lands that are held-by-production³, (2) approved applications for permit to drill (APDs), and (3) leased lands from competitive lease sales projected to occur over the next annual reporting cycle (12 months). The data is used to provide a 30-year life of lease projection of potential emissions from all Federal oil and gas activities and potential lease actions over the next 12 months. The projected long-term methodology uses oil and gas production forecasts from the Energy Information Administration (EIA) to estimate GHG emissions out to 2050 that could occur from

³ [held-by-production](#) - A provision in an oil or natural gas property lease that allows the lessee to continue drilling activities on the property as long as it is economically producing a minimum amount of oil or gas. The held-by-production provision thereby extends the lessee's right to operate the property beyond the initial lease term.

past, present, and future development of Federal fluid minerals. For both methodologies, the emissions are calculated using life-cycle-assessment data and emission factors. These analyses are the basis for projecting GHG emissions from leases that are likely to go into production during the analysis period of the Annual GHG Report and represent both a hard look at GHG emissions from oil and gas leasing and the best available estimate of reasonably foreseeable cumulative emissions related to any one lease sale or set of lease sales that could occur annually across the entire federal onshore mineral estate.

Table 21 presents the summation of the 30-year life-of-project emissions estimates for both the short- and long-term as previously described for each state where federal mineral actions have been authorized.

A detailed explanation of the short-term and long-term emissions estimate methodologies are provided in sections 6.6 and 6.7 of the Annual GHG Report.

Table 21. GHG Emissions from Past, Present, and Reasonably Foreseeable Federal Onshore Lease Development (Megatonnes CO₂e)

State	Existing Wells (Report Year)	Existing Wells (Projected)	Approved APDs	New Leasing	Short-Term Foreseeable Totals	Long-Term Projected Totals
AL	0.63	9.48	0.00	0.18	9.65	18.73
AK	1.27	19.11	30.07	43.96	93.14	35.64
AZ	0.00	0.00	0.00	0.00	0.00	0.00
AR	0.61	9.63	0.71	0.24	10.57	18.00
CA	4.92	68.59	0.32	2.26	71.18	124.75
CO	41.66	361.42	19.23	14.34	394.99	1,205.41
ID	0.00	0.00	0.00	0.29	0.30	0.00
IL	0.01	0.09	0.00	0.02	0.11	0.16
IN	0.00	0.00	0.00	0.02	0.02	0.00
KS	0.22	3.24	0.05	0.27	3.57	6.29
KY	0.01	0.07	0.00	0.03	0.10	0.24
LA	4.79	59.44	28.10	16.86	104.40	140.76
MD	0.00	0.00	0.00	0.00	0.00	0.00
MI	0.05	1.05	0.00	0.29	1.34	1.58
MS	0.19	2.57	0.19	0.38	3.14	4.80
MT	2.06	21.01	1.80	2.08	24.90	53.94
NE	0.01	0.21	0.00	0.03	0.24	0.35
NV	0.11	0.82	0.01	0.04	0.87	2.63
NM	463.78	3,298.82	795.77	89.69	4,184.28	12,321.64
NY	0.00	0.00	0.00	0.00	0.01	0.01
ND	37.69	315.95	24.48	7.14	347.56	985.07
OH	0.17	1.60	0.00	2.65	4.25	4.97
OK	1.09	10.74	1.66	1.18	13.58	30.83
OR	0.00	0.00	0.00	0.12	0.12	0.00
PA	0.00	0.03	0.00	0.67	0.70	0.07
SD	0.08	1.41	0.21	0.11	1.72	2.19
TN	0.00	0.00	0.00	0.00	0.00	0.00
TX	2.72	30.11	11.79	3.28	45.17	80.01
UT	17.54	220.02	17.98	2.35	240.35	493.60
VA	0.01	0.13	0.00	0.03	0.15	0.24
WV	0.00	0.04	0.00	0.59	0.62	0.08

State	Existing Wells (Report Year)	Existing Wells (Projected)	Approved APDs	New Leasing	Short-Term Foreseeable Totals	Long-Term Projected Totals
WY	107.01	946.69	120.38	105.55	1,172.61	3,005.64
Total Onshore Federal	687	5,382	1,053	295	6,730	18,538

Source: BLM Annual GHG Report, Section 7

Recent short-term energy outlook (STEO) reports published by the EIA (<https://www.eia.gov/outlooks/steo/data>) (EIA, 2025) predict that the world's oil and gas supply and consumption will increase over the next 18-24 months. The STEO projections are useful for providing context for the cumulative discussion as the global forecast models used for the STEO are not dependent on whether the BLM issues onshore leases but are based on foreseeable short-term global supply and demand and include oil and gas development /operations on existing U.S. onshore leases. Recent STEOs includes the following projections for the next two years:

- U.S. liquid fuels consumption is projected to increase to 20.50 million barrels per day (b/d) in 2025 up from 20.31 million b/d in 2024 and decrease slightly in 2026 to 20.44 million b/d.
- U.S. crude oil production is expected to average 13.4 million b/d in 2025 and rise to 13.5 million b/d in 2026.
- Global liquid fuels consumption is expected to grow from 103.7 million barrels per day in 2025 and increase to 104.6 million barrels per day in 2026. U.S. Liquid Natural Gas exports are expected to increase to 15 billion cubic feet/day (Bcf/d) in 2025 and 16 Bcf/d in 2026. U.S. Coal production is expected to total 506 million short tons (MMst) in 2025, relatively unchanged from 2024 production levels.
- Renewable energy generation is expected to increase to 25% of U.S. electricity generation in 2025 and further increase to 27% in 2026.

The EIA 2025 Annual Energy Outlook (<https://www.eia.gov/outlooks/aeo/>) projects energy consumption increases through 2050 as population and economic growth outweighs efficiency gains. As a result, U.S. production of natural gas and petroleum and liquids will rise amid growing demand for exports and industrial uses. U.S. natural gas production increases by 15% from 2022 to 2050. Further discussion of past, present and projected global and state GHG emissions can be found in Chapter 5 of the Annual GHG Report.

At present, no Federal carbon budgets have been established, primarily due to the lack of consensus on how to allocate the global budget to each nation, and as such the existing global carbon budgets are not useful for BLM decision making, particularly at the leasing stage.

Environmental Effects

While the leasing action does not directly result in development that would generate GHG emissions, emissions from potential development of the leases can be estimated for the purposes of this analysis. There are four general phases of post-lease development processes that would generate GHG emissions: (1) well development (well site construction, well drilling, and well completion), (2) well production operations (extraction, separation, gathering), (3) mid-stream (refining, processing, storage, and transport/distribution), and (4) end-use (combustion or other

uses) of the fuels produced. While well development and production operation emissions (phases 1 and 2) occur on-lease and the BLM has authority over these activities, mid-stream and end-use emissions (phases 3 and 4) typically occur off-lease where the BLM has little to no authority. These activities, mid-stream and end-use emissions (phases 3 and 4) typically occur off-lease where the BLM has little to no authority.

Emissions inventories at the leasing stage are imprecise due to uncertainties including the type of mineral development (oil, gas, or both), scale, and duration of potential development, types of equipment (drill rig engine tier rating, horsepower, fuel type), and the mitigation measures that a future operator may propose in their development plan. Due to these uncertainties, the BLM applies several assumptions to estimate emissions at the leasing stage. The number of estimated well numbers per lease are based on State data for past lease development combined with per-well drilling, development, and operating emissions data from representative wells in the area (See Appendix J) – including the wells that are already in production on these leases. The precise amount of oil or gas that may be produced if the leases are developed is unknown, but existing well production is informative. For purposes of estimating production and end-use emissions, potential wells are assumed to produce oil and gas in similar amounts as existing nearby wells.

While the BLM has no authority to direct or regulate the end-use of the products, for this analysis, the BLM assumes all produced oil or gas will be combusted (such as for domestic heating or energy production). The BLM acknowledges that there may be additional sources of GHG emissions along the distribution, storage, and processing chains (commonly referred to as midstream operations) associated with production from the leases. These sources may include emissions of methane (a more potent GHG than CO₂ in the short term) from pipeline and equipment leaks, storage, and maintenance activities. These sources of emissions are highly speculative at the leasing stage, therefore, the BLM has chosen to assume that mid-stream emissions associated with leases for this analysis would be similar to the national level emissions identified by the Department of Energy's National Energy Technology Laboratory (NETL, 2009) (NETL, 2019). Section 6.5 of the Annual GHG Report includes a more detailed discussion of the methodology for estimating midstream emissions.

The emission estimates calculated for this analysis were generated using the assumptions previously described above. Emissions are presented for each of the four phases of post-lease development processes described above.

- Well development emissions occur over a short period and may include emissions from heavy equipment and vehicle exhaust, drill rig engines, completion equipment, pipe venting, and well treatments such as hydraulic fracturing.
- Well production operations, mid-stream, and end-use emissions occur over the entire production life of a well, which is assumed to be 30 years for this analysis based on the productive life of a typical oil/gas field.
- Production operation emissions may result from storage tank breathing and flashing, truck loading, pump engines, heaters and dehydrators, pneumatic instruments or controls, flaring, fugitives, and vehicle exhaust. Production operation emissions are estimated by multiplying the estimated ultimate recovery (EUR) of produced oil and gas with emissions factors from NETL life cycle analysis of U.S. oil and natural gas. Additional information on emission factors can be found in the Chapter 5 of the Annual GHG Report).

- Mid-stream emissions occur from the transport, refining, processing, storage, transmission, and distribution of produced oil and gas. Mid-stream emissions are estimated by multiplying the estimated ultimate recovery (EUR) of produced oil and gas with emissions factors from NETL life cycle analysis of U.S. oil and natural gas. Additional information on emission factors can be found in the Annual GHG Report (Chapter 6, Table 6-8 and 6-10).
- For the purposes of this analysis, end-use emissions are calculated assuming all produced oil and gas is combusted for energy use. End-use emissions are estimated by multiplying the EUR of produced oil and gas with emissions factors for combustion established by the EPA (Tables C-1 and C-2 to Subpart C of 40 CFR § 98). Additional information on emission factors and EUR factors can be found in the Annual GHG Report (Chapter 6).

Emission controls (e.g., vapor recovery devices, no-bleed pneumatics, leak detection and repair, etc.) can substantially limit the amount of GHGs emitted to the atmosphere, while offsets (e.g., sequestration, low carbon energy substitution, plugging abandoned or uneconomical wells, etc.) can remove GHGs from the atmosphere.

The EPA is the Federal agency charged with regulation of air pollutants and establishing standards for protection of human health and the environment. The EPA has issued regulations that will reduce GHG emissions from any development related to the proposed leasing action. These regulations include the New Source Performance Standard for Crude Oil and Natural Gas Facilities (40 CFR 60, OOOOa), Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After December 6, 2022, (40 CFR 60, OOOOb) and Waste Emissions Charge for Petroleum and Natural Gas Systems (40 CFR 99). These regulations impose emission limits, equipment design standards, and monitoring requirements on oil and gas facilities and a waste emissions charge on methane emissions that exceed 25,000 metric tonnes of CO₂e for applicable petroleum and natural gas facilities currently required to report under the Greenhouse Gas Reporting Rule. In December of 2023, the EPA released a separate rule under the Clean Air Act (CAA) to reduce methane and other harmful air pollutants from new and existing oil and gas operations nationwide, which includes the Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced after December 6, 2022, 40 C.F.R. § 60, Subpart OOOOb; and Emissions Guidelines for Greenhouse Gas Emissions from Existing Crude Oil and Natural Gas Facilities, Subpart OOOOc. These regulations impose emission limits, equipment design standards, and monitoring requirements on oil and gas facilities and a waste emissions charge on CH₄ emissions that exceed 25,000 metric tonnes of CO₂e for applicable petroleum and natural gas facilities currently required to report under the GHG Reporting Rule. A detailed discussion of existing regulations and Executive Orders that apply to BLM management of federal lands as well as current Federal and state regulations that apply to oil and gas development and production can be found in Chapter 2 of the Annual GHG Report.

The EPA approved a Federal Implementation Plan (FIP) that covers existing, new, and modified oil and gas emissions sources for the Uintah and Ouray (U&I) Reservation and surrounding Indian Country (EPA, 2022). The purpose of the U&I FIP is threefold: (1) improve air quality in the Uinta Basin by controlling sources that contribute to O₃ formation, (2) provide consistency between Indian Country air permitting regulations and State of Utah regulations in other parts of the Uinta Basin, and (3) provide streamlined oil and gas authorizations while ensuring emissions reductions. Details concerning the FIP are incorporated by reference in the Air Monitoring

Report (BLM, 2024) and include emissions control devices (e.g., combustors, closed loop systems), leak detection and repair, and equipment maintenance.

The Utah Department of Environmental Quality established administrative code R307-500 which applies to all oil and natural gas exploration, production, and transmission operations; well production facilities; natural gas compressor stations; and natural gas processing plants in Utah (not applicable on Indian Lands). These rules adopt emissions control standards established in 40 CFR Part 60, Subpart OOOO. Controls are required for pneumatic controllers, venting and flaring, tank truck loading, storage vessels, dehydrators, VOC control devices, stationary natural gas engines, and leak detection and repair requirements.

The majority of GHG emissions resulting from federal fossil fuel authorizations occur outside of the BLM's authority and control. These emissions are referred to as indirect emissions and generally occur off-lease during the transport, distribution, refining, and end-use of the produced federal minerals. The BLM's regulatory authority is limited to those activities authorized under the terms of the lease, which primarily occur in the "upstream" portions of natural gas and petroleum systems (i.e., the well-development and well-production phases). This decision authority is applicable when development is proposed on public lands and the BLM assesses the specific location, design and plan of development. In carrying out its responsibilities under NEPA, the BLM has developed Best Management Practices (BMPs) designed to reduce emissions from field production and operations. BMPs may include limiting emissions from stationary combustion sources, mobile combustion sources, fugitive sources, and process emissions that may occur during development of the lease. Analysis and approval of future development may include the application of BMPs within BLM's authority, included as Conditions of Approval (COAs), to reduce or mitigate emissions. Additional measures proposed at the project development stage may be incorporated as applicant-committed measures by the project proponent or added to necessary air quality permits. Additional information on mitigation strategies, including emissions controls and offset options, are provided in Chapter 10 of the Annual GHG Report.

Impacts of Alternative A

Under Alternative A, the BLM would not affirm the 195 leases. However, in the absence of a Land Use Plan amendment closing the lands to leasing, they could be considered for inclusion in future lease sales. Although no GHG emissions would result from new development on the leases under Alternative A, national demand for energy is not expected to differ regardless of BLM decision-making. Some emissions may occur from the potential reclamation and plugging of the 15 producing wells currently on some of the leases. Plugging and reclamation emissions would have a negligible short-term impact and a long-term benefit with no more ongoing emissions from operating these 15 wells.

The BLM does not have a model to estimate energy market substitutions at a spatial resolution needed for this onshore production scenario. Reductions in oil and natural gas produced from Federal leases may be partially offset by non-Federal production (state and private) in the United States (in which case the indirect GHG emissions would be similar), or overseas, in which case the GHG emissions would likely be higher, to the extent environmental protection requirements for production are less vigorous, and the produced energy would need to be physically transported into the United States. There may also be substitution of other energy resources to

meet energy demand. These substitution patterns will be different for oil and gas because oil is primarily used for transportation, while natural gas is primarily used for electricity production and manufacturing, and to a lesser degree by residential and commercial users (AEO, 2023). The effect of substitution between different fuel sources on indirect GHG emissions depends on the replacement energy source. For example, coal is a relatively more carbon intense fuel than natural gas and hydroelectricity is the least carbon intense energy source (see Table 10-3 of the Annual GHG Report (BLM, 2024). In the transportation sector, alternatives to oil are likely to be less carbon intensive.

Finally, substitution across energy sources or oil and gas production from other locations may not fully meet the energy needs that would otherwise have been realized through production from these leases. Price effects may lower the market equilibrium quantity demanded for some fuel sources, which could lead to a reduction in indirect GHG emissions. These three effects (geographic substitution, fuel switching, and price effects) are likely to occur in some combination under Alternative A, but the relative contribution of each is unknown. Regardless, GHG emissions under Alternative A are not expected to be zero.

Impacts of the Proposed Action (Alternative B)

Under Alternative B, BLM would affirm the 195 leases thus impacts from foreseeable development would occur. Table 22 shows the estimated maximum year and average year GHG emissions over the life of the lease for both 100-yr and 20-yr horizons metric tonnes (t).

Table 22. Estimated Direct and Indirect Emissions from Leases on an Annual and Life of Lease Basis (tonnes)

	CO ₂	CH ₄	N ₂ O	CO ₂ e (100-yr)	CO ₂ e (20-yr)
Max Year	13,316,095	38,835.89	68.037	14,491,978	16,538,630
Average Year	3,935,507	11,830.14	19.327	4,293,321	4,916,769
Life of Lease	153,484,766	461,375.30	753.742	167,439,522	191,754,001

Table 23 lists the estimated direct (well development and production operations) and indirect (mid-stream and end-use) GHG emissions in metric tonnes (t) for the subject leases over the average 30-year production life of the lease. In summary, potential GHG emissions from the Proposed Action could result in GHG emissions of 167,439,522 t CO₂e over the life of the lease, with 8.9% of emissions occurring on lease and within. BLM's decision authority. More emissions detail is provided in Appendix J.

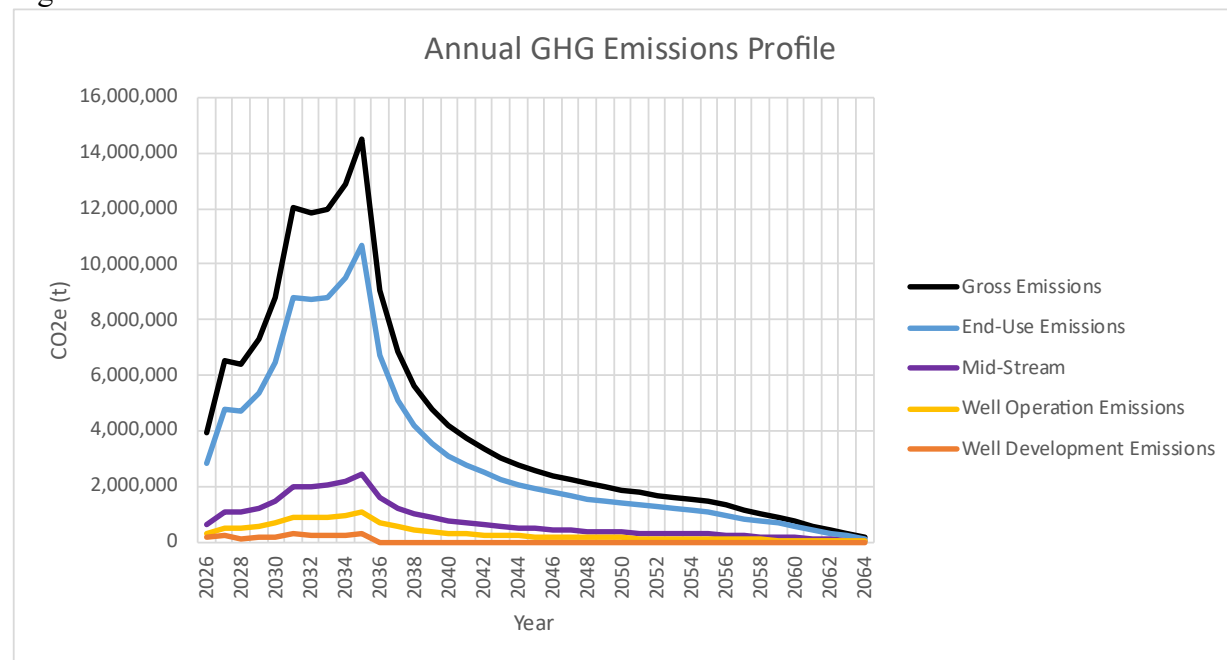
Table 23. Estimated Life of Lease Emissions from Well Development, Well Production Operations, Mid-stream, and End-use (tonnes)

Activity	CO ₂	CH ₄	N ₂ O	CO ₂ e (100-yr)	CO ₂ e (20-yr)	Percent of Total
Well Development	2,087,312	391.44	13.980	2,102,793	2,123,422	1.3%
Well Production Operations	7,167,551	187,715.9 6	44.956	12,773,760	22,666,391	7.6%
Mid-Stream	20,862,120	270,363.1 7	295.315	28,999,563	43,247,702	17.3%

End-Use	123,367,784	2,904.73	399.491	123,563,406	123,716,485	73.8%
Total (Life of Lease)	153,484,766	461,375.30	753.742	167,439,522	191,754,001	100%

GHG emissions vary annually over the production life of a well due to declining production rates over time. Figure 1 shows the estimated GHG emissions profile over the production life of a typical lease including the four phases of lease development processes: well development, well production operations, mid-stream, end-use, and gross (total of well development, well production, mid-stream, and end-use) emissions.

Figure 1 Estimated GHG Emissions Profile over the Life of a Lease for Alternative A



To put the estimated GHG emissions for this lease sale in a relatable context, potential emissions that could result from development of the leases for this sale can be compared to other common activities that generate GHG emissions. The EPA GHG equivalency calculator (EPA , 2022) can be used to express the potential average year GHG emissions on a scale relatable to everyday life (<https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>). For instance, the projected average annual GHG emissions from potential development of the subject lease are equivalent to 1,000,774 gasoline-fueled passenger vehicles driven for one year, 894,815 homes' electricity use for one year, 1.1 coal-fired power plants operating for one year, or could supply 11.2 natural gas-fired power plants for one year.

Table 24 compares the estimated annual lease sale emissions to existing Federal fossil fuel (oil, gas, and coal) emissions, State, and U.S. total GHG emissions.

Table 24. Comparison of Lease Sale Emissions to Other Sources (Megatonnes)

Reference	Mt CO2e ¹ (Per Year)
Lease Sale Emissions (Average Year)	4.293

UT Federal-Onshore (Oil & Gas) ²	17.54
U.S. Federal-Onshore (Oil & Gas) ²	686.62
U.S. Federal- Onshore and Offshore (Oil & Gas) ²	1,092.94
U.S. Federal-Onshore (Oil, Gas and Coal) ²	1,066.14
UT Fossil Fuel Emissions ³	61.30
U.S. Total	7,213.47

1 – Mt (megatonne) = 1 million metric tons. Estimates are based on 100-GWP values.

2 – Values come from the Annual GHG Report. Tables ES-1 and ES-2 and Figure ES-1.

3 - Total state emissions from all sectors is found in Table 5-2 of the Annual GHG Report.

Impacts of the Resource Conflict Avoidance Alternative (Alternative C)

The emissions for this alternative are presented in Table 25 and are calculated using the same methodology as described for the Proposed Action emissions. Potential GHG emissions from the Resource Conflict Avoidance Alternative could result in GHG emissions of 59,692,726t CO₂e over the life of the lease, with 8.6% of emissions occurring on lease and within. BLM's decision authority. More emissions detail is provided in Appendix J. Projected annual emissions can be compared to existing Federal fossil fuel (oil, gas, and coal) emissions, State, and U.S. total GHG emissions in Table 20. The projected average annual GHG emissions from expected development of the leases are equivalent to 356,779 gasoline-fueled passenger vehicles driven for one year, the emissions from 319,004210,493 homes' electricity use for one year, 0.4 coal-fired power plants operating for one year, or could supply 4.0 natural gas-fired power plants for one year.

Table 25. Estimated Life of Lease Emissions from Well Development, Well Production Operations, Mid-stream, and End-use (tonnes)

Activity	CO ₂	CH ₄	N ₂ O	CO ₂ e (100-yr)	CO ₂ e (20-yr)	Percent of Total
Well Development	576,325	108.08	3.860	580,600	586,295	1.0%
Well Production Operations	2,546,442	67,464.74	13.362	4,560,539	8,115,931	7.6%
Mid-Stream	7,535,712	100,471.93	106.117	10,558,745	15,853,616	17.7%
End-Use	43,926,887	1,000.17	132.419	43,992,842	44,045,551	73.7%
Total (Life of Lease)	54,585,366	169,044.92	255.759	59,692,726	68,601,394	100%

3.5.3. Issue 3: Greater Sage-grouse

How would potential development of the leases impact GRSG and its habitat within PHMA and GHMA in the population areas that overlap with the leases?

Greater sage-grouse (GRSG) is a BLM-UT sensitive species (managed under BLM Manual 6840). The BLM must ensure that actions authorized, funded, or carried out do not contribute to the need to list any of these species under the Endangered Species Act (ESA). In the 2015 GRSG Approved Resource Management Plan Amendments (ARMPA), BLM identified approximately 7.2 million acres of GRSG habitat - Priority Habitat Management Areas (PHMA) (5,548,837 acres) and General Habitat Management Areas (GHMA) (1,686,818 acres) in Utah. (BLM, 2015). BLM manages approximately 3.1 million acres of BLM-administered surface acres and mineral estate in PHMA, 840,862 acres of BLM-administered surface acres and mineral estate in GHMA, and 42,069 acres as Occupied Anthro Mountain (National Forest System Lands) in

Utah.

Eighty-one (81) of the leases in this EA are within the GRSG PHMA in Rich, Sheeprock, and Parker Mountain Population Areas; and GHMA in the Lucerne, Uinta Mountain, and Anthro Mountain Population Areas. Five of the 81 leases overlap PHMA for a total of 2,008.53 acres. Portions of three leases are within the Sheeprocks PHMA (949.60 acres), portions of one lease are in Parker Mountain PHMA (646.03 acres), and one lease is fully within the Rich PHMA (412.90 acres). The remaining 76 leases are either wholly or partially within GHMA for a total of 69,884.15 acres in GHMA. Refer to Table 27 below.

The Population Areas where the leases occur comprise approximately 4,296,722 total surface acres of PHMA and GHMA (1,880,902 total BLM surface acres). The scope for the analysis area for GRSG is the PHMA and GHMA that is intersected by the eighty-one (81) leases, which is a subset of the PHMA and GHMA in the larger Population Areas and totals approximately 71,551 surface acres of PHMA and GHMA. The scope for analysis was chosen based on the PHMA and GHMA areas identified in the 2015 GRSG ARMPA (BLM, 2015).

Affected Environment

GRSG and their habitat have been an important issue for the BLM and partner agencies across the west. GRSG occupy about one-half of their historic range (Schroeder, 2004). On October 2, 2015, the U.S. Fish and Wildlife Service (USFWS) published its finding that listing of the GRSG under the Endangered Species Act of 1973 was not warranted. The finding was based in part on the conservation strategies through range-wide planning efforts which led the USFWS to conclude that “the primary threats to GRSG have been ameliorated by conservation efforts implemented by Federal, State, and private landowners.” (Federal Register, 2015).

Rich Population Area

One lease (UTU93433) is within the Rich PHMA. This lease is 412.90 acres and is 100% within PHMA. One of Utah’s largest populations, the Rich Population Area is in the northeast corner of Utah and links to populations in Idaho and Wyoming. The Rich Population Area comprises 1,050,901 total surface acres of PHMA and GHMA (150,234 total BLM surface acres). This population is composed of large, relatively contiguous habitats and is connected with the large Wyoming GRSG populations. Anthropogenic disturbances are present within the population area, and GRSG winter habitat has been reduced due to mechanical vegetation treatments to thin sagebrush density in Rich County over the last three to four decades. Large amounts of remaining upper elevation, contiguous habitat likely makes the populations more resilient than more habitat-restricted GRSG populations in Utah. Wyoming big sagebrush, low sagebrush, and black sagebrush are dominant in the lower elevations with patches of basin big sagebrush. Higher elevations are a mix of mountain big sagebrush mixed with aspen, mountain mahogany and conifers. The nearest occupied lek⁴ is within 3.4 miles of the lease.

Sheeprock Population Area

Three leases (UTU92487, UTU92765, and UTU92807) totaling 5,665.92 acres of which 949.60 acres are within the Sheeprock PHMA in the vicinity of Dog Valley. The Sheeprock Population

4

A lek that has been active during at least one strutting season within the last 10 years.

Area comprises 831,099 total surface acres of PHMA and GHMA (401,295 total BLM surface acres). The nearest occupied lek is 4.6 miles from the closest lease. In 2015, active male lek counts within the Sheeprock Population Area were much reduced compared to 2006 active male lek counts. Because of this long-term downward population, a hard trigger had been met. Adaptive management thresholds were identified in Appendix A of the 2015 GRSG ARMPA (BLM, 2015), which resulted in portions of the population that were identified in the ARMPA as GHMA being changed to PHMA with corresponding changes in management to reflect the higher prioritization in this area, as well as an increased emphasis in habitat restoration and protection (e.g., no surface occupancy, disturbance cap, parcel prioritization). Recent lek counts and trend analysis show the population is stable to increasing. This landscape is generally rolling/low mountain topography with higher amounts of sagebrush at lower elevation within broader valleys/basins and juniper dominated communities on steeper slopes and ridgelines. Sagebrush does occur within juniper stands although scattered and at reduced densities. It is likely the juniper community had a substantial sagebrush component historically under a more natural disturbance regime, but over the years, the vegetation community has been altered by juniper encroachment, range vegetation type conversions, wildfire, and wildfire rehabilitation. As part of the hard trigger, a variety of habitat improvement projects have occurred within the population area primarily associated with pinyon-juniper removal and seeding.

Parker Mountain Population Area

One lease (UTU93250), totaling 1,842.90 acres of which 646.03 acres, is within the Parker Mountain PHMA north of the Fremont Bench near the Mill Meadow Reservoir and Fremont River. The Parker Mountain Population Area comprises 754,204 total surface acres of PHMA and GHMA (214,271 total BLM surface acres). The Parker Mountain PHMA is on the Awapa and Aquarius Plateau, which includes pockets of habitat on Monroe Mountain and Sevier Plateau, Grass Valley, and John's Valley. The Parker Mountain area includes diverse habitats ranging from low elevation Wyoming big sagebrush in the valleys up to mountain shrub/aspen at 10,000 feet elevation. However, vegetation within the lease is largely Wyoming big sagebrush in the valleys with some encroaching pinyon pine-juniper on the edges transitioning to a more dominant pinyon pine-juniper woodland site at approximately 7,000 feet elevation. Mill Meadow Reservoir is located within the lease. The water from the reservoir flows into an intact riparian corridor with a cottonwood/willow complex. The riparian corridor contains several dispersed campsites, reflecting its use for recreation. In 2021, the population hit a hard trigger; however, has since rebounded and is increasing.

Lucerne Population Area

The Lucerne Population Area comprises 37,526 total surface acres of PHMA and GHMA (0 total BLM surface acres). Lucerne is north of the Uinta Mountains near the Wyoming border and has no known leks; however, GRSG use the area coming from the adjacent Wyoming Basin GRSG population. This area ranges in elevation between 7,200 and 9,000 feet and is largely private and Trust Land owned. Vegetation ranges from Wyoming big sagebrush communities with pinyon pine-juniper encroachment and high elevation conifer. The majority of GRSG are using the area west of Manila near Phil Pico Mountain. Four leases overlap with the Lucerne GHMA: UTU93979, UTU93980, UTU93981, and UTU93982. The leases comprise 5,193.05 acres of which 3,138.78 acres are within GHMA. The leases do not overlap PHMA in the Lucerne Population Area.

Uinta Mountain Population Area

The Uinta Mountain Population Area comprises 1,544,903 total surface acres of PHMA and GHMA (550,602 total BLM surface acres). The Uinta Mountain population area includes seven separate habitat and distinct populations. The larger Uinta Mountain Population Area is comprised of a variety of PHMA and GHMA; however, some of the GHMA, while it is considered part of the larger population area, are standalone polygons isolated or disconnected from the PHMA. Threats that USFWS noted in the Conservation Objectives Team (COT) report for the Uintah population area include fire, conifer encroachment, weeds/annual grasses, energy, mining, infrastructure, recreation, and urbanization. There are 66 leases within the Uinta population area within the Halfway Hollow/McCoy Flats, Deadman's Bench, East Bench and Book Cliffs GHMAs.

Eight (8) leases (UTU92679, UTU92680, UTU92682, UTU92683, UTU92684, UTU93946, UTU93947, and UTU93948) totaling 9,164.15 acres of which 8,657.66 acres are in the Halfway Hollow/McCoy Flats GHMA. The Halfway Hollow/McCoy Flats area is characterized by relatively contiguous habitat in the northern portion with energy and human-related fragmentation in the southern portion. The area is characterized by Wyoming big sagebrush in the low elevations, mountain sagebrush in the higher elevations, and some pinyon-juniper encroachment. There is an active lek⁵ in the PHMA north of the Halfway Hollow/McCoy Flats area, over 3.5 miles away from the nearest lease.

The populations in Deadman's Bench, East Bench and the Book Cliffs GHMA have steadily declined and one of the primary threats in the low elevations may be gas development, which is extensive in proximity to many of the leases and the unoccupied leks in this area.

Thirty-seven (37) leases (see Table 107 and Table 108 of Appendix K) are within the Deadman's Bench GHMA. These leases total 54,016.78 acres of which 42,473.49 acres are within GHMA. Deadman's Bench is a dry, low elevation Wyoming big sagebrush site. Nonnative weeds are common; in particular, cheatgrass is abundant and is a management concern. Limited telemetry monitoring indicates some Deadman's Bench GRSG may stay in the area year-round. Other GRSG have moved north of Deadman's Bench into Snake John Reef and Thunder Ranch (10-13 miles north of Highway 40). During sagebrush removal projects, since 2015, winter GRSG use in the area has been verified, but the origin of the GRSG is unknown. There are two unoccupied leks⁶ within the Deadman's Bench area, where all counts completed by Utah Division of Wildlife Resources in the past 10 years have been zero (H. Tally (UDWR), personal communication, May 2, 2025).

Twenty-one (21) leases (see Table 107 and Table 108 of Appendix K) are within the East Bench/Book Cliffs GHMA. These leases total 30,798.82 acres of which 14,359.90 acres are within GHMA. This area is primarily Wyoming big sagebrush and black sagebrush in the low elevation and pinyon-juniper with pockets of mountain sagebrush in the upper elevations. This population has steadily declined and one of the primary threats in the low elevations may be gas development, which is extensive in proximity to the leases and the leks in this area. Threats that USFWS noted in the COT report for the Uinta population area include fire, conifer encroachment, weeds/annual grasses, energy, mining, infrastructure, recreation, and

⁵ A lek that has been attended by male sage-grouse during the annual strutting season.

⁶ A lek where no strutting males were counted in > 10 years.

urbanization. The East Bench lek counts have steadily declined since 2005. There are three inactive leks⁷ and two historical leks⁸ within the East Bench area; all counts completed by Utah Division of Wildlife Resources in the past 10 years have been zero (H. Tally (UDWR), personal communication, May 2, 2025).

Anthro Mountain Population Area

There are two GHMA polygons east of Anthro Mountain that are located in Sand Wash and Big Wash. The Anthro Population Area comprises 78,089 total surface acres of PHMA and GHMA (24,567 total BLM surface acres). These habitat areas contain important winter habitat (personal communication with UDWR and BLM biologists). Six (6) leases (UTU91937, UTU93260, UTU93261, UTU93881, UTU93882, and UTU94135) are within these two GHMA areas totaling 5,768.71 acres of which 1,254.32 acres are within GHMA. Due to their proximity to Anthro Mountain, habitat characteristics in the area are very similar. The area is composed of naturally fragmented sagebrush across a large plateau dissected with a series of drainages leading to the Green River Basin. These GHMA polygons are within 5-13 miles of the Anthro Mountain population and the Anthro GRSG have been documented moving up to 25 miles. Energy development is common in these areas. Habitat within these areas range from high-elevation Wyoming big sagebrush to drier low elevation black sagebrush areas. Pinyon-juniper is prominent in the drainages and some encroachment in the black sagebrush communities. The Anthro Mountain population is a small collection of separate blocks of habitat and is a small population, which may make it more susceptible to stochastic events. There is one unoccupied lek in the Sand Wash GHMA area.

The primary habitat values based on modeled seasonal habitats includes a variety of nesting, winter, and summer habitat. Refer to Table 26. for acres of PHMA or GHMA, seasonal habitat values, and proximity of subject leases to leks.

Table 26. Acres of PHMA, GHMA, Seasonal Habitat Values and Leks associated with the Leases

Lease #	Population Area	Lease Size (Acres)	Percent (%) of Lease in PHMA	Percent (%) of Lease in GHMA	Occupied Leks within 3.1 Miles ⁹ of Leases	Sage-Grouse Seasonal Habitat Values (Acres) Overlapping HMA Per Lease		
						Nesting	Winter	Summer
UTU91937	Anthro Mountain	320.49	0	24.25	0	0	77.75	0
UTU91953	Uinta Mountain	79.81	0	22.62	0	0	18.07	17.89
UTU92487	Sheeprock	2182.03	13.4	0	0	154.14	292.6	26.68
UTU92679	Uinta Mountain	930.14	0	100	0	76.78	575.51	863.1
UTU92680	Uinta Mountain	1455.5	0	100	0	188.85	0	1.61

⁷ A lek where no strutting activity has occurred during the course of a season.

⁸ A lek that, in the past was utilized by strutting sage-grouse for many seasons, but has not seen activity for > 10 years.

⁹ BLM applies lek buffer distances in accordance with Appendix B of the 2015 GRSG ARMPA which identifies a lek buffer distance for infrastructure related to energy development within 3.1 miles of leks. It is reasonable to assume that leks within 3.1 miles of a well could experience negative impacts.

Lease #	Population Area	Lease Size (Acres)	Percent (%) of Lease in PHMA	Percent (%) of Lease in GHMA	Occupied Leks within 3.1 Miles ⁹ of Leases	Sage-Grouse Seasonal Habitat Values (Acres) Overlapping HMA Per Lease		
						Nesting	Winter	Summer
UTU92682	Uinta Mountain	1780.25	0	100	0	0	412.4	609.66
UTU92683	Uinta Mountain	1150.37	0	100	0	0	980.39	379.01
UTU92684	Uinta Mountain	1750.39	0	71.06	0	0	0	2.83
UTU92686	Uinta Mountain	637.52	0	99.98	0	0	637.67	637.67
UTU92701	Uinta Mountain	319.88	0	100	0	0	198.5	0
UTU92702	Uinta Mountain	718.55	0	100	0	0	0	0
UTU92703	Uinta Mountain	358.74	0	76.73	0	0	0	0
UTU92704	Uinta Mountain	553.01	0	100	0	0	0	0
UTU92708	Uinta Mountain	2399.11	0	60.06	0	0	1441.07	1172.86
UTU92709	Uinta Mountain	1577.77	0	1.79	0	0	28.19	23.75
UTU92710	Uinta Mountain	1924.72	0	56.28	0	0	1083.34	386.67
UTU92711	Uinta Mountain	2561.53	0	45.95	0	0	1177.24	0
UTU92712	Uinta Mountain	2375.07	0	90.92	0	293.25	2159.62	2148.31
UTU92713	Uinta Mountain	1922.87	0	100	0	0	1923.15	747.06
UTU92714	Uinta Mountain	1523.24	0	100	0	0	1523.49	0
UTU92765	Sheeprock	1309.81	48.23	0	0	617.46	632.07	508.17
UTU92807	Sheeprock	2164.08	1.18	0	0	25.53	25.53	25.18
UTU93250	Parker Mountain	1842.9	35.05	0	0	627.84	627.84	627.84
UTU93260	Anthro Mountain	851.58	0	56.38	0	0	0	0
UTU93261	Anthro Mountain	359.21	0	100	0	0	359.43	0
UTU93433	Rich	412.9	100	0	0	413.23	413.23	413.23
UTU93881	Anthro Mountain	1198.08	0	0.08	0	0	0	0
UTU93882	Anthro Mountain	1119.23	0	0.57	0	0	6.36	0
UTU93884	Uinta Mountain	40.29	0	100	0	0	0	0
UTU93888	Uinta Mountain	650.58	0	100	0	0	109.66	0

Lease #	Population Area	Lease Size (Acres)	Percent (%) of Lease in PHMA	Percent (%) of Lease in GHMA	Occupied Leks within 3.1 Miles ⁹ of Leases	Sage-Grouse Seasonal Habitat Values (Acres) Overlapping HMA Per Lease		
						Nesting	Winter	Summer
UTU93899	Uinta Mountain	1600.31	0	1.23	0	0	18.12	1.36
UTU93900	Uinta Mountain	1681.73	0	29.44	0	0	467.3	23.65
UTU93901	Uinta Mountain	1465.51	0	82.96	0	0	1216.3	962.74
UTU93902	Uinta Mountain	1439.68	0	94.35	0	12.83	1358.8	1148.22
UTU93903	Uinta Mountain	1892.91	0	95.02	0	0	1799.28	1770.91
UTU93904	Uinta Mountain	1922.56	0	91.39	0	2.12	1757.07	1283.2
UTU93905	Uinta Mountain	2535.35	0	24.92	0	84.23	632.17	632.17
UTU93906	Uinta Mountain	2558.79	0	68.16	0	0	1744.72	1628.38
UTU93907	Uinta Mountain	2548.54	0	0.34	0	0	8.6	8.6
UTU93910	Uinta Mountain	856.01	0	5.3	0	0	45.2	0.92
UTU93911	Uinta Mountain	1916.46	0	3.38	0	0	0	0
UTU93913	Uinta Mountain	2235.03	0	34.2	0	0	0	0
UTU93914	Uinta Mountain	279.02	0	71.6	0	0	0	0
UTU93915	Uinta Mountain	1437.79	0	100	0	0	530.96	204.97
UTU93916	Uinta Mountain	1290.23	0	100	0	0.1	1290.49	1232.21
UTU93917	Uinta Mountain	1765.74	0	100	0	0	1057.68	101.48
UTU93918	Uinta Mountain	1496.83	0	100	0	1041.26	1496.59	1496.59
UTU93919	Uinta Mountain	1600.74	0	100	0	115.58	1601.09	1304.41
UTU93920	Uinta Mountain	1279.2	0	70.99	0	805.13	908.31	908.31
UTU93921	Uinta Mountain	163.54	0	17.85	0	0	29.19	26.8
UTU93922	Uinta Mountain	1868.75	0	12.93	0	0	241.63	80.53
UTU93923	Uinta Mountain	1833.59	0	53.04	0	0	235.57	561.72
UTU93924	Uinta Mountain	2559.68	0	50.33	0	0	67.42	1052.74

Lease #	Population Area	Lease Size (Acres)	Percent (%) of Lease in PHMA	Percent (%) of Lease in GHMA	Occupied Leks within 3.1 Miles ⁹ of Leases	Sage-Grouse Seasonal Habitat Values (Acres) Overlapping HMA Per Lease		
						Nesting	Winter	Summer
UTU93925	Uinta Mountain	2423.88	0	99.91	0	0	2389.25	750.64
UTU93926	Uinta Mountain	1837.47	0	100	0	0	672.92	0
UTU93927	Uinta Mountain	2234.62	0	100	0	0	0	0
UTU93928	Uinta Mountain	2263.62	0	99.76	0	880.77	2230.84	2180.99
UTU93929	Uinta Mountain	2081.44	0	100	0	1368.57	2081.74	2081.74
UTU93930	Uinta Mountain	1434.13	0	100	0	0	674.31	582.58
UTU93931	Uinta Mountain	1121.37	0	99.47	0	1112.04	1115.58	1115.58
UTU93933	Uinta Mountain	1800.2	0	100	0	1181.68	1800.51	1800.51
UTU93934	Uinta Mountain	1160.18	0	100	0	1160.39	1160.39	1160.39
UTU93935	Uinta Mountain	776.99	0	0.21	0	0.04	1.64	1.64
UTU93936	Uinta Mountain	1931.69	0	100	0	0	1932.03	4.65
UTU93937	Uinta Mountain	1358.81	0	88.54	0	0	1200.85	0
UTU93938	Uinta Mountain	1663.57	0	24.6	0	0	395.69	0
UTU93939	Uinta Mountain	2151.51	0	2.41	0	0	0	0
UTU93946	Uinta Mountain	254.14	0	100	0	254.27	254.27	254.27
UTU93947	Uinta Mountain	1685.26	0	100	0	1685.5	1685.76	1685.76
UTU93948	Uinta Mountain	158.11	0	100	0	158.2	158.2	158.2
UTU93959	Uinta Mountain	1436.03	0	32.7	0	0		3.41
UTU93962	Uinta Mountain	79.99	0	100	0	0	0	0
UTU93963	Uinta Mountain	80.47	0	100	0	0	80.49	80.49
UTU93965	Uinta Mountain	629.21	0	35.28	0	0	0	85.67
UTU93966	Uinta Mountain	279.22	0	56.34	0	0	53.52	122.18
UTU93968	Uinta Mountain	2200.54	0	100	0	128.44	1674.67	1566.71
UTU93979	Lucerne	719.28	0	72.97	0	525.22	525.22	525.22

Lease #	Population Area	Lease Size (Acres)	Percent (%) of Lease in PHMA	Percent (%) of Lease in GHMA	Occupied Leks within 3.1 Miles ⁹ of Leases	Sage-Grouse Seasonal Habitat Values (Acres) Overlapping HMA Per Lease		
						Nesting	Winter	Summer
UTU93980	Lucerne	2062.09	0	82.9	0	1461.45	1553.97	1553.97
UTU93981	Lucerne	1268.72	0	38.37	0	281.91	281.91	281.91
UTU93982	Lucerne	1142.96	0	36.55	0	50.95	417.96	417.96
UTU94135	Anthro Mountain	1920.12	0	17.18	0	0	0	0

Anthropogenic disturbances, both within and in proximity to the leases located in the Uinta and Anthro Mountain areas are moderate to high due to existing infrastructure for oil and gas. Leases UTU92487, UTU92765, UTU92807, UTU93250, and UTU93433 are relatively intact with low existing infrastructure for oil and gas. Leases UTU92708 through UTU92714, UTU93250, UTU93260, UTU93881, UTU93900 through UTU93906, UTU93910, UTU93911, UTU93913, UTU93918, UTU93923 through UTU9395, UTU93927, UTU93930, UTU93934, UTU93959, UTU93966 and UTU93968 have a variety of habitat improvement projects that have been implemented to restore various components of the sagebrush community within PHMA and GHMA, primarily lop and scatter treatments on pinyon pine and juniper. Other land uses include grazing, agriculture, dispersed recreation, and hunting. The primary disturbance is oil and gas development, and other disturbances are fairly limited within the analysis area.

Prioritization Review

To assist in the implementation of the 2015 GRSG ARMPA management decisions (BLM 2015), the BLM issued several Instruction Memorandums (IMs) to help provide guidance as it relates to **Objective MR-1: Priority will be given to leasing and development of fluid mineral resources, including geothermal, outside of PHMA and GHMA. When analyzing leasing and authorizing development of fluid mineral resources, including geothermal, in PHMA and GHMA, and subject to applicable stipulations for the conservation of GRSG, priority will be given to development in non-habitat areas first and then in the least suitable habitat for GRSG. The implementation of these priorities will be subject to valid existing rights and any applicable law or regulation, including, but not limited to, 30 USC 226(p) and 43 CFR, Part 3162.3-1(h).** One of these was IM 2016-143 (“Implementation of Greater Sage-grouse Resource Management Plan Revisions or Amendments -Oil & Gas Leasing and Development Sequential Prioritization”) which was issued on September 1, 2016. On December 27, 2017, IM 2016-143 was rescinded and replaced with IM 2018-026 (“Implementation of Greater Sage-grouse Resource Management Plan Revisions or Amendments - Oil & Gas Leasing and Development Prioritization Objective”). A decision from the District of Montana (*Montana Wildlife Federation v. Bernhardt*, 18-cv-00069-BMM) vacated IM 2018-026. As a result of the court ordered vacatur, BLM UTSO prioritizes leasing within sage-grouse habitats based on certain criteria (i.e. GRSG habitat and prior oil and gas leasing and development) as presented in Appendix K.

For GRSG prioritization considerations, the BLM reviewed eighty-one (81) leases and determined that seventy-six (76) have a higher priority for affirming because they are generally located where fewer biological component(s) are present, and more than one fluid mineral component is also present. Through the GRSG prioritization process, BLM evaluated the leases

in terms of their biological components which are: (1) the amount of PHMA/GHMA in each lease; (2) the lease's proximity to active leks; (3) habitat treatments since the ARMPA; (4) areas identified for GRSG habitat recovery from wildfire; and (5) input from the Adaptive Management Strategy Team in coordination with the Utah Division of Wildlife Resources where appropriate. As well as a variety of fluid mineral considerations such as: (1) whether the lease is adjacent to existing leases; (2) the lease's proximity to and density of existing oil and gas well(s) (producing well(s)); (3) whether there are nearby oil and gas agreements (communitization, exploratory unit, and secondary recovery); (4) potential drainage cases; (5) oil and gas potential; and (6) the well data map. Refer to Appendix K, Table 107 and Table 108 which provide an overview of the biological and fluid mineral components considered during the prioritization.

The BLM determined leases UTU92487, UTU92765, UTU92807, UTU93250, UTU93433, and UTU93982 have a lower priority for affirming because they have a higher number of biological components present and fewer fluid mineral components. Leases UTU92487, UTU92765, UTU92807, UTU93250, and UTU93433 are in PHMA. Leases UTU92487, UTU92765, UTU92807, and UTU932500 are within the Sheeprock and Parker Mountain PHMAs where hard population triggers were hit during 2016 and 2021 respectively. Leases UTU92487, UTU92765, UTU92807, UTU93250, and UTU93982 are within areas of low oil and gas potential and where there is very little oil and gas anthropogenic disturbances.

All leases within this review are eligible for being affirmed with the applicable management actions, stipulations, and notices in conformance with the ARMPA as applied at the time they were issued. Application of stipulations have been confirmed by the Utah State Office Leasing Team.

This prioritization process helped to evaluate all the leases based on BLM-Utah's current prioritization process in Appendix K for issuance in GRSG habitat and to inform potential needs for alternatives in the NEPA and identify whether any leases (low priority for affirming and high priority for affirming) should be carried forward and analyzed in this NEPA document. In the Decision Record, the Authorized Officer will make a decision on whether to affirm its previous decisions to offer and issue the leases in consideration of this prioritization analysis and any other appropriate factors.

Please see a complete discussion of the recommended lease prioritization documentation in Appendix K of this document.

Environmental Effects

Alternative A: No Action

Under Alternative A, the BLM would not affirm the 195 leases for a total of 239,923.42 acres of which 69,884.17 acres are in GHMA and 2,008.53 acres are in PHMA. Choosing Alternative A would not prevent future leasing in these areas consistent with the relevant RMPs. However, no new impacts to GHMA and PHMA associated with new Federal oil and gas development associated with these leases would occur. Existing wells and associated infrastructure may be removed and reclaimed so there could be a minor increase in localized disruptive activity.

The No Action alternative would not result in overall impacts associated with the affirming the leases. Past and present actions that have affected and would likely continue to affect GRSG in GHMA and PHMA in the analysis area include surface disturbance resulting from ongoing oil

and gas development and associated infrastructure, geophysical exploration, ranching and livestock grazing, range improvements, recreation (including OHV use), authorization of ROWs for utilities and other uses, and road development. Overall impacts to GRSG associated with Alternative C would be similar to the No Action Alternative.

Alternative B: Proposed Action: Affirm All Leases

Under the Proposed Action, 195 leases (239,923.42 acres) would be affirmed, with appropriate stipulations and lease notices (See Appendix B), of which 81 leases are located within GHMA and PHMA. Collectively, approximately 28.9% (69,884.17 acres) of the total lease acreage is within GHMA and 0.8% (2,008.53 acres) within PHMA. Any potential effects to GRSG from the affirmation of the leases would occur at such time that the leases are developed. If affirmed, drilling of wells on a lease would not be permitted until the BLM approves an APD. Any APD received would be subject to site-specific environmental review. Affirming leases under the Proposed Action could result in direct and indirect impacts to GRSG and their habitat within GHMA and PHMA on BLM-managed lands where development is authorized. Refer to maps in Appendix K (Prioritization) for further detail. The Proposed Action would include 71,551 acres of GHMA and PHMA. This is 0.99% of the total PHMA and GHMA in Utah. See Section 3.2.1. There are no producing wells associated with the leases in GRSG habitat (see Table 7 in Section 3.2.1).

The following table provides a summary of the acres and percentage of PHMA and GHMA being impacted in Alternative B by Population Area in PHMA and GHMA:

Table 27. GRSG Population Areas, GHMA, and PHMA Acres

GRSG Population/Subpopulation Area	Population/Subpopulation Area (Acres)	GHMA Acres (%) Impacted	PHMA Acres (%) Impacted
Rich	1,050,901	0	412.9 acres (0.03%)
Sheeprock	646,552	0	949.6 (0.15%)
Parker Mountain	71,1975	0	646 acres (0.09%)
Lucerne	37,526	3,138.7 acres (8.4%)	0
Uinta Mountains/Halfway Hollow/McCoy Flats	152,190	8,657.7 acres (5.7%)	0
Uinta Mountains/Deadman's Bench	134,669	42,473.5 acres (31.5%)	0
Uinta Mountains East Bench	113,776	10,420.9 acres (9.16%)	0
Uinta Mountains/Bookcliffs	297,139	3,939 acres (1.3%)	0

Anthro Mountain/Sand Wash and Big Wash	26,568	1,254.3 acres (4.7%)	0

It is unknown when, where, or to what extent well sites, roads, and associated infrastructure would be proposed and would overlap with GRSG habitat. It is reasonably foreseeable that oil and gas located on these leases would be developed and existing development would continue.

PHMA in Rich, Sheeprock, and Parker Mountain is leased only with a No Surface Occupancy (NSO) stipulation; therefore, direct impacts are not anticipated with surface disturbance in these areas. Based on the Foreseeable Development Summary presented in Table 4 (Section 3.2.1), it is estimated that there could be one well (6 acres) in the Fillmore FO and one well (5.5 acres) in the Salt Lake FO. It is estimated that there would be no total production numbers in these FOs because the wells are expected to be dry wells. In the Richfield FO, there are 5 wells predicted for a total of 34 acres of surface disturbance. Because the leases are in PHMA in Parker Mountain, the NSO stipulation has been applied; therefore, there would be no direct surface disturbance in PHMA in this population area.

The remaining leases that overlap GRSG habitat occur within GHMA in the Vernal FO. Based on Table 4 in Section 3.2.1, a total of 1,375 wells are predicted totaling 5,732 acres of disturbance. If all 1,375 wells predicted were located in GHMA habitat in the Vernal FO, this would result in approximately 5,732 acres of surface disturbance within GHMA, which is only 0.75% of the total GRSG GHMA (761,868 acres) that overlaps the leases in Lucerne, Uinta Mountains subpopulations, and Anthro Mountain.

The ROD prepared for the 2015 GRSG ARMPA (BLM, 2015) implemented GRSG management goals and objectives, including amending leasing allocations for managing the mineral estate. The Proposed Action is in conformance with the mineral decisions of the 2015 GRSG ARMPA (ROD/RMP) (BLM, 2015). Leasing actions are specifically provided for in those planning decisions (Management Actions for Minerals Resources). Because the leases are within GHMA and PHMA, the leases have the relevant stipulations and/or lease notices applied. Under the 2015 GRSG ARMPA fluid mineral stipulations Exceptions, Modifications, and Waiver Criteria, (Appendix G (BLM, 2015)) may be applied to management in PHMA.

Based on the foreseeable development described in Section 3.2.1, it is expected that well pad, road construction, and associated production and maintenance operations could occur on the leases, which could lead to direct and indirect impacts to GRSG and their habitat within GHMA and PHMA and would add to existing production. Refer to Appendix K (GRSG maps). The effects of oil and gas development and its related infrastructure on GRSG were addressed in land use plan amendments. Impacts from oil and gas development based on the foreseeable development would increase the number of pads or wells developed and would be most pronounced in winter and summer habitat within the GHMA and nesting and winter habitat in PHMA. Influences of oil and gas development on GRSG can include direct mortality from impact with infrastructure or vehicles, short term impacts associated with direct habitat loss and behavioral avoidance, and long-term impacts on grouse behavior and demographics.

Oil and gas development can contribute to declines in lek persistence and male attendance, yearling and adult hen survival, and nest initiation rates miles from the source of disturbance. Oil and gas wells elicit strong avoidance response in yearling age classes, nesting/brooding hens, and wintering birds (BLM, 2015). Lek persistence can vary depending on a variety of environmental

factors including topography; therefore, impacts from disturbance likely vary by geographical area. In Utah, the 2015 GRSG ARMPA identified a 3.1-mile lek buffer for infrastructure related to energy development. Leks within 3.1 miles of a well could experience negative impacts as measured by number of males attending leks. There are no leks within 3.1 miles of the leases as illustrated in Table 26; therefore, impacts to leks are expected to be reduced. However, some impacts may still be discernible out to >4 miles. Leases UTU93250 and UTU93251 are within 4.0 miles of two leks in the Parker Mountain Population Area. UTU93433 is within 4.0 miles of one lek in the Rich Population Area, and UTU093947 is within 4.0 miles of one lek in the Uintah Mountains Population Area in the Halfway Hollow/McCoy Flats subpopulation.

In Table 26, BLM identified which leases are within important seasonal habitat values. Potential impacts to sage-grouse nesting, winter, and summer seasonal habitat values could impact GRSG habitat through occupancy and development of the lease lands. Habitat loss and degradation from construction of roads and associated infrastructure at the time of site-specific development, potential for GRSG collisions with vehicles, habitat avoidance from noise, or the potential for increased predation could lead to localized population declines dependent on variability in land-use patterns and habitat conditions in the population areas. Proximity of disturbance nearest to the leks in Rich, Sheeprocks, and Parker Mountain population areas could result in male GRSG being displaced from traditional leks near development to less suitable lek locations in response to avoiding noise, traffic, habitat fragmentation, and other human disturbance associated with the leased areas. Female GRSG may be displaced from desirable nesting and brood-rearing habitats into less desirable habitats. A total of 14,707 acres of nesting, 53,551 acres of winter, and 39,435 acres of summer seasonal habitat values overlap with the leases. Some of these impacts could be reduced during construction and development phases by implementing the appropriate timing and/or surface use stipulations (see Appendix B). However, some direct and indirect impacts could remain once a well is producing and would remain beyond reclamation until sagebrush matures.

In 2016, the Sheeprock population area met one of the adaptive management triggers for populations; specifically, the data from 2007-2016 showed that the population declined in 8 out of 10 years. A causal factor analysis was initiated and completed in 2021; however, the BLM and Utah Division of Wildlife Resources had already initiated specific GRSG management including translocations to alleviate some of the concerns with the areas small population size. The Interdisciplinary Team comprised of a experts from BLM, other federal agencies, and state agencies identified a variety of potential causal factors. Major causal factors were identified as Isolation-Small Size, Infrastructure, Fire/Altered Fire Regime, Recreation, Altered Water Distribution, and Conifer Encroachment. BLM has implemented a variety of management actions in partnership with other state and federal agencies to address many of the major causal factors that were identified through the causal factor analysis including habitat restoration, GRSG translocations, riparian habitat restoration, etc. Since 2016, the Sheeprocks GRSG population has stabilized and shows an increase in the total number of males counted on trend leks. In accordance with the 2015 GRSG ARMPA (BLM 2015), BLM monitors and tracks habitat degradation and density of energy and mining related facilities. The current disturbance estimate for the Sheeprocks population area is 1.15% (7,451 acres). Density associated with energy and mining related infrastructure and total habitat disturbance associated with such disturbance is at zero for this population area. The threats associated with leasing have been minimal in this area.

In 2021, the Parker Mountain population area met an adaptive management trigger; specifically, lambda of less than 1 in 6 consecutive years based on all leks within the PHMA. BLM is in the process of completing a causal factor analysis; however, the state and federal agencies have been coordinating and closely collaborating in regard to this population because it is one of the largest GRSG populations within Utah. Early coordination and communication has identified significant drought as a primary causal factor in the population decline. Since 2021, the GRSG population in Parker Mountain has continued to improve showing a positive trend and growth in total males counted on trend leks. A causal factor analysis is scheduled for completion in fall 2025. There is only one disturbance feature that was identified in the 2024 density estimates for the Parker Mountain population area. The current disturbance estimated for Parker Mountain is 1.01% (7,491 acres).

Oil and gas potential within the Sheeprock and Parker Mountain population areas is low; therefore, the threat of development associated with oil and gas leasing and being tied to causal factors for the populations meeting the adaptive management triggers within these areas is low based on current density and disturbance associated with leasing.

The BLM has the authority under standard terms and conditions to attach COAs at the site-specific level to minimize adverse effects on resource values at the time operations are proposed. Examples of potential mitigation measures include design modifications to avoid or minimize effects to sensitive habitats; limiting the number of well pads under simultaneous construction; seasonal restrictions; limiting the number of proposed roads; reclaiming old and/or unnecessary roads; minimizing truck traffic; noise-buffering measures; pre-development surveys; or use of special construction techniques to minimize surface disturbance to sensitive areas within GHMA and PHMA.

The Proposed Action would incrementally add to the overall leased acres in the Uintah, Parker Mountain, Sheeprock, Rich, Lucerne and Anthro Mountain populations in GHMA and PHMA. Foreseeable development in Section 3.2.1 indicates that at least some of the leases would be developed in combination with existing production. Future development of one or more of these leases would contribute to the overall impact of habitat fragmentation and disturbance to vegetative communities within GHMA and PHMA. In the GHMA that overlaps with the leases in Uintah, Anthro Mountain, and Lucerne, there are approximately 1,064,557 acres of GHMA. Of this, approximately 174,924 acres (16%) are currently under Federal lease. In the PHMA that overlaps with the leases in Sheeprock, Rich, and Parker Mountain, there are approximately 2,438,720 acres of PHMA. Of this, approximately 12,288 acres (0.5%) are currently under Federal lease. BLM continues to offer lands nominated for competitive leasing where those lands are eligible and available; there is no guarantee that offering any lands for lease will result in development and any resultant impacts cannot be foreseen.

Impacts to GRSG beyond those analyzed in the 2015 GRSG ARMPA FEIS (BLM, 2015) are not expected. The foreseeable development described potential for multiple wells and acreages of disturbance for each lease as described in Section 3.2.1 and Appendix E. Due to the uncertainties from a lease development standpoint, it is difficult to predict exactly what impacts may occur. However, impacts from development, such as the anticipated noise, permanent and temporary facilities, and traffic, would be similar to those discussed in the Vernal, Salt Lake and Richfield FO RMPs, and the 2015 GRSG ARPMA. Cumulative impacts would further be examined at the APD level with consideration of site-specific location information and along with development of COAs to reduce the impacts to GRSG PHMA and GHMA as needed.

Alternative C: Resource Conflict Avoidance Alternative

For GRSG, Alternative C would be essentially the same as a No Action Alternative with respect to impacts to GRSG and its habitat. The BLM would not affirm the leases that fall within GHMA and PHMA; therefore, no new foreseeable oil and gas development would occur on the subject leases or off-lease on adjacent BLM lands within GHMA and PHMA. There are leases held by production within 3.1 miles of 71 of the 81 leases in GRSG habitat (see Table 108 in Appendix K). As discussed under the Proposed Action, impacts from development of nearby existing leases could still occur, resulting in some indirect impacts to GRSG in both PHMA and GHMA. Those impacts would just not be increased by BLM action on these leases because the GRSG leases would not be affirmed. The 102 non-sage-grouse leases carried forward would not result in direct or indirect effects to GRSG habitat.

Lease Notices, Stipulations, and Required Design Features

The following lease stipulations were attached dependent upon the GRSG resources identified on the leases within PHMA, and would minimize impacts to GRSG under all Action Alternatives for leases in PHMA:

UT-S-347: NSO – Greater Sage-Grouse Priority Habitat Management Areas
UT-S-348: CSU/NSO – Greater Sage-Grouse Disturbance Cap
UT-S-349: CSU/NSO – Greater Sage-Grouse Density Limitation
UT-S-350: CSU/TL – Greater Sage-Grouse Breeding Season Noise Limitations
UT-S-352: CSU – Greater Sage-Grouse Tall Structures
UT-S-353: TL – Greater Sage-Grouse Breeding, Nesting and Early Brood Rearing
UT-S-354: TL – Greater Sage-Grouse Brood-Rearing
UT-S-355: TL – Greater Sage-Grouse Winter Habitat
UT-S-356: CSU – Greater Sage-Grouse Indirect Impacts from Noise
UT-S-357: CSU – Greater Sage-Grouse Indirect Impacts from Tall Structures

The following lease notices were attached dependent upon the GRSG resources identified on the leases within GHMA, and would minimize impacts to GRSG under all Action Alternatives for leases in GHMA:

UT-LN-131: Greater Sage-Grouse – Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
UT-LN-133: Greater Sage-Grouse – Buffer

For a complete list of stipulations/notices associated with each lease within GHMA and PHMA see Appendix B.

3.5.4. Issues Four to Nine Assumptions and Similarities

Issues Four through Nine below analyze the impacts to occupied and suitable habitat for five species endemic to the Uinta Basin. This section describes similar assumptions and qualitative similar effects of fluid mineral development through which the analysis in each Issue should be interpreted.

The potential impacts of fluid mineral development on individuals and populations of rare plants are highly dependent on the actual siting of infrastructure. At each of the levels of potential

habitat (i.e. the USFWS AOI for the species), suitable habitat, and occupied habitat (i.e. a current or historic location of an individual plus a 300-foot buffer) impacts from development on the lease can range from no impact (where all activities occur outside of the habitat) to 100% impact where all disturbance occurs within the habitat and under extremely rare instances includes the direct loss of individuals. The identification of the location of future development associated with lease development would be highly speculative as it relates directly amongst other things with the technical capabilities of the operator, the location of the target fluid mineral resource, the location of existing infrastructure, topographic concerns, and the location of competing surface resources. Therefore, to provide an objective comparison between alternatives, a random distribution of disturbance is assumed (equivalent to the modal value of the normal distribution produced if disturbance was repeated under an infinitely large number of scenarios).

For issues four to nine, impacts are presented for comparison as disturbance to occupied and suitable habitat. This quantitative measure should be interpreted as a proxy for a wide variety of impacts to individuals and populations of the species. Impacts to individuals would generally be limited to disturbance of occupied habitat, with the caveat that areas of suitable habitat may be found to be occupied habitat in the future.

For each species, occupied habitat is defined as a 300-foot buffer around the location of current or historically known individuals of the species. Occupied habitat was then delineated into subpopulations using a 2-kilometer separation distance. For ease of discussion, subpopulations of each species that intersect analyzed leases are named for this document using existing publications, where available; nearby geographic location names; or other document specific identifiers.

None of the species has had complete surveys across all potential habitat to determine species presence nor habitat suitability. Therefore, the BLM developed ensemble models for each species that consists of models produced using three modeling techniques: logistic regression, random forest, and boosted regression tree. Each relates habitat suitability to a range of terrain attributes (e.g. elevation, slope, surface relief index) at several spatial scales. Each model was classified conservatively using the lower of the threshold that maximizes Cohen's Kappa value or the true skill statistic. For the analyses in this document, suitable habitat is defined as locations within the species AOI that are categorized as suitable by at least two of the produced models.

Appendix C of the Graham's beardtongue and White River beardtongue Biological Status Report (USFWS, 2021) provides an overview of the impacts of surface disturbing activities on rare plants in the Uinta Basin.

Impacts to individuals include the loss of individuals, loss or disturbance to the established seedbank, loss of nesting sites and floral resources for the pollinator community associated with the species, increased fugitive dust deposition which may affect individuals' growth or reproductive potential, and increased competition with introduced non-native plants. As the distance between individuals and disturbance increase, the magnitude and potential for these impacts to occur decreases with measurable effects likely occurring within the first 300 feet (i.e. occupied habitat).

Additional impacts to the species can occur through habitat loss and fragmentation of unoccupied suitable habitat. These impacts include reduced gene flow through reduced pollinator abundance (associated with loss of nesting and foraging habitat) and the loss of unoccupied habitat that may provide areas for species colonization and expansion.

Habitat restoration is difficult in general within the Colorado Plateau and is highly dependent on both restoration techniques used and stochastic events. Given that the following endemic species each has specific abiotic and biotic requirements it is likely that restoration needed to support the species again is even more difficult. As there are no studies that show successful and repeatable reestablishment of these rare species following disturbance, it should be assumed that disturbed areas would permanently not provide habitat for the species.

Future potential disturbance would occur within the framework of existing disturbance to suitable and occupied habitat and previous impacts to individual. Within the Affected Environment section of each Issue, the number of constructed wells and wells pads (Abandoned are all wells with Plugged and Abandoned Status and Existing are all approved well types excluding Plugged and Abandoned or Approved Permit to Drill) and proposed wells and well pads is presented as well as the miles of existing linear features (primarily roads) inventoried by the Vernal FO up until 2013 as part of travel management planning.

3.5.5. Issue 4: Uinta Basin hookless cactus (*Sclerocactus wetlandicus*) & (*Sclerocactus brevispinus*) - Threatened

How would potential development of the leases affect occupied and modeled suitable habitat for the two listed Uinta Basin *Sclerocactus* species?

Affected Environment

Uinta Basin hookless cactus (*Sclerocactus wetlandicus*) and Pariette cactus (*Sclerocactus brevispinus*) are two federally threatened members of the cactus family endemic to the Uinta Basin. Due to their proximity, hybridization, and close biological affinity the two species are analyzed together. Additional information on the species is available in the Recovery Plan for Uinta Basin hookless cactus and Pariette cactus (USFWS, 2023).

Across the range of the species there are twenty-five subpopulations with 24,322 acres of habitat within 300 feet of a known occurrence of one or more individuals.

Habitat modeling for the species (BLM unpublished) identified 114,424 acres of habitat across the range of the species.

Five subpopulations (found within the Seep Ridge population) are within 300 feet of a lease. The first subpopulation covers Pariette Draw, lower Willow Creek, Myton area, Duchesne River, and portions of the Upper Green (Pariette). The second subpopulation covers the Middle Green River, Lower Green River, and lower portion of Wrinkles Road (Lower Green River). The third subpopulation is located in Bonanza. The fourth subpopulation is located in the upper part of Wrinkles Road (Nine Mile Canyon). The fifth subpopulation is the most northerly population along the Green River (Upper Green River). Of those, two subpopulations intersect leases: Lower Green River and Pariette.

Existing activities are expected to continue (see Section 3.3). The current setting is described

below for the occupied habitat and modeled suitable habitat across the range of the species.

Occupied Habitat

Within 300 feet of known Uinta Basin *Sclerocactus* locations, there are 224 fluid mineral well pads that have been constructed at some point in the past. An additional 2 new well pads are proposed. There are 11,367 acres of occupied habitat that are currently leased resulting from other leasing actions (i.e. leases not being reconsidered in this EA). A BLM route inventory identified 52 miles of linear routes on BLM managed lands within the Vernal FO within 300 feet of individuals of the listed Uinta Basin *Sclerocactus*.

Modeled Suitable Habitat

Within modeled suitable habitat for the listed Uinta Basin *Sclerocactus* species, there are 983 fluid mineral well pads that have been constructed at some point in the past. An additional 32 new well pads are proposed. There are 54,941 acres of modeled suitable habitat that currently has existing federal fluid minerals leased, which does not include the subject leases. A BLM route inventory identified 2,814 miles of linear routes on BLM managed lands within the Vernal FO within modeled suitable habitat for the listed Uinta Basin *Sclerocactus* species.

Environmental Affects

Impacts of Alternative A

Under Alternative A, the BLM would not affirm the leases. However, in the absence of a Land Use Plan amendment closing lands to leasing, the lands could be considered for inclusion in future lease sales. No new impacts to the Uinta Basin *Sclerocactus* species occupied or suitable habitat associated with new Federal oil and gas development for the subject leases would occur under Alternative A in the foreseeable future.

Impacts of the Proposed Action (Alternative B)

Under Alternative B, twelve of the leases intersect modeled suitable habitat for the species, four of the leases intersect occupied habitat for the species, and three of those leases encompass known occurrences for the species (UTU91068, UTU92677, and UTU94135).

Occupied Habitat

Acres of occupied habitat, is defined as a buffer of 300 feet applied to a documented *Sclerocactus* plant, are presented in Table 28.

Table 28. Acres and Estimated Disturbance (in Parathesis) of Uinta Basin *Sclerocactus* Occupied Habitat by Subpopulation

Lease	Lower Green	Pariette	Grand Total
UTU91068	11.1 (0.1)		11.1 (0.1)
UTU91938	0.4 (0.0)		0.4 (0.0)
UTU92677		173.6 (2.3)	173.6 (2.3)
UTU94135	3.7 (0.)		3.7 (0.0)
Outside Leases	5,494.5	12,444.6	19,054.6
Grand Total	5,509.6 (0.2)	12,618.2 (2.3)	19,243.2 (2.4)

Using the foreseeable disturbance assumptions in Section 3.2.1, and assuming random placement of disturbance within the area, 2.4 acres may be directly impacted by the development representing less than 0.1% of the occupied habitat in each subpopulation and less than 0.1% of the total occupied habitat for the species (Table 28).

Given the requirements of lease notice T&E-12 to perform surveys and avoid individuals by 300 feet where feasible combined with the BLM's statutory and regulatory authority to impose reasonable measures consistent with lease rights granted, it is expected that impacts to occupied habitat at the lease development stage may be further reduced. However, given the distribution of the populations, topographic constraints, and locations of existing infrastructure (including existing collector roads) it is likely that 100% avoidance of occupied habitat will not be possible.

Modeled Suitable Habitat

Acres of modeled suitable habitat within leases for the Uinta Basin *Sclerocactus* species is presented in Table 29.

Table 29. Uinta Basin *Sclerocactus* Suitable Habitat and Estimated Disturbance from Future Lease Development

Lease	Acres Suitable Habitat	Acres Disturbance
UTU91068	109.9	0.9
UTU91938	34.1	1.5
UTU91948	0.1	0.0
UTU92676	56.6	2.5
UTU92677	430.9	5.7
UTU92685	70.5	0.2
UTU93656	3.8	0.0

Lease	Acres Suitable Habitat	Acres Disturbance
UTU93657	12.5	0.2
UTU93658	13.6	0.2
UTU93659	4.7	0.2
UTU93884	0.1	0.0
UTU94135	10.1	0.1
Grand Total	746.9	11.5

Using the foreseeable disturbance assumptions in Section 3.2.1 and assuming random placement of disturbance within the area, 11.5 acres of modeled suitable habitat may be directly impacted by the development of the subject leases (Table 29). This represents 1.5% of the suitable habitat within the leases and less than 0.1% of the suitable habitat across the range of the species.

To minimize impacts, the following lease notices and stipulations were applied to the leases:

Lease Notices

- T&E-12 : Pariette Cactus (*Sclerocactus brevispinus*) and Uinta Basin Hookless Cactus [*Sclerocactus glaucus (brevispinus and wetlandicus)*]: UTU91068, UTU91938, UTU91948, UTU92676, UTU92677, UTU92685, UTU92698 (intersects the species AOI but not occupied or suitable habitat), UTU93260 (intersects the species AOI but not occupied or suitable habitat), UTU93656, UTU93657, UTU93658, UTU93659, UTU93660 (intersects the species AOI but not occupied or suitable habitat), UTU93884, UTU94135
- T&E-05 – Listed Plant Species – All Leases

Lease Stipulations

- HQ-TES-1 Threatened and Endangered Species Act: All Leases

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The above lease notices combined with Section 6 of the Standard Lease Terms and Conditions (43 CFR § 3101.12) identifies survey, avoidance, and minimization requirements for the species.

Impacts of Alternative C – Resource Conflict Avoidance Alternative

Under Alternative C, the leases identified in Table 2 would not be affirmed. A component of this Alternative is that all leases that intersect the *Sclerocactus* Core 2 Areas (Refer to 3.5.6 for a description of the *Sclerocactus* Core Areas) would not be affirmed. This, along with incidental of occupied habitat that overlaps other leases not affirmed due to other resources, considerably reduces but does not fully avoid occupied or suitable habitat for the species.

Occupied Habitat

Two of the leases intersect occupied habitat for the Uinta Basin *Sclerocactus* in two of the subpopulations.

Using the foreseeable disturbance assumptions in Section 3.2.1, and assuming random placement of disturbance within the area, 2.4 acres may be directly impacted by the development representing less than 0.1% of the occupied habitat in each subpopulation and less than 0.1% of the total occupied habitat for the species (Table 30).

Table 30. Estimated Acres of Disturbance within Uinta Basin *Sclerocactus* Occupied Habitat by Subpopulation from Future Lease Development

Lease	Lower Green	Pariette	Grand Total
UTU91068	0.1		0.1
UTU92677		2.3	2.3
Grand Total	0.1	2.3	2.4

Given the requirements of lease notice T&E-12 to perform surveys and avoid individuals by 300 feet where feasible combined with the BLM's regulatory authority to require reasonable measures consistent with lease rights granted, it is expected that impacts to occupied habitat at the lease development stage may be further reduced. However, given the distribution of the populations, topographic constraints, and locations of existing infrastructure (including existing collector roads) 100% avoidance of occupied habitat may not be possible.

Modeled Suitable Habitat

Eight leases intersect 702.5 acres of modeled suitable habitat for the listed Uinta Basin *Sclerocactus* species. Using the foreseeable disturbance assumptions in Section 3.2.1, and assuming random placement of disturbance within the area, 9.9 acres of modeled suitable habitat would be directly impacted by future lease development. This represents 3.6% of the suitable habitat within the eight leases and 0.2% of the suitable habitat across the range of the species.

To minimize impacts, the following lease notices and stipulations were applied to the leases:

Lease Notices

- T&E-12: Pariette Cactus (*Sclerocactus brevispinus*) and Uinta Basin Hookless Cactus [*Sclerocactus glaucus* (*brevispinus* and *wetland*)]: UTU91068, UTU92676, UTU92677,

UTU92685, UTU92698 (intersects the species AOI but not occupied or modeled suitable habitat), UTU93656, UTU93657, UTU93658, UTU93659, UTU93660 (intersects the species AOI but not occupied or modeled suitable habitat)

- T&E-05 – Listed Plant Species – All Leases

Lease Stipulations

- HQ-TES-1 Threatened and Endangered Species Act: All Leases

The above lease notices combined with Section 6 of the Standard Lease Terms and Conditions (43 CFR § 3101.12) identifies survey, avoidance, and minimization requirements for the species.

3.5.6. Issue 5: Uinta Basin hookless cactus (*Sclerocactus wetlandicus*) & (*Sclerocactus brevispinus*) core conservation areas

How would potential development of the leases affect the Level 1 and Level 2 core conservation areas established for the listed Uinta Basin *Sclerocactus* species?

Affected Environment

In 2012, USFWS in cooperation with partners developed Core Conservation Areas (CCA) for the listed Uinta Basin *Sclerocactus* species to aid with consultation under Section 7 of the Endangered Species Act and “guide the conservation of important high-density areas and surrounding pollinator habitat, reduce fragmentation, limit habitat loss, and maintain connectivity between subpopulations across the species’ range (USFWS, 2021).” There are two levels of nested CCAs, for which, Core 1 areas include the densest concentrations of the species and have been identified as areas that should not experience additional disturbance; and Core 1 areas are nested within broader Core 2 areas. The Core 2 areas, provide habitat and pollinator buffers around Core 1 areas and support connectivity between Core 1 areas (USFWS, 2023). Within Core 2 areas, conservation measures identify that surface disturbance should not exceed 5%, and within Core 1 areas, additional surface disturbance should be avoided (USFWS, 2013).

Three Core 2 areas (Bonanza, Middle Green, and Nine Mile) intersect the three leases, and one Core 1 area (Middle Green) intersects one lease.

Existing activities are expected to continue (see Section 3.3). The current setting is described below for the Core 1 and Core 2 Areas

Core 1 Areas

Within the Middle Green Core 1 Area, there are 25 fluid mineral well pads that have been constructed at some point in the past. There is also one new proposed well pad. There are 4,508.5 acres of Core 1 habitat within the Middle Green Core 1 Area that are already leased through unrelated leasing actions (i.e. leases not reconsidered in this EA). A BLM route inventory identified 26 miles of linear routes on BLM managed lands within the Vernal FO within the Middle Green Core 1 Area.

Core 2 Areas

Within the Core 2 Areas that intersect the leases, there are 190 active or abandoned wells from

177 well pads and eight proposed wells from one proposed well pad (Table 31).

Table 31. Existing and Proposed Fluid Mineral Wells and Well Pads within *Sclerocactus* Core 2 Areas that Overlap the Subject Leases

	Active or Abandoned Wells	Active or Abandoned Pads	Proposed New Wells	Proposed New Well Pads
Bonanza	74	74	0	0
Middle Green	113	100	8	1
Nine Mile	3	3	0	0
Total	190	177	8	1

There are 20,655.6 acres of Core 2 Habitat in Core 2 Areas that intersect the project (5,657.0 in Bonanza, 12,462.4 in Middle Green, and 2,536.3 in Nine Mile) that are already leased through unrelated leasing actions (i.e. leases not reconsidered in this EA). A BLM route inventory identified 111.0 miles of linear routes on BLM managed lands within the Vernal FO within Core 2 habitat that intersects the project (29.2 in Bonanza, 61.8 in Middle Green, and 20.0 in Nine Mile).

Environmental Effects

Impacts of Alternative A

Under Alternative A, the BLM would not affirm the leases. However, in the absence of a Land Use Plan Amendment closing lands to leasing, the lands could be considered for inclusion in future lease sales. No new impacts to *Sclerocactus* Core 1 or Core 2 habitat associated with new Federal oil and gas development for the subject leases would occur under Alternative A in the foreseeable future.

Impacts of the Proposed Action (Alternative B)

Under Alternative B, three leases (UTU91938, UTU91948, and UTU94135) intersect Core 2 areas and one lease (UTU91938) intersects Core 1 areas.

Core 1 Areas

Lease UTU91938 intersects 24.1 acres (60.2% of the lease) of the 6,078.7-acre Middle Green Level 1 CCA.

Using the foreseeable disturbance assumptions in Section 3.2.1, and assuming random placement of disturbance within the area, 1.1 acres could be directly impacted by development representing 0.02% of the Middle Green Core 1 Area. Lease UTU91938 extends less than 800 meters (the maximum distance operations could be relocated by the BLM)) into the Core 1 Area. Therefore, impacts to the Core 1 area from future on-lease development are expected to be fully avoided. In the unlikely event that future development includes new surface disturbance within the Core 1 area, the project will likely require additional mitigation measures developed through the ESA Section 7 consultation process, potentially including compensatory mitigation, to account for impacts to Core 1 habitat.

Core 2 Areas

Acres of Core 2 habitat found within leases is presented in Table 32.

Table 32: Acres and Estimated Disturbance (in Parenthesis) within *Sclerocactus* Core 2 Areas

Lease	Bonanza	Middle Green	Nine Mile	Grand Total
UTU91938		40.1 (0.5)		40.1 (0.5)
UTU91948	39.1 (1.7)			39.1 (1.7)
UTU94135			10.0 (0.4)	10.0 (0.4)
Outside of Leases	6,478.2	17,752.7	7,577.9	31,808.8
Total	6,517.3 (1.7)	17,792.7 (0.5)	7,588.0 (0.4)	31,898.0 (2.7)

Using the foreseeable disturbance assumptions in Section 3.2.1, and assuming random placement of disturbance within the area, 2.7 acres of Core 2 habitat would be directly impacted by the development (Table 32).

This represents between 0.003 and 0.03% of the habitat within each Core 2 Area. The Middle Green and Nine Mile Core 2 Areas are well below the 5% disturbance threshold identified in the Management and Conservation Measures developed for the Core Conservation Areas. In addition, the expected future surface disturbance would not result in the threshold being exceeded. Existing disturbance within the Bonanza Level 2 Core Conservation Area is double the target threshold. If future development includes new surface disturbance within the Core 2 area, site specific Section 7 consultation for the project will require additional mitigation measures, including compensatory mitigation.

To minimize impacts, the following lease notices were applied to the leases:

Lease Notices

- T&E-12: Pariette Cactus (*Sclerocactus brevispinus*) and Uinta Basin Hookless Cactus [*Sclerocactus glaucus (brevispinus and wetlandicus)*]: UTU91938, UTU91948, UTU94135
- T&E-05 – Listed Plant Species – All Leases

Lease Stipulations

- HQ-TES-1 Threatened and Endangered Species Act: All Leases

The above lease notice combined with Section 6 of the Standard Lease Terms and Conditions (43 CFR § 3101.12) identifies survey, avoidance, and minimization requirements for the species.

Impacts of Alternative C – Resource Conflict Avoidance Alternative

Under Alternative C, the leases identified in Table 2 would not be affirmed. This includes all leases that intersect CCAs. Therefore, there would be no future direct impacts to CCAs from future lease development. However, in the absence of a Land Use Plan amendment closing lands to leasing, the lands could be considered for inclusion in future lease sales.

3.5.7. Issue 6: Shrubby Reed-Mustard (*Hesperidanthus suffrutescens*) – Endangered

How would potential development of the leases affect modeled suitable and occupied habitat for shrubby reed-mustard?

Affected Environment

Shrubby reed-mustard (*Hesperidanthus* [*Schoenocrambe*] *suffrutescens*) is a federally listed endangered species. It is a perennial member of the mustard family endemic to white shale layers of the upper member of the Green River formation in northeastern Utah. Additional information on the species is available in the Utah Reed-Mustards Recovery Plan (USFWS, 1994) and the most recent 5-year review (USFWS, 2019).

Across the range of the species there are ten subpopulations with 2,117 acres of habitat within 300 feet of a known occurrence.

Habitat modeling for the species (BLM, unpublished) identified 18,225 acres of modeled suitable habitat across the range of the species.

Two subpopulations are within 300 feet of a subject lease. The first subpopulation is on the northwest side of Big Pack Mountain (Big Pack Mountain) that has 873 acres of occupied habitat and the second is along Wrinkles Road (Wrinkles Road) that has 386 acres of occupied habitat.

Existing activities are expected to continue (see Section 3.3). The current setting is described below for the occupied habitat and modeled suitable habitat across the range of the species

Occupied Habitat

Within 300 feet of known shrubby-reed mustard locations, there is one fluid mineral well pad constructed and no new well pads currently proposed. There are 481 acres of habitat within 300 feet of known occurrences that are already leased through unrelated leasing actions (i.e. leases not reconsidered in this EA). The Vernal FO route inventory identified 99 miles of linear routes on BLM managed lands within the Vernal FO within modeled suitable habitat for shrubby-reed mustard.

Modeled Suitable Habitat

Within modeled suitable habitat for shrubby reed-mustard, there are 18 fluid mineral well pads that have been constructed at some point in the past. There are no new well pads proposed within modeled suitable habitat. There are 5,998 acres of modeled suitable habitat that are already leased through unrelated leasing actions (i.e. leases not reconsidered in this EA). The Vernal FO route inventory identified 35 miles of linear routes on BLM managed lands within the Vernal FO within modeled suitable habitat for shrubby-reed mustard.

Environmental Affects

Impacts of Alternative A

Under Alternative A, the BLM would not affirm the leases. However, in the absence of a Land Use Plan amendment closing lands to leasing, they could be considered for inclusion in future

lease sales. No new impacts to shrubby-reed mustard occupied or suitable habitat associated with new Federal oil and gas development for the subject leases would occur under Alternative A in the foreseeable future.

Impacts of the Proposed Action (Alternative B)

Under Alternative B, four of the leases intersect the USFWS Area of Influence (AOI) for the species, three of the leases intersect modeled suitable habitat for the species, two of the leases intersect occupied habitat, and lease UTU93884 intersects known occurrences for shrubby reed-mustard.

Occupied Habitat

Acres of occupied habitat, defined here as areas within 300 feet of a plant, is presented in Table 33.

Table 33: Acres and Estimated Disturbance (in Parathesis) of Shrubby Reed-Mustard Occupied Habitat (300 Feet Around Known Occurrence) by Subpopulation from Future Lease Development

Lease	Big Pack Mountain	Wrinkles Road	Total
UTU93645	7.0 (0.1)		7.0 (0.0)
UTU94135		1.1 (0.0)	1.1 (0.)
Acres outside leases	866.4	384.8	1,251.2
Grand Total	873.4	385.9	1,259.3

Using the foreseeable disturbance assumptions in Section 3.2.1, and assuming random placement of disturbance within the area, 0.1 acres of occupied shrubby-reed mustard habitat would be directly disturbed by future lease development, representing less than 0.1% of the occupied habitat in either subpopulation or across the range of the species. Given the requirements of lease notice T&E-21 to perform surveys and avoid individuals by 300 feet where feasible, it is expected that impacts to occupied habitat at the lease development stage would be reduced.

Modeled Suitable Habitat

Acres of modeled suitable habitat found is presented in Table 34.

Table 34: Acres of Modeled Shrubby Reed-Mustard Suitable Habitat and Potential Acres Disturbance from Future Lease Development

Lease	Acres Suitable Habitat	Acres Disturbance
UTU93645	29.3	0.4
UTU93884	3.8	0.1
UTU94135	421.9	5.5
Grand Total	455.1	6.0

Using the foreseeable disturbance assumptions in Section 3.2, and assuming random placement of disturbance within the area, 6.0 acres of modeled suitable habitat would be directly impacted

by the development. This represents 1.3% of the suitable habitat within the leases and less than 0.1% of the suitable habitat across the range of the species.

To minimize impacts, the following lease notices and stipulations were applied to the leases:

Lease Notices

- T&E-21 – Shrubby reed-mustard (*Schoenocrambe suffrutescens*): Leases UTU91953 (intersects species AOI but does not contain occupied or modeled suitable habitat), UTU93645, UTU93884, UTU94135
- T&E-05 – Listed Plant Species: All Leases

Lease Stipulations

- HQ-TES-1 Threatened and Endangered Species Act: All Leases

The above lease notices combined with Section 6 of the Standard Lease Terms and Conditions (43 CFR § 3101.12) identifies survey, avoidance, and minimization requirements for the species.

Impacts of Alternative C – Resource Conflict Avoidance Alternative

Under Alternative C, the Leases identified in Table 2 would not be affirmed. Under Alternative C, lease UTU93645 would be affirmed and intersects modeled and occupied habitat for shrubby-reed mustard.

Occupied Habitat

Using the foreseeable disturbance assumptions in Section 3.2.1, and assuming random placement of disturbance within the area, 0.1 acres of occupied shrubby-reed mustard habitat would be directly impacted by the development, representing less than 0.1% of the occupied habitat in the Big Pack Mountain subpopulation or across the range of the species. Given the requirements of lease notice T&E-21 to perform surveys and avoid individuals by 300 feet where feasible, it is expected that impacts to occupied habitat at the lease development stage would be less than those presented.

Modeled Suitable Habitat

Using the foreseeable disturbance assumptions in Section 3.2.1, and assuming random placement of disturbance within the area, 0.4 acres of modeled suitable habitat would be directly impacted by the development. This represents 1.3% of the suitable habitat within the lease and less than 0.1% of the suitable habitat across the range of the species.

To minimize impacts, the following lease notices and stipulations were applied to the leases:

Lease Notices

- T&E-21 – Shrubby reed-mustard (*Schoenocrambe suffrutescens*): Lease UTU93645
- T&E-05 – Listed Plant Species: All Leases

Lease Stipulations

- HQ-TES-1 Threatened and Endangered Species Act: All Leases

The above lease notices combined with Section 6 of the Standard Lease Terms and Conditions (43 CFR § 3101.12) identifies survey, avoidance, and minimization requirements for the species.

3.5.8. Issue 7: Graham's [Beardtongue] Penstemon (*Penstemon grahamii*)

How would potential development of the leases affect modeled suitable and occupied habitat for Graham's penstemon?

Affected Environment

Graham's penstemon (*Penstemon grahamii*) is a BLM sensitive species and a perennial member of the plantain family endemic to the Green River formation in northeastern Utah and adjacent Rio Blanco County, Colorado. Additional information on the species is available in the Conservation Agreement and Strategy (Penstemon Conservation Team, 2014) and the Biological Status Report (USFWS, 2021).

Across the Utah portion of the species range there are twenty-eight subpopulations with 10,141 acres of habitat within 300 feet of a known current or historic individual.

Habitat modeling for the species (BLM unpublished) identified 105,253 acres of habitat across the range of the species.

Eight subpopulations (found within all populations except for Raven Ridge) are within 300 feet of a lease. One is the western portion of the Sand Wash population (Sand Wash). The second is the main Seep Ridge population (Seep Ridge). The third is a small population to the east of Willow Creek north of the Seep Ridge population (Willow Creek). The fourth is a population along Bitter Creek (Bitter Creek). The fifth is a very small population in Nelson Canyon (Nelson Canyon). The sixth is the southern portion of the Evacuation Creek population (Evacuation Creek – S). The seventh is the northern portion of the Evacuation Creek population (Evacuation Creek – N). The eighth is the White River population (White River).

Existing activities are expected to continue (see Section 3.3). The current setting is described below for the occupied habitat and modeled suitable habitat across the range of the species

Occupied Habitat

Within 300 feet of known Graham's penstemon locations, there are four fluid mineral well pads that have been constructed at some point in the past. There are 1,104 acres of habitat within 300 feet of known that are already leased through unrelated leasing actions (i.e. leases not reconsidered in this EA). A BLM route inventory identified 23 miles of linear routes on BLM managed lands within the Vernal FO within 300 feet of Graham's penstemon.

Modeled Suitable Habitat

Within modeled suitable habitat for Graham's penstemon, there are 90 fluid mineral well pads that have been constructed at some point in the past. An additional two fluid mineral well pads are proposed within modeled suitable habitat. There are 18,606 acres of modeled suitable habitat that are already leased through unrelated leasing actions (i.e. leases not reconsidered in this EA). A BLM route inventory identified 190.3 miles of linear routes on BLM managed lands within the Vernal FO within modeled suitable habitat for Graham's penstemon on BLM lands within the Vernal FO.

Environmental Affects

Impacts of Alternative A

Under Alternative A, the BLM would not affirm the leases. However, in the absence of a Land Use Plan Amendment closing lands to leasing, they could be considered for inclusion in future lease sales. No new impacts to Graham's penstemon occupied or suitable habitat associated with new Federal oil and gas development for the subject leases would occur under Alternative A in the foreseeable future.

Impacts of the Proposed Action (Alternative B)

Under Alternative A, sixty-two of the leases intersect modeled suitable habitat for the species. Twenty-three of the leases intersect known occurrences for Graham's penstemon.

Occupied Habitat

Acres of occupied habitat, defined here as areas within 300 feet of a plant, is presented in Table 35.

Table 35: Acres and Estimated Disturbance (in Parenthesis) Graham's Penstemon Occupied Habitat (300 Feet Around Known Occurrence) Acreage by Subpopulation

Lease	Sand Wash	Seep Ridge	Willow Creek	Bitter Creek	Nelson Canyon	Evacuation Creek - S	Evacuation Creek - N	White River	Total
UTU91949								196.5 (0.6)	196.5 (0.6)
UTU91950								349.3 (4.6)	349.3 (4.6)
UTU93665				18.9 (0.8)					18.9 (0.8)
UTU93670						39.3 (1.7)			39.3 (1.7)
UTU93671						2.4 (0.1)			2.4 (0.1)
UTU93672						246.7 (10.8)			246.7 (10.8)
UTU93673						125.2 (5.5)			125.2 (5.5)
UTU93675					6.5 (0.3)				6.5 (0.3)

Lease	Sand Wash	Seep Ridge	Willow Creek	Bitter Creek	Nelson Canyon	Evacuation Creek - S	Evacuation Creek - N	White River	Total
UTU936 76				51.7 (1.1)					51.7 (1.1)
UTU936 79				9 (0.2)					9 (0.2)
UTU936 84								39.4 (0.1)	39.4 (0.1)
UTU936 87							322.5 (14.1)		322.5 (14.1)
UTU936 88							192 (2.5)		192 (2.5)
UTU939 02		13.2 (0.2)							13.2 (0.2)
UTU939 03		236.3 (3.1)							236.3 (3.1)
UTU939 04		49.2 (2.2)							49.2 (2.2)
UTU939 05		475.7 (20.8)							475.7 (20.8)
UTU939 06		232 (10.1)							232 (10.1)
UTU939 07		115.9 (5.1)							115.9 (5.1)
UTU939 10		78.1 (3.4)							78.1 (3.4)
UTU939 35								6.5 (0.1)	6.5 (0.1)
UTU939 37								6.5 (0.3)	6.5 (0.3)
UTU939 39							205.1 (9)		205.1 (9)
UTU941 35	7.2 (0.1)								7.2 (0.1)
Outside Leases	698.3	1,581.20	19.4	21.2		1,062.80	1,225.90	1,399.30	6,008.10
Grand Total	705.6 (0.1)	2781.7 (44.9)	19.4 (0)	100.8 (2.2)	6.5 (0.3)	1476.3 (18.1)	1945.5 (25.6)	1997.4 (5.7)	9033.2 (96.8)

Using the foreseeable disturbance assumptions in Section 3.2, and assuming random placement of disturbance within the area, 98.6 acres may be directly impacted by the development representing between less than 0.1% and 4.4% of the occupied habitat in each subpopulation and 0.9% of the total occupied habitat for the species (Table 35).

Given the requirements of lease notice UT-LN-90 to perform surveys and avoid individuals by 300 feet where feasible combined with the BLM's statutory and regulatory authority to require reasonable measures consistent with lease rights, it is expected that impacts to occupied habitat at the lease development stage may be further reduced. However, given the distribution of the populations, topographic constraints, and locations of existing infrastructure (including existing collector roads) it is likely that 100% avoidance of occupied habitat will not be possible.

Modeled Suitable Habitat

Acres of modeled suitable habitat found in applicable leases is presented in Table 36.

Table 36: Modeled Graham's Penstemon Suitable Habitat

Lease	Acres	Lease	Acres	Lease	Acres
UTU91949	323.2	UTU93668	0.1	UTU93901	1.9
UTU91950	1,652.0	UTU93669	222.2	UTU93902	221.9
UTU91953	25.1	UTU93670	1,612.9	UTU93903	1,088.7
UTU92686	106.9	UTU93671	872.3	UTU93904	830.7
UTU92708	18.3	UTU93672	898.3	UTU93905	2,447.8
UTU92709	5.2	UTU93673	898.9	UTU93906	1,444.4
UTU92710	5.7	UTU93675	233.4	UTU93907	1,874.3
UTU92712	11.0	UTU93676	351.6	UTU93910	303.7
UTU93260	1.1	UTU93679	588.1	UTU93911	398.2
UTU93651	11.6	UTU93681	171.2	UTU93916	0.1
UTU93656	2.0	UTU93684	90.4	UTU93917	1.1
UTU93657	1.9	UTU93686	129.1	UTU93920	0.9
UTU93658	34.0	UTU93687	1,647.2	UTU93922	0.2
UTU93659	60.4	UTU93688	737.3	UTU93934	0.4
UTU93660	6.2	UTU93695	0.1	UTU93935	271.8
UTU93661	55.3	UTU93696	45.1	UTU93936	109.9
UTU93662	8.0	UTU93697	0.4	UTU93937	192.4
UTU93663	411.0	UTU93725	107.7	UTU93938	290.5
UTU93664	1,192.2	UTU93884	0.0	UTU93939	1,249.8
UTU93665	414.8	UTU93899	12.5	UTU94135	314.3
UTU93666	181.0	UTU93900	14.2	Grand Total	24,202.9

Using the foreseeable disturbance assumptions in Section 3.2.1, and assuming random placement of disturbance within the area, 884.3 acres of modeled suitable habitat would be directly impacted by the development. This represents 3.6% of the suitable habitat within the leases and 0.8% of the suitable habitat across the range of the species.

To minimize impacts, the following lease notices were applied to the leases:

Lease Notices

- UT-LN-90 – Graham's beardtongue (*Penstemon grahamii*): Leases in Table 35 and Table 36 and UTU93685 (intersects the species AOI but not occupied or modeled suitable habitat)
- UT-LN-49 – Utah Sensitive Species: All Leases Above
- UT-LN-51 – Special Status Plants: Not Federally Listed: All Leases

The above lease notices combined with Section 6 of the Standard Lease Terms and Conditions (43 CFR § 3101.12) identifies survey, avoidance, and minimization requirements for the species.

Impacts of Alternative C – Resource Conflict Avoidance Alternative

Under Alternative C, the leases identified in Table 2 would not be affirmed. A component of this Alternative is that all leases that intersect Graham's and White River Penstemon Conservation Areas would not be affirmed (see 3.5.10 for description of the Penstemon Conservation Areas). This, along with incidents of occupied habitat that overlap other leases not affirmed due to other resources, considerably reduces but does not fully avoid occupied or suitable habitat for the species.

Occupied Habitat

Four leases intersect occupied habitat for Graham's penstemon in two of the small subpopulations.

Table 37 Estimated Acres of Disturbance within Graham's Penstemon Occupied Habitat Subpopulations from Future Lease Development

Lease	Bitter Creek	Nelson Canyon	Grand Total
UTU93665	0.8		0.8
UTU93675		0.3	0.3
UTU93676	1.1		1.1
UTU93679	0.2		0.2
Grand Total	2.2	0.3	2.4

Using the foreseeable disturbance assumptions in Section 3.2.1, and assuming random placement of disturbance within the area, 2.4 acres would be directly impacted by the development representing between 2.1% and 4.4% of the occupied habitat in each subpopulation and less than 0.1% of the total occupied habitat for the species (see Section 3.3). Given the requirements of lease notice UT-LN-90 to perform surveys and avoid individuals by 300 feet where feasible, it is expected that impacts to occupied habitat at the lease development stage would be less than those presented

Modeled Suitable Habitat

Twenty-eight leases intersect 4,455.8 acres of modeled suitable habitat for Graham's penstemon. Using the foreseeable disturbance assumptions in Section 3.2.1, and assuming random placement of disturbance within the area, 161.6 acres of modeled suitable habitat would be directly impacted by the development. This represents 3.6% of the suitable habitat within the 28 leases and 0.2% of the suitable habitat across the range of the species.

To minimize impacts, the following lease notices were applied to the leases:

Lease Notices

- UT-LN-90 – Graham's beardtongue (*Penstemon grahamii*): Leases UTU92686, UTU93651, UTU93656, UTU93657, UTU93658, UTU93659, UTU93660, UTU93661, UTU93662, UTU93663, UTU93664, UTU93665, UTU93666, UTU93668, UTU93669, UTU93675, UTU93676, UTU93679, UTU93681, UTU93685, UTU93695, UTU93696, UTU93697, UTU93725, UTU93884, UTU93899, UTU93900, UTU93901, UTU 93902

- UT-LN-49 – Utah Sensitive Species: All Leases
- UT-LN-51 – Special Status Plants: Not Federally Listed: All Leases

The above lease notices combined with Section 6 of the Standard Lease Terms and Conditions (43 CFR § 3101.12) identifies survey, avoidance, and minimization requirements for the species.

3.5.9. Issue 8: White River Penstemon [Beardtongue] (*Penstemon albifluvis*)

How would potential development of the leases affect modeled suitable and occupied habitat for White River penstemon?

Affected Environment

White River penstemon (*Penstemon* [scariosus var.] *albifluvis*) is a BLM sensitive perennial member of the plantain family endemic to the Green River formation in northeastern Utah and adjacent Rio Blanco County, Colorado. Additional information on the species is available in the Conservation Agreement and Strategy (Penstemon Conservation Team, 2014) and the Biological Status Report (USFWS, 2021)

Across the range of the species there are twenty-seven subpopulations with 21,624 acres of habitat within 300 feet of a known occurrence.

Habitat modeling for the species (BLM unpublished) identified 89,149 acres of habitat across the range of the species.

Occupied habitat for seven subpopulations intersects a lease. The first is a population found along Willow Creek within the Seep Ridge Unit (Willow Creek) with 722 acres of occupied habitat. The second are populations found primarily along Evacuation Creek (Evacuation Creek) with 715 acres of occupied habitat. The third are populations along Seep Ridge (below Seep Ridge) with 654 acres of occupied habitat. The fourth is a population within the northern portion of the White River Unit (White River) with 605 acres of occupied habitat. The fifth are populations to the east of the Dragon Road (Dragon) with 455 acres of occupied habitat. The sixth are populations to the east of Wagon Hound Canyon (Population A) with 39 acres of occupied habitat. The seventh is a population at the upper end of Buck Canyon (below Buck Canyon) with 33 acres of occupied habitat.

Existing activities are expected to continue (see Section 3.3). The current setting is described below for the occupied habitat and modeled suitable habitat across the range of the species

Occupied Habitat

Within 300 feet of known White River penstemon locations, there have been four fluid mineral well pads that have been constructed at some point in the past within Utah. There are 4,122 acres of habitat within 300 feet of known occurrences that are already leased through unrelated leasing actions (i.e. leases not reconsidered in this EA). A BLM route inventory identified 23 miles of linear routes on BLM managed lands within the Vernal FO within 300 feet of White River penstemon.

Modeled Suitable Habitat

Within modeled suitable habitat for White River penstemon, there are 66 wells that have been constructed at some point in the past. One additional well pad is currently proposed within modeled suitable habitat. There are 14,389.8 acres of modeled suitable habitat that are already leased through unrelated leasing actions (i.e. leases not reconsidered in this EA). A BLM route inventory identified 113 miles of linear routes on BLM managed lands within the Vernal FO within modeled suitable habitat for White River penstemon.

Environmental Affects

Impacts of Alternative A

Under Alternative A, the BLM would not affirm the leases. However, in the absence of a Land Use Plan Amendment closing lands to leasing, the lands could be considered for inclusion in future lease sales. No new impacts to Graham's penstemon occupied or suitable habitat associated with new Federal oil and gas development for the subject leases would occur under Alternative C in the foreseeable future.

Impacts of the Proposed Action (Alternative B)

Under Alternative B, 51 leases intersect modeled suitable habitat for the White River penstemon and 15 leases intersect occupied habitat for White River penstemon.

Occupied Habitat

Acres of occupied habitat, defined here as areas within 300 feet of a plant, is presented in Table 38.

Table 38: Acres and Estimated Disturbance (In Parenthesis) of White River Penstemon Occupied Habitat (300 Feet Around Known Occurrence) Acreage

Lease	Willow Creek	Evacuation Creek	Seep Ridge	White River	Dragon	Population A	Buck Canyon	Grand Total
UTU91949				2.5 (0)				2.5 (0)
UTU91950				62.5 (2.7)	36.4 (1.6)			98.9 (4.3)
UTU91953	5.8 (0)							5.8 (0)
UTU93684				8.4 (0.4)				8.4 (0.4)
UTU93686					47.2 (0.6)			47.2 (0.6)
UTU93688		50 (0.7)						50 (0.7)
UTU93903							31.2 (1.4)	31.2 (1.4)
UTU93905			255.7 (11.2)					255.7 (11.2)
UTU93906			6.3 (0.3)					6.3 (0.3)

Lease	Willow Creek	Evacuation Creek	Seep Ridge	White River	Dragon	Population A	Buck Canyon	Grand Total
UTU93907			46.3 (2)					46.3 (2)
UTU93921						0.4 (0)		0.4 (0)
UTU93935				14.2 (0.6)				14.2 (0.6)
UTU93937					4.1 (0.2)			4.1 (0.2)
UTU93938					186 (8.1)			186 (8.1)
UTU93939					30 (0)			30 (0)
Outside leases	716.2	665.4	345.2	517.2	151	38.4	1.8	2,435.10
Grand Total	722 (0)	715.4 (0.7)	653.6 (13.5)	604.7 (3.8)	454.8 (10.5)	38.8 (0)	33 (1.4)	3222.4 (29.8)

Using the foreseeable disturbance assumptions in Section 3.2.1, and assuming random placement of disturbance within the area, 29.8 acres may be directly impacted by the development representing between less than 0.1% and 4.1% of the occupied habitat in each subpopulation and 0.1% of the total occupied habitat for the species (Table 38).

Given the requirements of lease notice perform surveys and avoid individuals where feasible combined with the BLM's statutory and regulatory authority to apply reasonable measures consistent with lease rights granted, it is expected that impacts to occupied habitat at the lease development stage may be further reduced. However, given the distribution of the populations, topographic constraints, and locations of existing infrastructure (including existing collector roads) it is likely that 100% avoidance of occupied habitat will not be possible.

Modeled Suitable Habitat

Acres of modeled suitable habitat found in the leases and predicted disturbance is presented in Table 39.

Table 39: Modeled White River Penstemon Suitable Habitat and Potential Disturbance from future lease development

Lease	Acres Suitable Habitat	Acres Potential Disturbance
UTU93684	185.8	0.6
UTU91949	321.0	1.1
UTU93927	4.4	0.2
UTU93920	0.7	0.0
UTU91950	1,622.6	21.3

Lease	Acres Suitable Habitat	Acres Potential Disturbance
UTU93685	46.8	0.2
UTU93686	833.9	36.5
UTU93687	430.5	18.8
UTU93938	821.5	35.9
UTU93939	1,086.9	47.6

Lease	Acres Suitable Habitat	Acres Potential Disturbance	Lease	Acres Suitable Habitat	Acres Potential Disturbance
UTU93935	516.4	6.8	UTU93725	1.0	0.0
UTU93921	1.8	0.1	UTU92686	254.1	11.1
UTU93922	38.5	1.7	UTU93651	581.3	25.4
UTU93936	780.1	34.1	UTU93899	303.7	4.0
UTU93937	217.1	9.5	UTU93664	809.0	35.4
UTU93669	142.7	6.2	UTU93900	0.3	0.0
UTU93670	0.7	0.0	UTU93901	0.3	0.0
UTU93671	29.4	1.3	UTU93665	461.1	20.2
UTU93688	577.9	7.6	UTU93666	31.0	1.4
UTU93656	48.6	0.6	UTU93676	297.5	6.5
UTU93675	8.6	0.4	UTU93679	180.8	4.0
UTU93658	27.4	0.4	UTU93681	0.2	0.0
UTU93657	6.0	0.1	UTU93903	80.4	1.1
UTU93659	39.2	1.7	UTU93911	4.8	0.2
UTU93694	8.4	0.4	UTU93905	1,576.7	69.0
UTU93695	9.5	0.4	UTU93904	0.7	0.0
UTU93660	9.4	0.1	UTU93906	142.8	6.2
UTU93661	286.0	12.5	UTU93907	1,022.0	44.7
UTU93662	102.9	4.5	UTU91953	47.7	2.1
UTU93663	387.9	17.0	UTU93884	0.2	0.0
UTU93718	1.5	0.0	Grand Total	14,389.8	498.8

Using the foreseeable disturbance assumptions in Section 3.2.1 and assuming random placement of disturbance within the area, 498.8 acres of modeled suitable habitat would be directly impacted by the development. This represents 3.4% of the suitable habitat within the leases and 0.6% of the suitable habitat across the range of the species.

To minimize impacts, the following lease notice was applied to the leases:

Lease Notices

- UT-LN-51 – Special Status Plants: Not Federally Listed: All Leases

The above lease notice combined with Section 6 of the Standard Lease Terms and Conditions (43 CFR § 3101.12) identifies survey, avoidance, and minimization requirements for the species.

Impacts of Alternative C – Resource Conflict Avoidance Alternative

Under Alternative C, the leases identified in Table 2 would not be affirmed. A component of this Alternative is that all leases that intersect Graham's and White River Penstemon Conservation Areas would not be affirmed (see 3.5.10 for description of the Penstemon Conservation Areas). This, along with incidental of occupied habitat that overlaps other leases not affirmed due to other resources, considerably reduces but does not fully avoid suitable habitat for the species.

Occupied Habitat

Under Alternative C, no currently mapped occupied habitat intersects leases. Therefore, there would be no direct impacts to known occupied habitat. Given the requirements to perform surveys and avoid individuals where feasible, it is expected that impacts to potential unidentified occupied habitat would also be minimized. However, in the absence of a Land Use Plan amendment closing lands to leasing, the lands could be considered for inclusion in future lease sales.

Modeled Suitable Habitat

Twenty-two leases intersect 3,487 acres of modeled suitable habitat for White River penstemon. Using the foreseeable disturbance assumptions in Section 3.2.1, and assuming random placement of disturbance within the area, 137.3 acres of modeled suitable habitat may be directly impacted by the development. This represents 3.9% of the suitable habitat within the 22 leases and 0.2% of the suitable habitat across the range of the species.

To minimize impacts, the following lease notices were applied to the leases:

Lease Notices

- UT-LN-49 – Utah Sensitive Species: All Leases
- UT-LN-51 – Special Status Plants: Not Federally Listed: All Leases

The above lease notice combined with Section 6 of the Standard Lease Terms and Conditions (43 CFR § 3101.12) identifies survey, avoidance, and minimization requirements for the species.

3.5.10. Issue 9: Penstemon Conservation Areas

How would potential development of the leases affect conservation areas established for Graham's and White River penstemon?

Affected Environment

In 2014, the Conservation Agreement and Strategy for Graham's Beardtongue and White River Beardtongue was finalized between the State of Utah School and Institutional Trust Lands Administration (now Utah Trust Lands Administration (TLA)); Uintah County, Utah; Utah Public Lands Policy Coordination Office; Utah Division of Wildlife Resources; Rio Blanco County, Colorado; BLM, and USFWS "to identify, avoid, minimize potential threats to Graham's and White River beardtongues and their habitats, and to promote the species' long-term persistence, thereby preventing the need for listing either species (Penstemon Conservation Team, 2014). As part of this agreement, Conservation Areas were established for each species that would "encompass varying site conditions, promote species stability (high-density populations), maintain corridors between populations, and provide redundancy for each species." On federal lands, the conservation areas are managed to maintain a maximum of 5% new surface disturbance for Graham's penstemon and 2.5% new surface disturbance for White River penstemon after July 25, 2014 per Conservation Unit. The Conservation Areas encompass important areas of occupied habitat for each species but do not encompass all occupied habitat. Conversely, the Conservation Areas also encompass surrounding areas of proposed and suitable habitat that has not been found to be occupied to date.

The Conservation Areas were originally grouped into five population units (in 2018, an additional unit representing a disjunct population of White River penstemon was added). The leases fall within the Sand Wash, Seep Ridge, Evacuation Creek, and White River Units. Within the Sand Wash Unit there are 8,686 acres of BLM Conservation Areas (entirely with a 5% disturbance cap). In the Seep Ridge Unit there are 5,448 acres of BLM Conservation Areas (192 acres with a 2.5% disturbance cap and 5,256 acres with a 5% disturbance cap). In the Evacuation Creek Unit there are 8,536 acres of BLM Conservation Area (5,407 acres with a 2.5% disturbance cap and 3,128 acres with a 5% disturbance cap). In the White River Unit there are 9,362 acres of BLM Conservation Area (9,311 acres with a 2.5% disturbance cap and 51 acres with a 5% disturbance cap). Since the establishment of the Conservation Areas, the BLM has not authorized disturbance in the Sand Wash, Seep Ridge, or Evacuation Creek Units. In the White River Unit, 11.8 acres of disturbance have been authorized by the BLM White River FO in areas with a 2.5% disturbance cap. This represents an increase in disturbance of 0.1% within the portions of the Unit with an additional 2.5% disturbance cap (Penstemon Conservation Team, 2016; 2017; 2018; 2019) (Penstemon Conservation Team, 2020; 2021; 2022; 2023) (Penstemon Conservation Team, 2024).

Existing activities are expected to continue (see Section 3.3). Within the overlapping Conservation Areas there are eleven wells that have been constructed at some point in the past. No additional well pads are currently proposed. There are 9,600.8 acres of the Conservation Areas that are already leased through unrelated leasing actions (i.e. leases not reconsidered in this EA). A BLM route inventory identified 15 miles of linear routes on BLM managed lands within the Vernal FO within the Conservation Areas within the Vernal FO.

Environmental Affects

Impacts of Alternative A

Under the Alternative A, the BLM would not affirm any of the leases. However, in the absence of a Land Use Plan amendment closing lands to leasing, the lands could be considered for inclusion in future lease sales. No new impacts to Conservation Areas associated with new Federal oil and gas development for the subject leases would occur under Alternative A in the foreseeable future.

Impacts of the Proposed Action (Alternative B)

White River penstemon Conservation Areas (2.5% New Disturbance Cap)

Ten leases intersect conservation areas established to support White River penstemon in two units (Table 40).

Table 40: Acres and Estimated Disturbance (in parenthesis) of BLM White River Penstemon Conservation Areas by Lease and Conservation Unit

Lease	Evacuation Creek	White River	Grand Total
UTU91949		322.7 (1.1)	322.7 (1.1)
UTU91950		2072.9 (27.2)	2072.9 (27.2)
UTU93684		208.8 (0.7)	208.8 (0.7)
UTU93686	664.1 (29.1)	93.6 (4.1)	757.8 (33.2)
UTU93687	1251 (54.7)		1251 (54.7)
UTU93688	601 (7.9)		601 (7.9)
UTU93935		461.9 (6.1)	461.9 (6.1)
UTU93937		135.5 (5.9)	135.5 (5.9)
UTU93938		880.7 (38.5)	880.7 (38.5)
UTU93939	1290.9 (56.5)		1290.9 (56.5)
Outside Leases	1,600.30	5,134.30	6,926.70
Grand Total	5407.4 (148.2)	9310.5 (83.6)	14910 (231.7)
Percent Disturbed	2.70%	0.90%	

Using the foreseeable disturbance assumptions in Section 3.2.1 and assuming random placement of disturbance within the area, 231.7 acres of White River Penstemon Conservation Areas may be directly disturbed by the development (Table 40).

Using the assumption of random placement, disturbance to BLM White River Penstemon Conservation Areas within the White River Unit would result in 0.9% disturbance towards the 2.5% cap (Table 40). With the 11.8 acres of disturbance approved already approved within the Conservation Area in the White River FO, there would be 1.0% disturbance. Therefore, new disturbance would not exceed the new surface disturbance cap for the unit.

Using the assumption of random placement of disturbance, disturbance to BLM White River Penstemon Conservation Areas within the Evacuation Creek Unit would exceed the 2.5% disturbance cap (2.7% disturbance; Table 40). However, the BLM's authority to move infrastructure up to 800 meters (Section 6 of the Standard Lease Terms and Conditions: 43 CFR 3101.12) would allow the BLM to ensure that new disturbance remains below the cap. For two

of the four leases intersecting White River Penstemon Conservation Areas in the Evacuation Creek Unit, UTU93687 and UTU93688, all areas within the Conservation Areas are less than 800 meters from on-lease area that are outside of the Conservation Area. The other two intersecting leases have portions of the lease that are more than 800 meters from on-lease area outside of the Conservation Area but these are a minority of the area (UTU93686 has 137 acres out of 1,197 acres and UTU93939 has 346 acres out of the 2,153 acres).

Graham's penstemon Conservation Areas (5% New Disturbance Cap)

Fourteen leases intersect conservation areas established to support Graham's penstemon across four units (Table 41).

Table 41 Acres and Estimated Disturbance of BLM Graham's Penstemon Conservation Areas by Lease and Conservation Unit

Lease	Sand Wash	Seep Ridge	Evacuation Creek	White River	Grand Total
UTU91950				0.5 (0)	0.5 (0)
UTU93670			331.8 (14.5)		331.8 (14.5)
UTU93671			150.2 (6.6)		150.2 (6.6)
UTU93672			1168.2 (51.1)		1168.2 (51.1)
UTU93673			1354.1 (59.2)		1354.1 (59.2)
UTU93902		182.9 (2.4)			182.9 (2.4)
UTU93903		408.3 (5.4)			408.3 (5.4)
UTU93904		331.6 (14.5)			331.6 (14.5)
UTU93905		1579.8 (69.1)			1579.8 (69.1)
UTU93906		547.7 (24)			547.7 (24)
UTU93907		689 (30.1)			689 (30.1)
UTU93910		65.4 (2.9)			65.4 (2.9)
UTU93921				4.8 (0.2)	4.8 (0.2)
UTU94135	39.4 (0.5)				39.4 (0.5)
Outside Leases	8,646.30	1,451.10	124	45.8	10,267.20
Grand Total	8685.7 (0.5)	5255.7 (148.3)	3128.4 (131.4)	51.2 (0.2)	17121 (280.5)
Percent Disturbed	0.00%	2.80%	4.20%	0.40%	

Using the foreseeable disturbance assumptions in Section 3.2.1 and assuming random placement of disturbance within the area, 280.5 acres of Graham's Penstemon Conservation Areas may be directly disturbed by the development (Table 41).

Using the assumption of random placement, disturbance to BLM Graham's Penstemon Conservation Areas within the Sand Wash Unit would result in less than 0.05% disturbance towards the 5% cap, 2.8% disturbance towards the cap in the Seep Ridge Unit, 4.2% disturbance towards the cap in the Evacuation Creek Unit, and 0.4% in the White River Unit (Table 41). No other disturbance has been approved since the signing of the Conservation Agreement in Graham's Penstemon Conservation Areas within the intersecting Units. Therefore, development of the subject leases, even without targeted avoidance, would not exceed the disturbance caps in the any unit.

To minimize impacts, the following lease notice was applied to the leases:

Lease Notices

- UT-LN-134 – Graham’s beardtounge (*Penstemon grahamii*) & White River beardtounge (*P. scariosus* var. *albifluvis*) Conservation Area: Leases in Table 40 and Table 41

The above lease notice combined with Section 6 of the Standard Lease Terms and Conditions (43 CFR § 3101.12) identifies that the lease is subject to the management requirements of Conservation Agreement.

Impacts of Alternative C – Resource Conflict Avoidance Alternative

Under Alternative C, the leases identified in Table 2 would not be affirmed. A component of this Alternative is that all leases that intersect Graham’s and White River Penstemon Conservation Areas would not be affirmed. Therefore, there would be no future impacts from lease activities on any Conservation Areas. However, in the absence of a Land Use Plan amendment closing lands to leasing, the lands could be considered for inclusion in future lease sales.

CHAPTER 4. LITERATURE CITED

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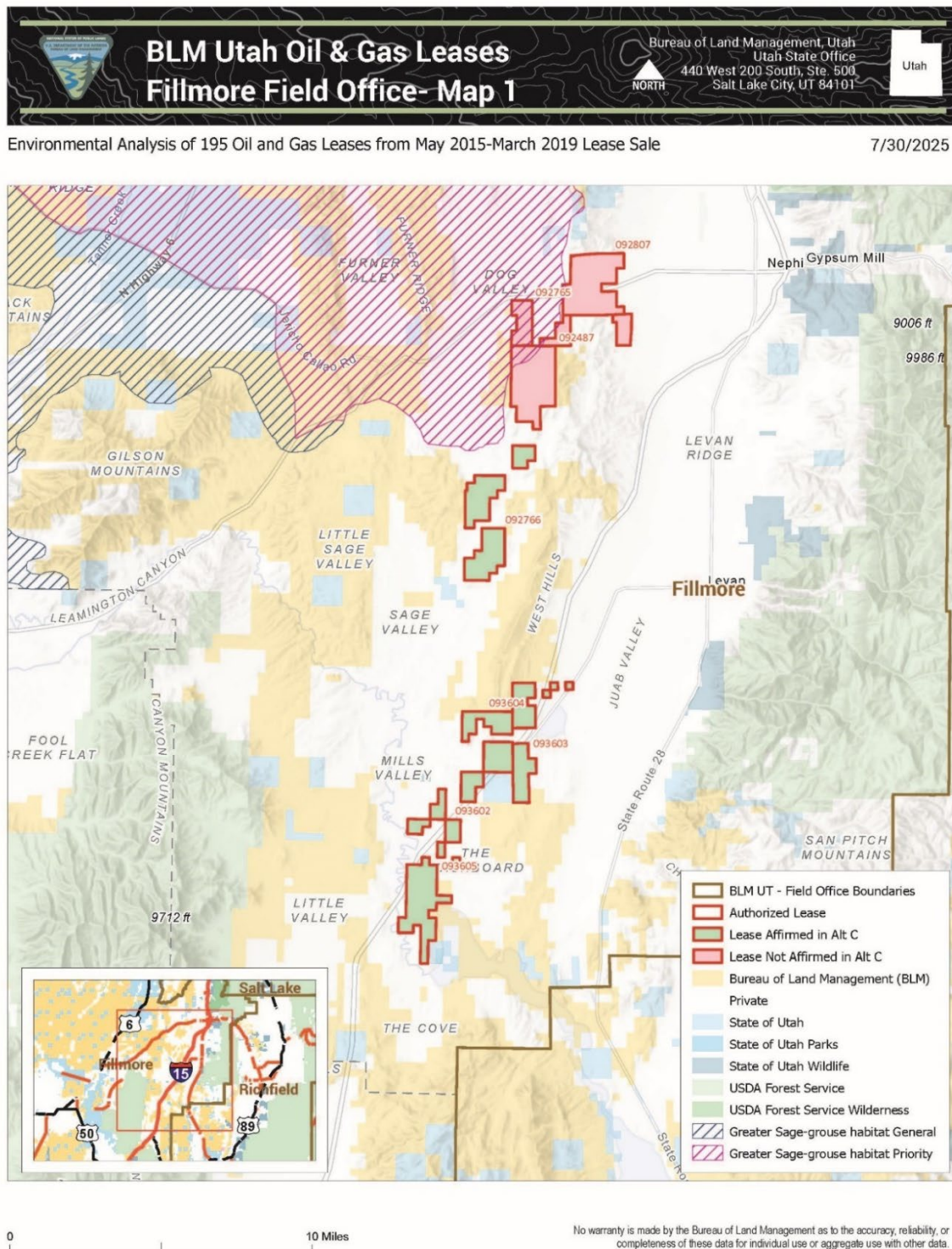
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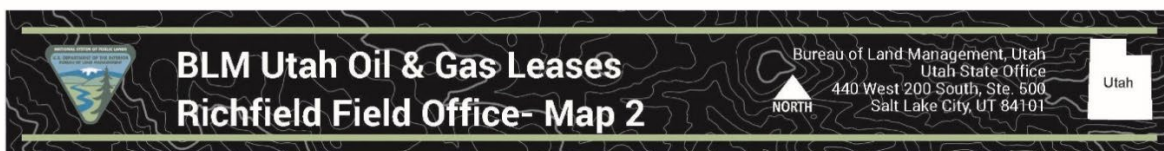
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APPENDIX A. MAPS

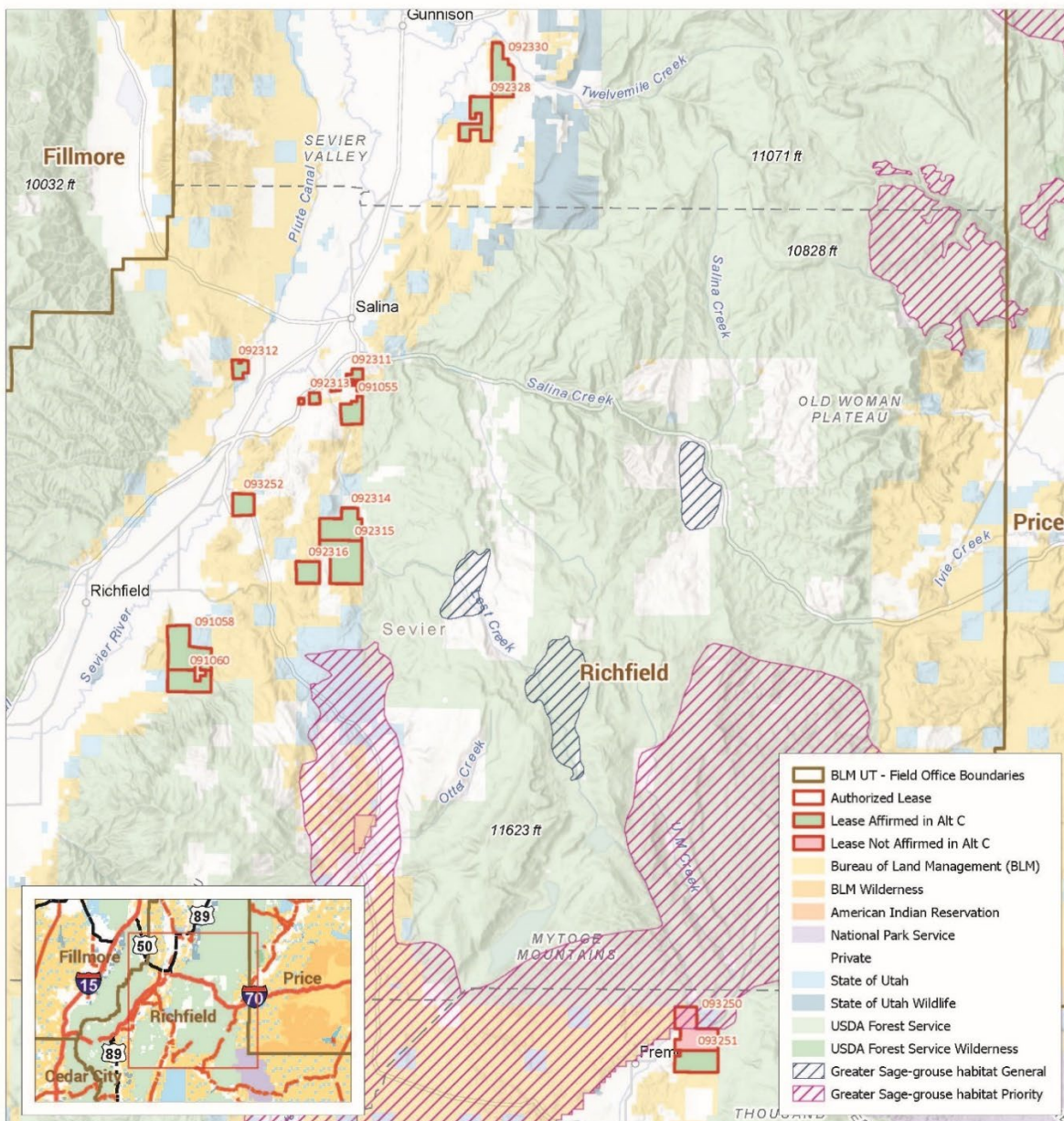


Map 1: Fillmore Field Office



Environmental Analysis of 195 Oil and Gas Leases from May 2015-March 2019 Lease Sale

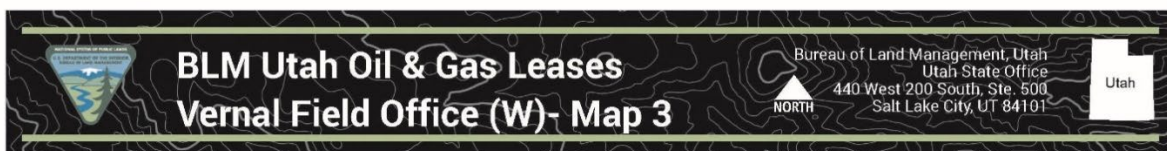
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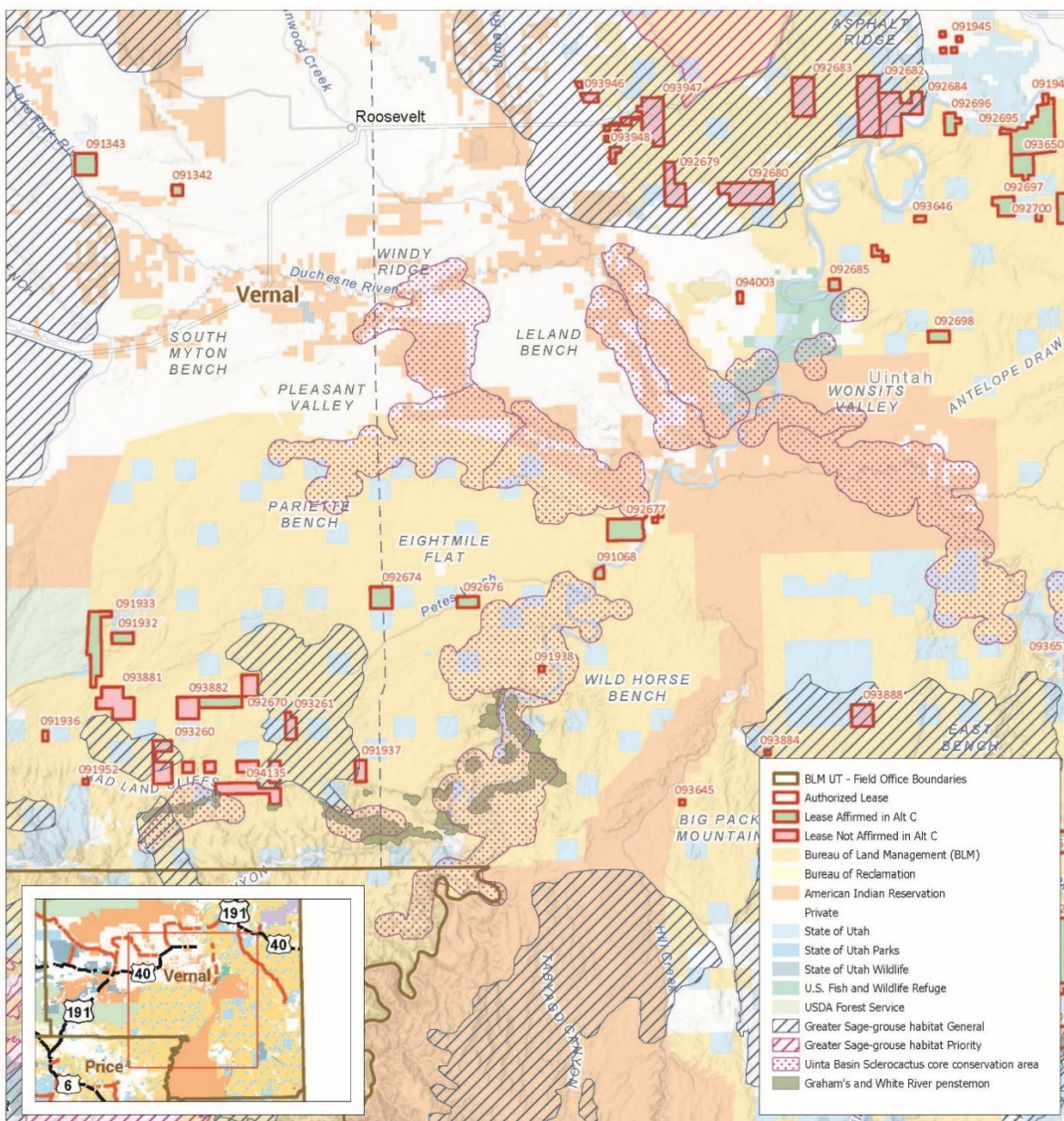
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Map 2: Richfield Field Office



Environmental Analysis of 195 Oil and Gas Leases from May 2015-March 2019 Lease Sale

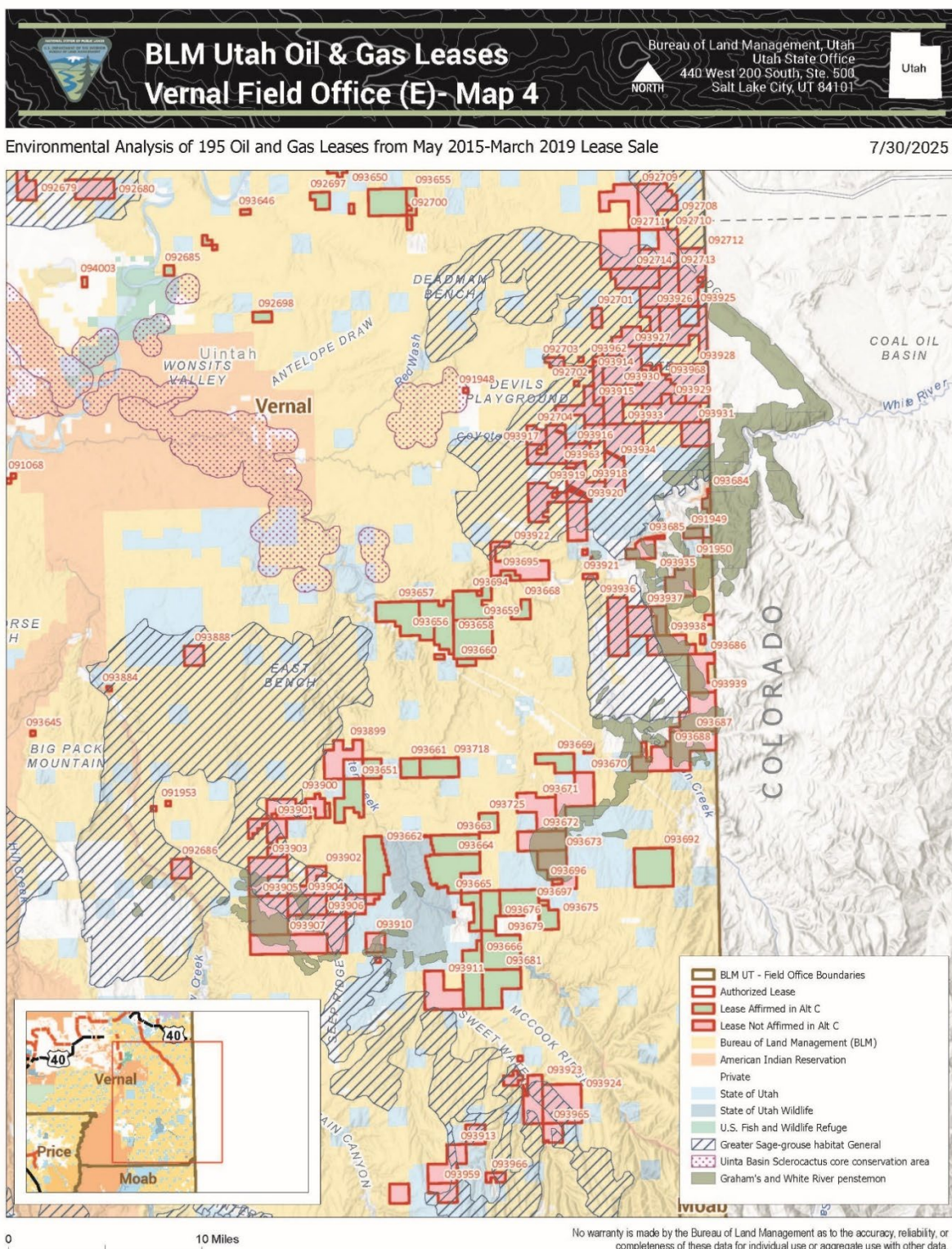
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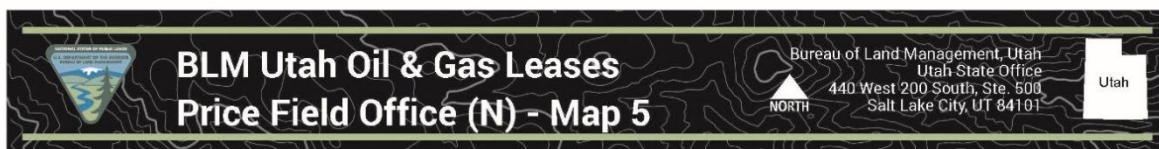
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Map 3: Vernal Field Office (W)

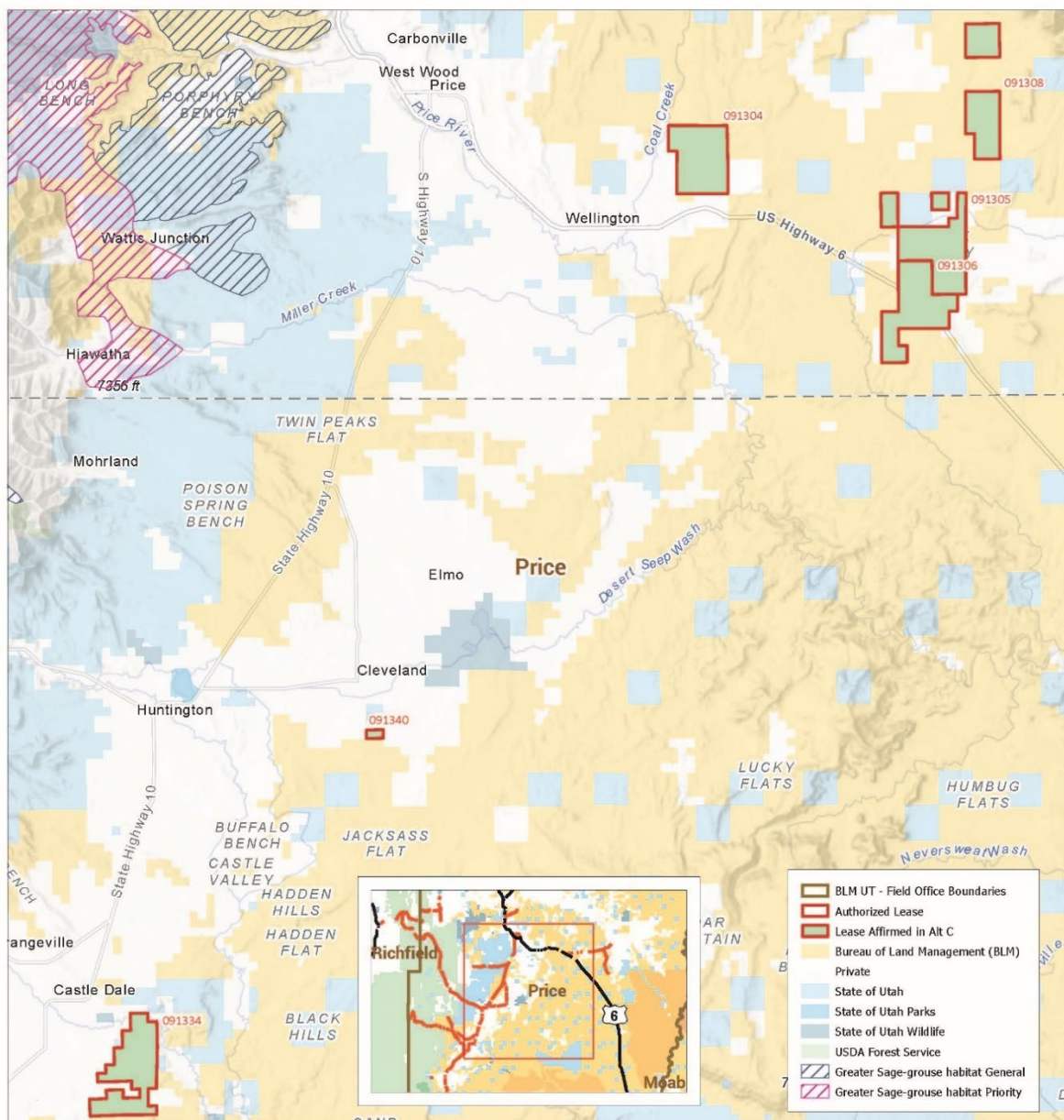


Map 4: Vernal Field Office (E)



Environmental Analysis of 195 Oil and Gas Leases from May 2015-March 2019 Lease Sale

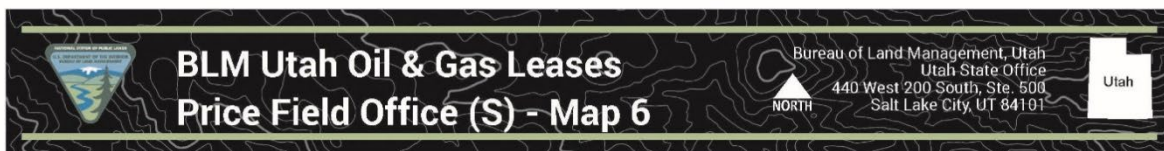
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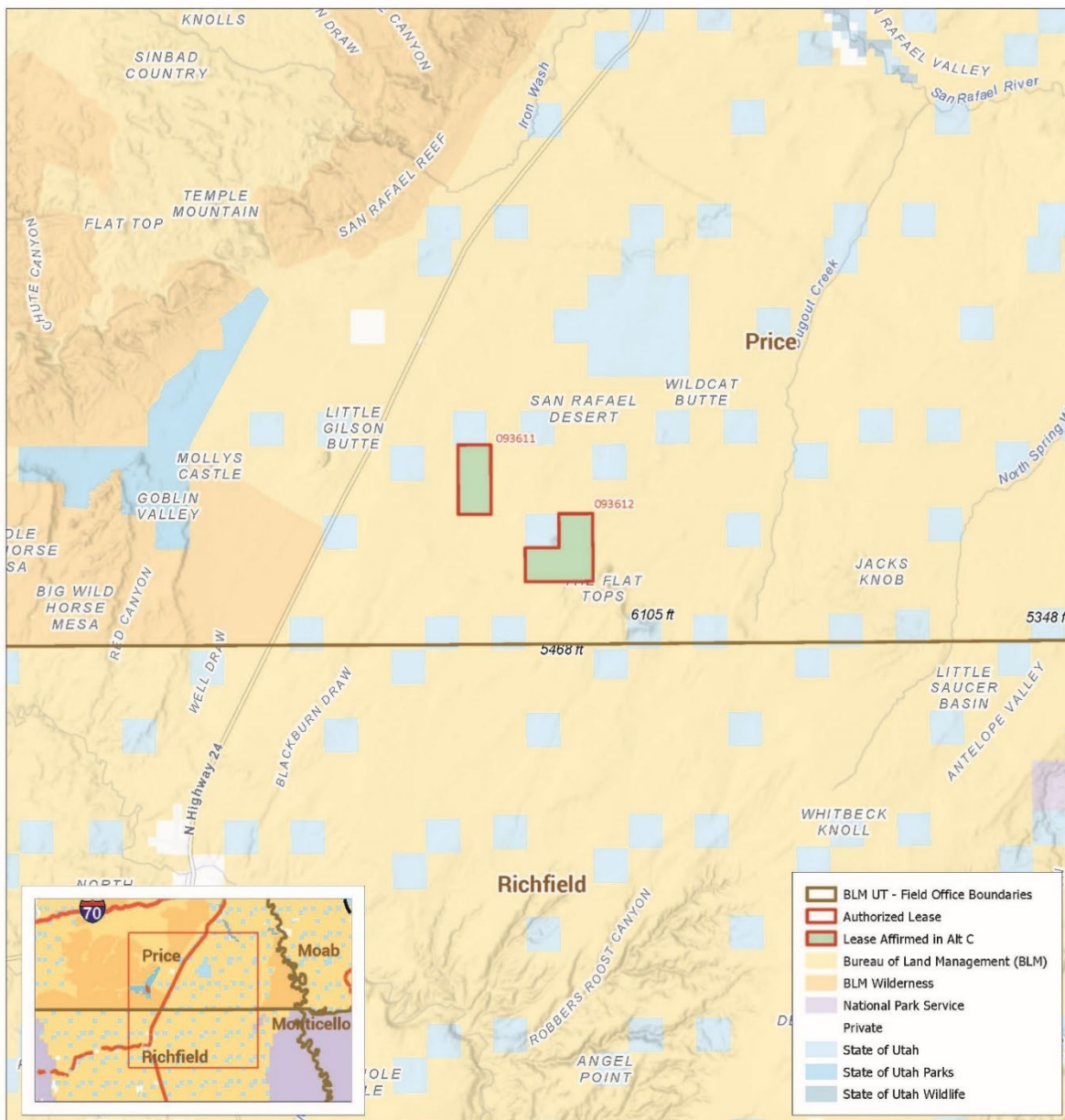
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Map 5: Price Field Office (N)



Environmental Analysis of 195 Oil and Gas Leases from May 2015-March 2019 Lease Sale

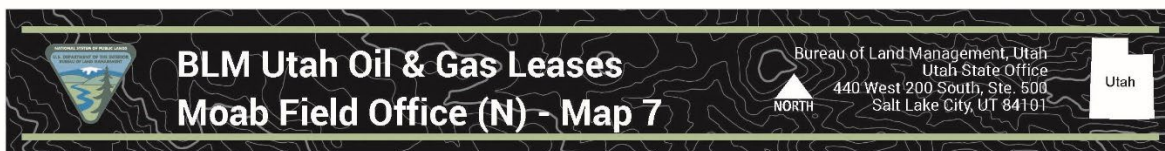
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0 10 Miles

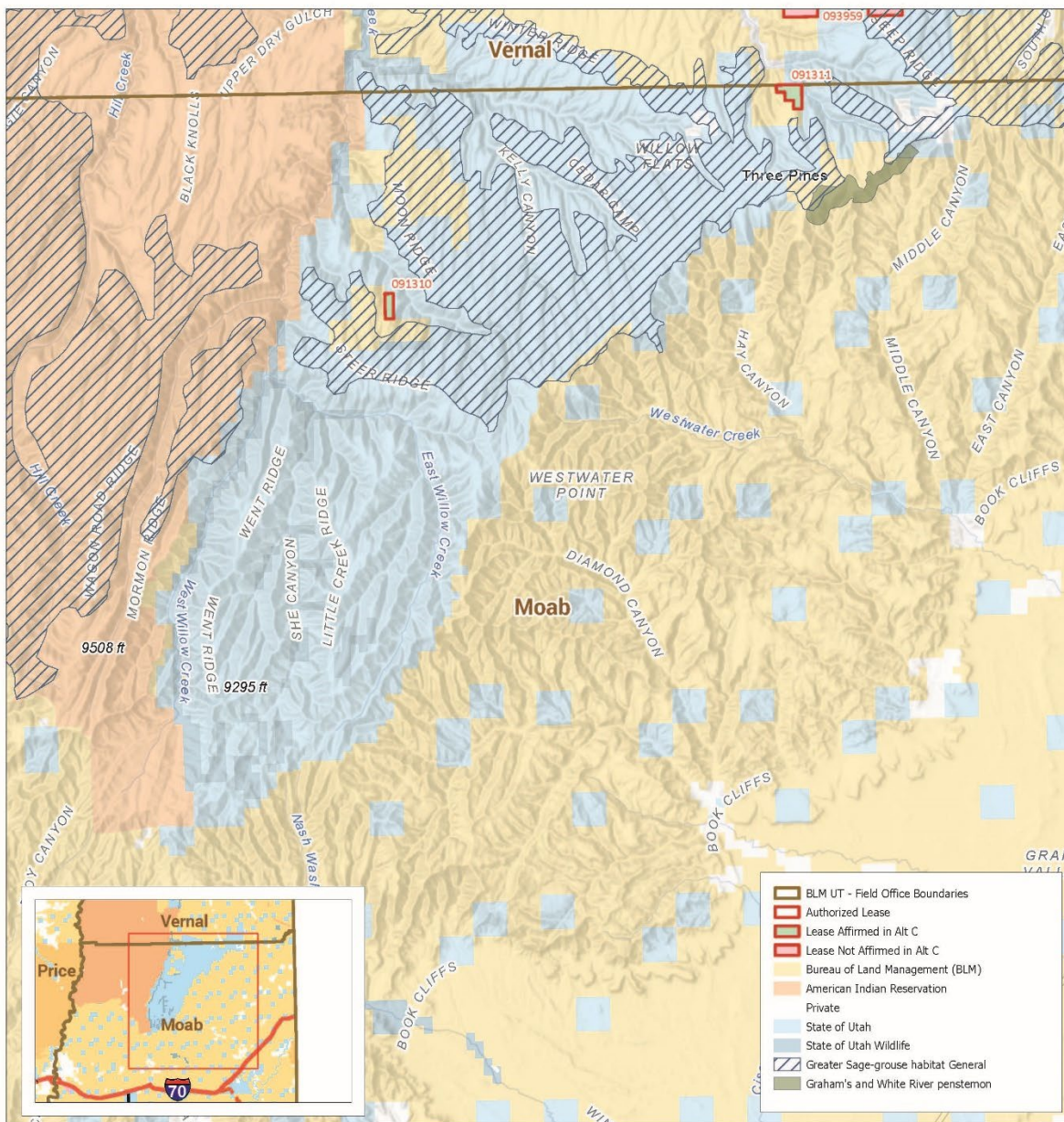
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Map 6: Price Field Office (S)



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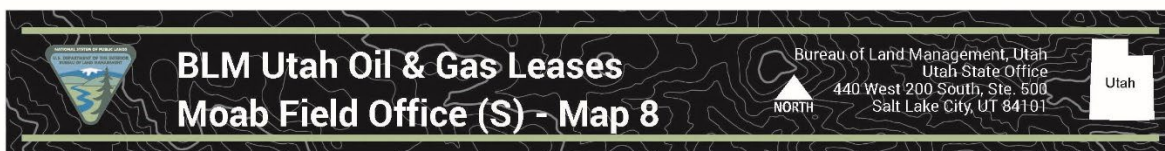
7/30/2025



0 10 Miles

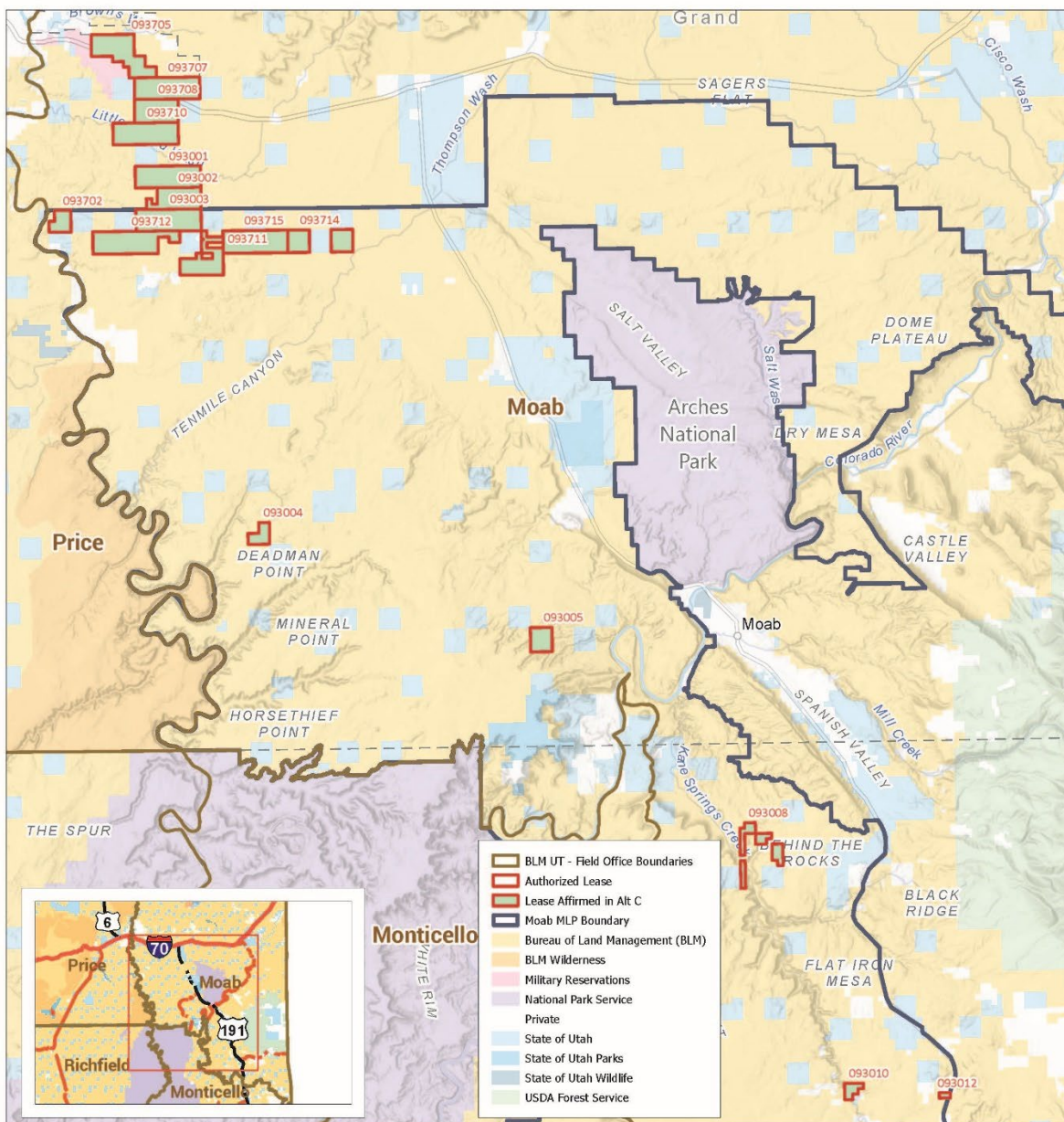
No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data.

Map 7: Moab Field Office (N)



Environmental Analysis of 195 Oil and Gas Leases from May 2015-March 2019 Lease Sale

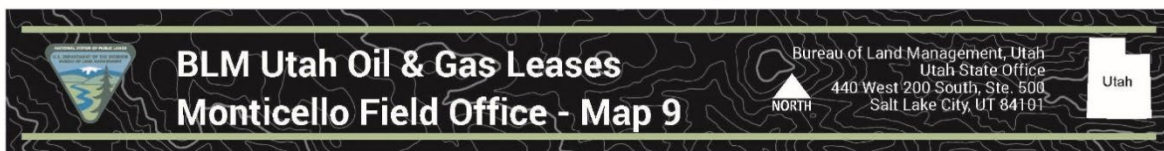
7/30/2025



0 10 Miles

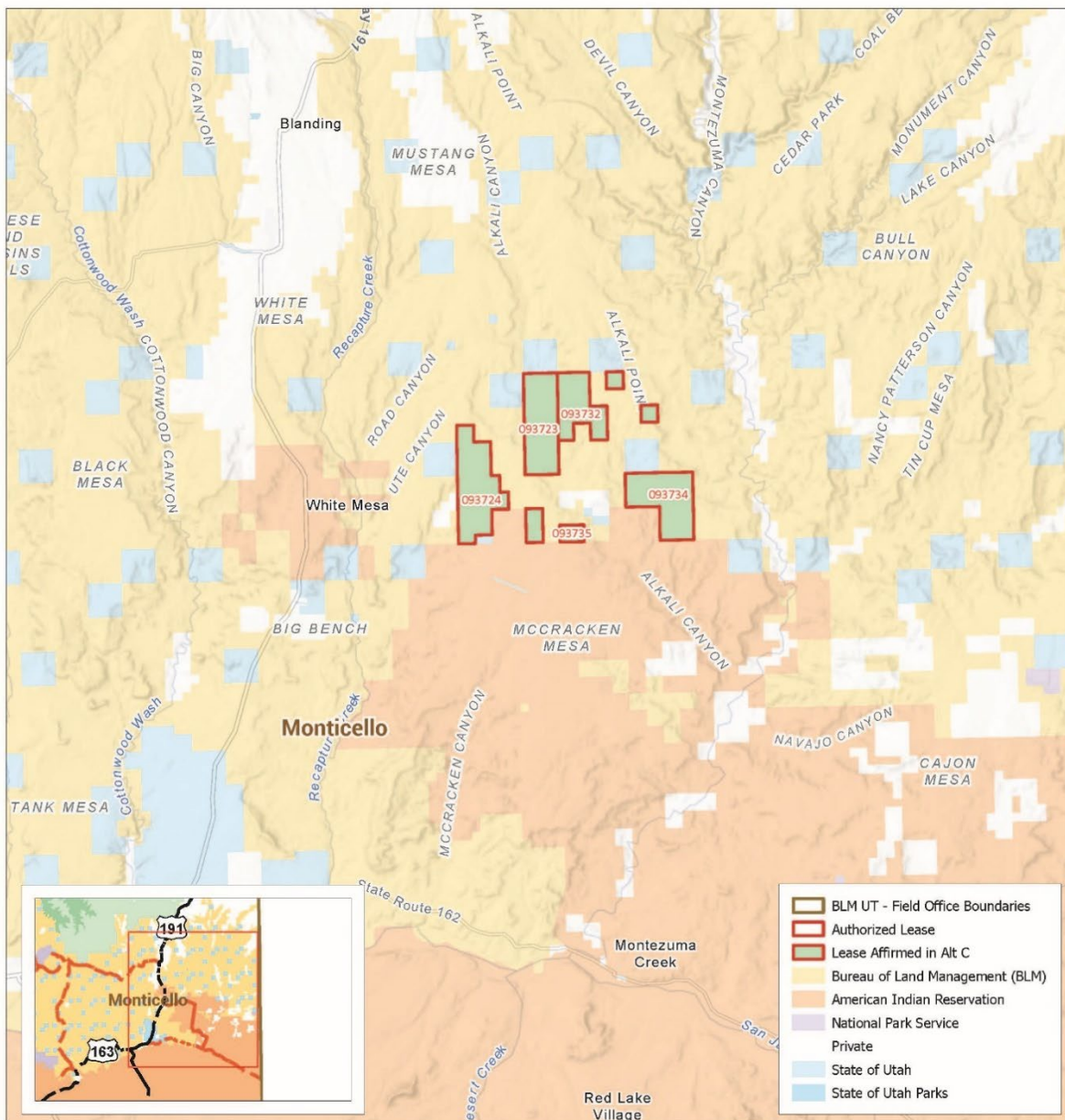
No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data.

Map 8: Moab Field Office (S)



Environmental Analysis of 195 Oil and Gas Leases from May 2015-March 2019 Lease Sale

7/30/2025



0 10 Miles

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.

Map 9: Monticello Field Office

APPENDIX B. STIPULATIONS AND NOTICES

Lease stipulations and notices applied to each lease are listed in B.1. Items with an asterisk (*) are stipulations or notices that were included in the approved land use plans that were in place at the time of issuance but not applied to the lease at the time of lease issuance and will be added to the lease. For descriptions of each stipulation and notice, see section B.2. In addition to the lease specific stipulations and notices listed below, the stipulations and notices presented in this table apply to **ALL** leases:

Stipulations	Notices
HQ-CR-1 Cultural Resources Protection (Handbook H-3120-1)	HQ-MLA-1 Notice to Lessee (MLA)
HQ-TES-1 Threatened & Endangered Species Act (Handbook H-3120-1)	

B.1 LEASE STIPULATIONS AND NOTICES BY LEASE

UTU91055

(UT0515 – 001)

T. 22 S., R. 1 W., Salt Lake

Sec. 11: Lots 1-6;

Sec. 12: W2NENE, S2NWNE, SENE, SESE;

Sec. 13: Lots 1-4, E2, S2N2NW, S2NW.

947.12 Acres

Sevier County, Utah

Richfield Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-102: CSU – Fragile Soils/Slopes 30 Percent or Greater

*UT-S-111: NSO – Wetland/Hydric Soils

UT-S-121: NSO – Riparian and Wetland Areas

*UT-S-221: CSU/TL – Utah Prairie Dog

UT-S-233: TL – Crucial Mule Deer and Elk Winter Habitat

*UT-S-314: CSU/TL – Ute Ladies'-Tresses

LEASE NOTICES

UT-LN-40: Golden Eagle Habitat

UT-LN-45: Migratory Bird

UT-LN-49: Utah Sensitive Species

*UT-LN-51: Special Status Plants: Not Federally Listed

UT-LN-52: Noxious Weeds

*UT-LN-53: Riparian Areas

*UT-LN-65: Old Spanish Trail

*UT-LN-72: High Potential Paleontological Resources

UT-LN-91: Water and Watershed Protection

*UT-LN-96: Air Quality Mitigation Measures

UT-LN-99: Regional Ozone Formation Controls
*UT-LN-101: Air Quality
UT-LN-102: Air Quality Analysis
UT-LN-113: Western Yellow-Billed Cuckoo
*UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-05: Listed Plant Species
T&E-09: Utah Prairie Dog
T&E-19: Jones Cycladenia (*Cycladenia Hymilis Var Jonesii*)
*T&E-22: Ute Ladies' Tresses (*spiranthes diluvialis*)
*T&E-27: Yellow-Billed Cuckoo

UTU91058

(UT0515 – 005)

T. 24 S., R. 2 W., Salt Lake

Secs. 3 and 10: All;

Sec. 11: Lots 1, 3-14, E2NW.

1,922.745 Acres

Sevier County, Utah

Richfield Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-102: CSU – Fragile Soils/Slopes 30 Percent or Greater
*UT-S-111: NSO – Wetland/Hydric Soils
UT-S-121: NSO – Riparian and Wetland Areas
UT-S-171: NSO – Cultural Resources
UT-S-233: TL – Crucial Mule Deer and Elk Winter Habitat
*UT-S-314: CSU/TL – Ute Ladies'-Tresses

LEASE NOTICES

UT-LN-40: Golden Eagle Habitat
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-52: Noxious Weeds
*UT-LN-53: Riparian Areas
*UT-LN-65: Old Spanish Trail
*UT-LN-72: High Potential Paleontological Resources
UT-LN-91: Water and Watershed Protection
*UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
*UT-LN-101: Air Quality
UT-LN-102: Air Quality Analysis
*UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-05: Listed Plant Species

T&E-19: Jones Cycladenia (*Cycladenia Hymilis Var Jonesii*)
*T&E-22: Ute Ladies' Tresses (*spiranthes diluvialis*)

UTU91060

(UT0515 – 007)

T. 24 S., R. 2 W., Salt Lake

Sec. 14: Lots 1-4, NENE, S2NE, W2NW, SW;

Sec. 15: All.

1,172.53 Acres

Sevier County, Utah

Richfield Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-102: CSU – Fragile Soils/Slopes 30 Percent or Greater
*UT-S-111: NSO – Wetland/Hydric Soils
UT-S-121: NSO – Riparian and Wetland Areas
UT-S-171: NSO – Cultural Resources
UT-S-233: TL – Crucial Mule Deer and Elk Winter Habitat
*UT-S-314: CSU/TL – Ute Ladies'-Tresses

LEASE NOTICES

UT-LN-40: Golden Eagle Habitat
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-52: Noxious Weeds
*UT-LN-53: Riparian Areas
*UT-LN-65: Old Spanish Trail
*UT-LN-72: High Potential Paleontological Resources
UT-LN-91: Water and Watershed Protection
*UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
*UT-LN-101: Air Quality
UT-LN-102: Air Quality Analysis
*UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-05: Listed Plant Species
T&E-19: Jones Cycladenia (*Cycladenia Hymilis Var Jonesii*)
*T&E-22: Ute Ladies' Tresses (*spiranthes diluvialis*)

UTU91068

(UT1114 – 132)

T. 9 S., R. 19 E., Salt Lake

Sec. 13: NWNE, SENW;

Sec. 28: Lots 11-14, SESE.
213.72 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
*UT-S-22: NSO/CSU/TL– Lower Green River ACEC
UT-S-96: NSO – Fragile Soils/Slopes Greater Than 40%
UT-S-100: CSU – Fragile Soils/Slopes (21%- 40%)
UT-S-117: NSO – River Corridors: Lower Green River
UT-S-119: NSO – Lower Green River Corridor
UT-S-123: NSO – Riparian, Flood Plains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-159: CSU – Visual Resources - VRM II
UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat
UT-S-261: TL – Raptor Buffers
UT-S-278: CSU – Bald Eagle Winter Roost

LEASE NOTICES

UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
*UT-LN-56: Drinking Water Source Protection Zone
*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-113: Yellow-Billed Cuckoo
UT-LN-115: Light and Sound
*UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-12: Pariette Cactus (*sclerocactus brevispinus*) and Uinta Basin Hookless Cactus
[*sclerocactus glaucus (brevispinus and wetlandicus)*]
T&E-20: Clay Reed – Mustard (*schoenocrambe argillacea*)
*T&E-27: Yellow-Billed Cuckoo

UTU91304

(UT1115 – 006)
T. 14 S., R. 11 E., Salt Lake
Sec. 26: All;
Sec. 27: E2, E2NW, NESW;
Sec. 34: E2;

Sec. 35: All.
2,040.00 Acres
Carbon County, Utah
Price Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-127: NSO – Intermittent and Perennial Streams
UT-S-169: CSU – Cultural Resource Inventories
UT-S-218: CSU – White-tailed Prairie Dog
UT-S-305: CSU – Noxious Weed

LEASE NOTICES

UT-LN-15: Pronghorn Fawning
UT-LN-44: Raptors
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-53: Riparian Areas
*UT-LN-72: High Potential Paleontological Resources
*UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formations Controls
UT-LN-102: Air Quality Analysis
UT-LN-104: Burrowing Owl Habitat
*UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
*T&E-05: Listed Plant Species
*T&E-27: Yellow-Billed Cuckoo

UTU91305

(UT1115 – 014)
T. 15 S., R. 12 E., Salt Lake
Sec. 1: Lots 1, 3-7, S2NW, SWSE;
Sec. 3: Lots 1, 2, S2NE, SE;
Sec. 11: All excluding RR ROW SL031859;
Sec. 12: Lots 3, 4, SW, W2SE, Excluding RR ROW SL031859;
Sec. 13: All.
2,285.98 Acres
Carbon County, Utah
Price Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-101: CSU – Fragile Soils/Slopes 20-40 Percent
UT-S-126: NSO – Natural Springs
UT-S-127: NSO – Intermittent and Perennial Streams
UT-S-169: CSU – Cultural Resource Inventories
UT-S-218: CSU – White-tailed Prairie Dog

UT-S-305: CSU – Noxious Weed

LEASE NOTICES

UT-LN-15: Pronghorn Fawning

UT-LN-44: Raptors

UT-LN-49: Utah Sensitive Species

*UT-LN-51: Special Status Plants: Not Federally Listed

*UT-LN-53: Riparian Areas

*UT-LN-72: High Potential Paleontological Resources

*UT-LN-96: Air Quality Mitigation Measures

UT-LN-99: Regional Ozone Formations Controls

UT-LN-102: Air Quality Analysis

UT-LN-104: Burrowing Owl Habitat

*UT-LN-128: Floodplain Management

*UT-LN-156: Pollinators and Pollinator Habitat

T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin

*T&E-05: Listed Plant Species

*T&E-22: Ute Ladies' Tresses (*spiranthes diluvialis*)

UTU91306

(UT1115 – 015)

T. 15 S., R. 12 E., Salt Lake

Sec. 14: All;

Sec. 22: SE;

Sec. 23: All;

Sec. 24: W2NE, W2;

Sec. 26: W2SW;

Sec. 27: E2.

2,240.00 Acres

Carbon County, Utah

Price Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-101: CSU – Fragile Soils/Slopes 20-40 Percent

UT-S-126: NSO – Natural Springs

UT-S-127: NSO – Intermittent and Perennial Streams

UT-S-169: CSU – Cultural Resource Inventories

UT-S-218: CSU – White-tailed Prairie Dog

UT-S-285: TL – Migratory Bird Nesting

UT-S-305: CSU – Noxious Weed

LEASE NOTICES

UT-LN-15: Pronghorn Fawning

UT-LN-44: Raptors

UT-LN-45: Migratory Bird

UT-LN-49: Utah Sensitive Species

- *UT-LN-51: Special Status Plants: Not Federally Listed
- *UT-LN-53: Riparian Areas
- *UT-LN-72: High Potential Paleontological Resources
- *UT-LN-96: Air Quality Mitigation Measures
- UT-LN-99: Regional Ozone Formations Controls
- UT-LN-102: Air Quality Analysis
- UT-LN-104: Burrowing Owl Habitat
- *UT-LN-128: Floodplain Management
- *UT-LN-156: Pollinators and Pollinator Habitat
- *T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
- *T&E-05: Listed Plant Species
- *T&E-22: Ute Ladies' Tresses (*spiranthes diluvialis*)

UTU91308

(UT1115 – 021)

T. 14 S., R. 13 E., Salt Lake

Secs. 7 and 19: All;

Sec. 30: Lot 1, E2, E2W2.

1,813.60 Acres

Carbon County, Utah

Price Field Office

STIPULATIONS

- UT-S-01: Air Quality
- UT-S-101: CSU – Fragile Soils/Slopes 20-40 Percent
- UT-S-127: NSO – Intermittent and Perennial Streams
- UT-S-169: CSU – Cultural Resource Inventories
- UT-S-218: CSU – White-tailed Prairie Dog
- UT-S-232: TL – Mule Deer and Elk Crucial Winter Range
- UT-S-305: CSU – Noxious Weed

LEASE NOTICES

- UT-LN-15: Pronghorn Fawning
- UT-LN-44: Raptors
- UT-LN-49: Utah Sensitive Species
- *UT-LN-51: Special Status Plants: Not Federally Listed
- *UT-LN-53: Riparian Areas
- *UT-LN-72: High Potential Paleontological Resources
- *UT-LN-96: Air Quality Mitigation Measures
- UT-LN-99: Regional Ozone Formations Controls
- UT-LN-102: Air Quality Analysis
- UT-LN-104: Burrowing Owl Habitat
- UT-LN-121: NSO – PL 97-98 – Prime Soils of Statewide Significance
- *UT-LN-128: Floodplain Management
- *UT-LN-156: Pollinators and Pollinator Habitat
- *T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
- *T&E-05: Listed Plant Species

*T&E-22: Ute Ladies' Tresses (*spiranthes diluvialis*)

UTU91310

(UT1115 – 058)

T. 16 S., R. 21 E., Salt Lake

Sec. 34: SWNW, W2SW.

120.00 Acres

Grand County, Utah

Moab Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-96: NSO – Fragile Soils/Slopes Greater Than 40%

UT-S-100: CSU – Fragile Soils/Slopes (21%- 40%)

UT-S-157: NSO/CSU/TL – Visual Resources

UT-S-159: CSU – Visual Resources – VRM II

UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat

UT-S-261: TL – Raptor Buffers

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

*UT-S-358: Air Quality and Greenhouse Gases

*UT-S-359: Air Quality I

*UT-S-360: Air Quality II

*UT-S-386: NSO – Water Resources

*UT-S-387: NSO – Ephemeral Streams

LEASE NOTICES

UT-LN-37: Bald Eagle Habitat

UT-LN-40: Golden Eagle Habitat

UT-LN-45: Migratory Bird

UT-LN-49: Utah Sensitive Species

*UT-LN-50: Habitat Restoration

UT-LN-51: Special Status Plants: Not Federally Listed

*UT-LN-53: Riparian Areas

UT-LN-67: Historical and Cultural Resource Values

UT-LN-68: Notification and 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-136: Air Quality

*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper
Colorado River Drainage Basin

*T&E-05: Listed Plant Species

T&E-06: Mexican Spotted Owl

*T&E-25: Mexican Spotted Owl

UTU91311

(UT1115 – 062)

T. 15 1/2 S., R. 23 E., Salt Lake

Sec. 33: Lot 1;

Sec. 34: Lots 3, 4, N2SW, SESW.

220.82 Acres

Grand County, Utah

Moab Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-96: NSO – Fragile Soils/Slopes Greater Than 40%

UT-S-100: CSU – Fragile Soils/Slopes (21%- 40%)

*UT-S-122: NSO Floodplains, Riparian Areas, Springs and Public Water Resources

UT-S-157: NSO/CSU/TL – Visual Resources

UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat

UT-S-261: TL – Raptor Buffers

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

*UT-S-358: Air Quality and Greenhouse Gases

*UT-S-359: Air Quality I

*UT-S-360: Air Quality II

LEASE NOTICES

UT-LN-37: Bald Eagle Habitat

UT-LN-40: Golden Eagle Habitat

UT-LN-45: Migratory Bird

UT-LN-49: Utah Sensitive Species

*UT-LN-50: Habitat Restoration

UT-LN-51: Special Status Plants: Not Federally Listed

*UT-LN-53: Riparian Areas

UT-LN-67: Historical and Cultural Resource Values

UT-LN-68: Notification and 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-136: Air Quality

*UT-LN-156: Pollinators and Pollinator Habitat

T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin

*T&E-05: Listed Plant Species

T&E-06: Mexican Spotted Owl

*T&E-25: Mexican Spotted Owl

UTU91334

(UT1115 – 151)

T. 19 S., R. 8 E., Salt Lake

Sec. 1: Lots 2, 3, 5, 6, S2NE, SENW, SW, S2SE;

Sec. 11: E2NE, SESW, SE;

Sec. 12: All;

Sec. 13: N2NE, SWNE, NENW, SW, W2SE, SESE;

Sec. 14: S2NE, S2.

2,276.22 Acres

Emery County, Utah

Price Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-127: NSO – Intermittent and Perennial Streams

UT-S-169: CSU – Cultural Resource Inventories

UT-S-218: CSU – White-tailed Prairie Dog

UT-S-305: CSU – Noxious Weed

LEASE NOTICES

UT-LN-44: Raptors

UT-LN-49: Utah Sensitive Species

*UT-LN-51: Special Status Plants: Not Federally Listed

*UT-LN-53: Riparian Areas

*UT-LN-65: Old Spanish Trail

*UT-LN-72: High Potential Paleontological Resources

*UT-LN-96: Air Quality Mitigation Measures

UT-LN-99: Regional Ozone Formations Controls

UT-LN-102: Air Quality Analysis

UT-LN-104: Burrowing Owl Habitat

*UT-LN-128: Floodplain Management

*UT-LN-156: Pollinators and Pollinator Habitat

T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin

T&E-05: Listed Plant Species

T&E-17: San Rafael Cactus (*Pediocactus despainii*)

*T&E-22: Ute Ladies' Tresses (*spiranthes diluvialis*)

*T&E-27: Yellow-Billed Cuckoo

UTU91340

(UT1115 – 182)

T. 17 S., R. 10 E., Salt Lake

Sec. 19: SESW, SWSE.

80.00 Acres

Emery County, Utah

Price Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-127: NSO – Intermittent and Perennial Streams

UT-S-169: CSU – Cultural Resource Inventories

UT-S-218: CSU – White-tailed Prairie Dog
UT-S-305: CSU – Noxious Weed

LEASE NOTICES

UT-LN-44: Raptors
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-53: Riparian Areas
*UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formations Controls
UT-LN-102: Air Quality Analysis
UT-LN-104: Burrowing Owl Habitat
*UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
*T&E-05: Listed Plant Species
T&E-17: San Rafael Cactus (*Pediocactus Despainii*)

UTU91342

(UT1115 – 220)

U.S. Interest 50.00%

T. 2 S., R. 2 W., Uintah Special
Sec. 31: SE.

160.00 Acres

Duchesne County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
*UT-S-123: NSO Riparian, Floodplains, and Public Water Reserves
UT-S-261: TL – Raptor Buffers

LEASE NOTICES

UT-LN-37: Bald Eagle Habitat
UT-LN-40: Golden Eagle Habitat
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-53: Riparian Areas
UT-LN-67: Historical and Cultural Resource Values
UT-LN-68: Notification and 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-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin

- *T&E-05: Listed Plant Species
- *T&E-22: Ute Ladies' Tresses (*spiranthes diluvialis*)

UTU91343

(UT1115 – 222)

U.S. Interest 50.00%

T. 2 S., R. 3 W., Uintah Special
Sec. 28:

Commencing at the Southeast corner of the Southwest quarter of the Southeast quarter of Section 28, Township 2 South, Range 3 West, Uintah Special Meridian; running thence North 160 rods; thence West 78 rods; thence in a straight line in a Southeasterly direction to a point 62 rods West of the point of beginning; thence East 62 rods to the place of beginning.

70.00 Acres

Duchesne County, Utah
Vernal Field Office

STIPULATIONS

- UT-S-01: Air Quality
- UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
- UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat
- UT-S-261: TL – Raptor Buffers

LEASE NOTICES

- UT-LN-37: Bald Eagle Habitat
- UT-LN-40: Golden Eagle Habitat
- UT-LN-45: Migratory Bird
- UT-LN-49: Utah Sensitive Species
- UT-LN-51: Special Status Plants: Not Federally Listed
- UT-LN-53: Riparian Areas
- UT-LN-67: Historical and Cultural Resource Values
- UT-LN-68: Notification and 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-156: Pollinators and Pollinator Habitat
- T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
- *T&E-05: Listed Plant Species
- *T&E-22: Ute Ladies' Tresses (*spiranthes diluvialis*)
- *T&E-27: Yellow-Billed Cuckoo
- *T&E-31: Western Yellow-Billed Cuckoo

UTU91932

(UT1116 – 012)

T. 10 S., R. 15 E., SLM

Sec. 11: N2.
320.00 Acres
Duchesne County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes Greater Than 40%
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat
UT-S-261: TL – Raptor Buffers

LEASE NOTICES

UT-LN-40: Golden Eagle Habitat
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-67: Historical and Cultural Resource Values
UT-LN-68: Notification and 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
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
*T&E-05: Listed Plant Species
T&E-22: Ute Ladies' Tresses (*spiranthes diluvialis*)

UTU91933

(UT1116 – 013)
T. 10 S., R. 15 E., SLM
Sec. 3: Lots 1-4, S2NW, SW;
Secs. 4 and 9: All;
Sec. 10: W2;
Sec. 15: W2;
Sec. 22: W2NW.

1,255.14 Acres
Duchesne County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes Greater Than 40%
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat
UT-S-261: TL – Raptor Buffers

LEASE NOTICES

UT-LN-40: Golden Eagle Habitat
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-67: Historical and Cultural Resource Values
UT-LN-68: Notification and 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
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
*T&E-05: Listed Plant Species
T&E-22: Ute Ladies' Tresses (*spiranthes diluvialis*)

UTU91936

(UT1116 – 016)
T. 10 S., R. 15 E., SLM
Sec. 31: Lot 7, NESE.
75.79 Acres
Duchesne County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes Greater Than 40%
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
*UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-159: CSU – Visual Resources - VRM II
UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat
UT-S-261: TL – Raptor Buffers

LEASE NOTICES

UT-LN-40: Golden Eagle Habitat
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-67: Historical and Cultural Resource Values
UT-LN-68: Notification and 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-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
*T&E-05: Listed Plant Species

UTU91937

(UT1116 – 032)
T. 11 S., R. 17 E., SLM
Sec. 10: E2.
320.00 Acres
Duchesne County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes Greater Than 40%
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
*UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-195: NSO – Greater Sage-Grouse Leaks
UT-S-205: TL – Greater Sage-Grouse Brood Rearing and Nesting
UT-S-206: CSU – Greater Sage-Grouse (Noise Reduction)
UT-S-207: CSU – Greater Sage-Grouse (Structures)
UT-S-261: TL – Raptor Buffers
UT-S-317: Unit Joinder – Deseret Unit UTU89823X

LEASE NOTICES

UT-LN-40: Golden Eagle Habitat
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-53: Riparian Areas
UT-LN-67: Historical and Cultural Resource Values
UT-LN-68: Notification and 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-90: Graham's Beardtongue (*penstemon grahamii*)
UT-LN-96: Air Quality Mitigation Measures
*UT-LN-99: Regional Ozone Formation Controls
*UT-LN-102: Air Quality Analysis
UT-LN-131: Greater Sage-Grouse Net Conservation Gain
UT-LN-132: Greater Sage-Grouse Required Design Features
UT-LN-133: Greater Sage-Grouse Buffer
UT-LN-134: Graham's Beardtounge (*Penstemon grahamii*) & White River Beardtongue (*P. scariosus* var. *albifluvis*) Conservation Area
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-20: Clay Reed Mustard (*schoenocrambe argillacea*)

UTU91938

(UT1116 – 038)
T. 10 S., R. 18 E., SLM
Sec. 13: Lot 4.

40.04 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes Greater Than 40%
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplain, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-159: CSU – Visual Resource - VRM II
UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat
UT-S-261: TL – Raptor Buffers
UT-S-278: CSU – Bald Eagle Winter Roost

LEASE NOTICES

UT-LN-37: Bald Eagle Habitat
UT-LN-40: Golden Eagle Habitat
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-67: Historical and Cultural Resource Values
UT-LN-68: Notification and 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-107: Bald Eagle
UT-LN-113: Western Yellow-Billed Cuckoo
UT-LN-128: Federal Flood Risk Management Standard
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-12: Pariette Cactus (*sclerocactus brevispinus*) and Uinta Basin Hookless Cactus
[*(sclerocactus glaucus) brevispinus and wetlandicus*]
T&E-22: Ute Ladies' Tresses (*spiranthes diluvialis*)
*T&E-27: Yellow-Billed Cuckoo

UTU91945

(UT1116 – 093)
T. 5 S., R. 22 E., SLM
Sec. 29: SENE, NWNW, SWSW, SWSE.
160.00 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes Greater Than 40%
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
*UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-261: TL – Raptor Buffers

LEASE NOTICES

UT-LN-40: Golden Eagle Habitat
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-53: Riparian Areas
UT-LN-67: Historical and Cultural Resource Values
UT-LN-68: Notification and 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-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
*T&E-05: Listed Plant Species

UTU91946

(UT1116 – 094)

T. 6 S., R. 22 E., SLM

Sec. 12: SWNE, NWSE.

80.00 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-96: NSO – Fragile Soils/Slopes Greater Than 40%

UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)

UT-S-123: NSO – Riparian, Floodplains and Public Water Reserves

UT-S-157: NSO/CSU/TL – Visual Resources

UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat

UT-S-261: TL – Raptor Buffers

UT-S-278: CSU – Bald Eagle Winter Roost

LEASE NOTICES

UT-LN-37: Bald Eagle Habitat

UT-LN-40: Golden Eagle Habitat

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-51: Special Status Plants: Not Federally Listed

UT-LN-53: Riparian Areas

UT-LN-67: Historical and Cultural Resource Values

UT-LN-68: Notification and 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-107: Bald Eagle

UT-LN-113: Western Yellow-Billed Cuckoo

UT-LN-128: Federal Flood Risk Management Standard

*UT-LN-156: Pollinators and Pollinator Habitat

T&E-02: Black-Footed Ferret

T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin

*T&E-05: Listed Plant Species

T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

*T&E-27: Yellow-Billed Cuckoo

UTU91948

(UT1116 – 105)

T. 8 S., R. 23 E., SLM

Sec. 26: NENE.

40.00 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-123: NSO – Riparian, Floodplains and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-261: TL – Raptor Buffers

LEASE NOTICES

UT-LN-40: Golden Eagle Habitat
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-67: Historical and Cultural Resource Values
UT-LN-68: Notification and 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
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-02: Black-Footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
*T&E-05: Listed Plant Species
T&E-12: Pariette Cactus (*sclerocactus brevispinus*) and Uinta Basin Hookless Cactus
[*sclerocactus glaucus (brevispinus and wetlandicus)*]

UTU91949

(UT1116 – 121)
T. 9 S., R. 25 E., SLM
Sec. 35: S2.
320.00 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes Greater Than 40%
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
*UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-230: TL – Crucial Deer and Elk Winter Range

UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat

UT-S-261: TL – Raptor Buffers

LEASE NOTICES

UT-LN-40: Golden Eagle Habitat

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-51: Special Status Plants: Not Federally Listed

*UT-LN-53: Riparian Areas

UT-LN-67: Historical and Cultural Resource Values

UT-LN-68: Notification and 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-90: Graham's Beardtongue (*penstemon grahamii*)

UT-LN-96: Air Quality Mitigation Measures

*UT-LN-99: Regional Ozone Formation Controls

*UT-LN-102: Air Quality AnalysisUT-LN-134: Graham's Beardtounge (*Penstemon grahamii*) & White River Beardtongue (*P. scariosus* var. *albifluvis*) Conservation Area

*UT-LN-156: Pollinators and Pollinator Habitat

*UT-LN-134: Graham's Beardtonug (*Penstemon grahamii*) & White River beardtongue (*P. scariosus* var. *albifluvis*) conservation area

T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin

*T&E-05: Listed Plant Species

*T&E-25: Mexican Spotted Owl

UTU91950

(UT1116 – 122)

T. 10 S., R. 25 E., SLM

Sec. 1: All;

Sec. 10: NWNWSE, S2N2SE, S2SE;

Sec. 11: W2;

Sec. 14: W2;

Sec. 15: All;

Sec. 21: E2SW, SE;

Sec. 28: E2.

2,257.65 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-96: NSO – Fragile Soils/Slopes Greater Than 40%

UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)

UT-S-123: NSO – Riparian, Floodplains and Public Water Reserves

UT-S-157: NSO/CSU/TL – Visual Resources

UT-S-230: TL – Crucial Deer and Elk Winter Range

UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat

UT-S-261: TL – Raptor Buffers

LEASE NOTICES

UT-LN-40: Golden Eagle Habitat

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

*UT-LN-53: Riparian Areas

UT-LN-51: Special Status Plants: Not Federally Listed

UT-LN-67: Historical and Cultural Resource Values

UT-LN-68: Notification and 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-90: Graham's Beardtongue (*penstemon grahamii*)

UT-LN-96: Air Quality Mitigation Measures

*UT-LN-99: Regional Ozone Formation Controls

*UT-LN-102: Air Quality Analysis

UT-LN-134: Graham's Beardtounge (*Penstemon grahamii*) & White River Beardtongue (*P. scariosus* var. *albifluvis*) Conservation Area

*UT-LN-156: Pollinators and Pollinator Habitat

T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin

*T&E-05: Listed Plant Species

UTU91952

(UT1116 – 151)

T. 11 S., R. 15 E., SLM

Sec. 9: SESE.

40.00 Acres

Duchesne County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-96: NSO – Fragile Soils/Slopes Greater Than 40%

UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)

*UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-157: NSO/CSU/TL – Visual Resources

UT-S-261: TL – Raptor Buffers

UT-S-317: Unit Joinder – Gate Canyon II Unit UTU90523X

LEASE NOTICES

UT-LN-40: Golden Eagle Habitat

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-51: Special Status Plants: Not Federally Listed

*UT-LN-53: Riparian Areas

UT-LN-67: Historical and Cultural Resource Values
UT-LN-68: Notification and Consultation Regarding Cultural Resources
UT-LN-69: High Potential for Cultural Resources
UT-LN-70: High Potential for Cultural Resource Occurrence
UT-LN-96: Air Quality Mitigation Measures
*UT-LN-99: Regional Ozone Formation Controls
*UT-LN-102: Air Quality Analysis
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
*T&E-05: Listed Plant Species

UTU91953

(UT1116 – 152)
T. 12 S., R. 21 E., SLM
Sec. 8: NENE, SWNW.
80.00 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes Greater Than 40%
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
*UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-195: NSO – Greater Sage-Grouse Leks
UT-S-205: TL – Greater Sage-Grouse Brood Rearing and Nesting
UT-S-206: CSU – Greater Sage-Grouse (Noise Reduction)
UT-S-207: CSU – Greater Sage-Grouse (Structures)
UT-S-317: Unit Joinder – Flat Stone Unit UTU90379X

LEASE NOTICES

UT-LN-40: Golden Eagle Habitat
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-50: Habitat Restoration
UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-53: Riparian Areas
UT-LN-67: Historical and Cultural Resource Values
UT-LN-68: Notification and 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-90: Graham's Beardtongue (*penstemon grahamii*)
UT-LN-96: Air Quality Mitigation Measures
*UT-LN-99: Regional Ozone Formation Controls
*UT-LN-102: Air Quality Analysis

UT-LN-131: Greater Sage-Grouse Net Conservation Gain
UT-LN-132: Greater Sage-Grouse Required Design Features
UT-LN-133: Greater Sage-Grouse Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
*T&E-05: Listed Plant Species
T&E-20: Clay Reed – Mustard (*Schoenocrambe Argillacea*)
T&E-21: Shrubby Reed – Mustard (*Schoenocrambe Suffrutescens*)

UTU92311

(UT0517 – 001)
T. 22 S., R. 1 W., Salt Lake
Sec. 1: SESW, SE.
200.00 Acres
Sevier County, Utah
Richfield Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-102: CSU – Fragile Soils/Slopes 30 Percent or Greater
*UT-S-111: NSO – Wetland/Hydric Soils
*UT-S-121: NSO – Riparian and Wetland Areas
UT-S-233: TL – Crucial Mule Deer and Elk Winter Habitat

LEASE NOTICES

UT-LN-40: Golden Eagle Habitat
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-52: Noxious Weeds
*UT-LN-53: Riparian Areas
UT-LN-65: Old Spanish Trail
*UT-LN-72: High Potential Paleontological Resources
*UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
*UT-LN-101: Air Quality
UT-LN-102: Air Quality Analysis
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-05: Listed Plant Species
T&E-06: Mexican Spotted Owl
T&E-11: California Condor

UTU92312

(UT0517 – 002)
T. 22 S., R. 1 W., Salt Lake
Sec. 6: Lots 8-13, 15, 16.

346.74 Acres
Sevier County, Utah
Richfield Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-78: NSO – Cemeteries, Culinary Water Sources, Landfill (Existing and Closed), Lands Managed under R&PP Act Leases, Sites Listed on the National Register of Historic Places, Incorporated Municipalities, Developed Recreation Sites, and BLM Administered Sites.

UT-S-102: CSU – Fragile Soils/Slopes 30 Percent or Greater

*UT-S-111: NSO – Wetland/Hydric Soils

*UT-S-121: NSO – Riparian and Wetland Areas

UT-S-233: TL – Crucial Mule Deer and Elk Winter Habitat

*UT-S-314: CSU/TL – Ute Ladies’-Tresses

LEASE NOTICES

UT-LN-40: Golden Eagle Habitat

UT-LN-45: Migratory Bird

UT-LN-49: Utah Sensitive Species

*UT-LN-51: Special Status Plants: Not Federally Listed

UT-LN-52: Noxious Weeds

*UT-LN-53: Riparian Areas

UT-LN-56: Drinking Water Source Protection Zone

UT-LN-58: Drinking Water Protection Zone

UT-LN-65: Old Spanish Trail

*UT-LN-72: High Potential Paleontological Resources

*UT-LN-96: Air Quality Mitigation Measures

UT-LN-99: Regional Ozone Formation Controls

*UT-LN-101: Air Quality

UT-LN-102: Air Quality Analysis

*UT-LN-156: Pollinators and Pollinator Habitat

*T&E-05: Listed Plant Species

T&E-06: Mexican Spotted Owl

*T&E-22: Ute Ladies’-Tresses (*spiranthes diluvialis*)

UTU92313

(UT0517 – 003)

T. 22 S., R. 1 W., Salt Lake
Sec. 10: SWSW, SE.

200.00 Acres

Sevier County, Utah
Richfield Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-102: CSU – Fragile Soils/Slopes 30 Percent or Greater

*UT-S-111: NSO – Wetland/Hydric Soils
*UT-S-121: NSO – Riparian and Wetland Areas
*UT-S-221: CSU/TL – Utah Prairie Dog
UT-S-233: TL – Crucial Mule Deer and Elk Winter Habitat
*UT-S-314: CSU/TL – Ute Ladies’-Tresses

LEASE NOTICES

UT-LN-40: Golden Eagle Habitat
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-52: Noxious Weeds
*UT-LN-53: Riparian Areas
UT-LN-65: Old Spanish Trail
*UT-LN-72: High Potential Paleontological Resources
*UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
*UT-LN-101: Air Quality
UT-LN-102: Air Quality Analysis
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-05: Listed Plant Species
T&E-06: Mexican Spotted Owl
*T&E-09: Utah Prairie Dog
T&E-11: California Condor
T&E-14: Last Chance Townsendia (*Townsendia Aprica*)
*T&E-22: Ute Ladies’-Tresses (*spiranthes diluvialis*)
*T&E-27: Yellow-Billed Cuckoo

UTU92314

(UT0517 – 004)
T. 23 S., R. 1 W., Salt Lake
Sec. 1: SW, W2SE;
Secs. 11 and 12: All.
1,482.76 Acres
Sevier County, Utah
Richfield Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-102: CSU – Fragile Soils/Slopes 30 Percent or Greater
*UT-S-111: NSO – Wetland/Hydric Soils
UT-S-121: NSO – Riparian and Wetland Areas
*UT-S-221: CSU/TL – Utah Prairie Dog
UT-S-233: TL – Crucial Mule Deer and Elk Winter Habitat
*UT-S-314: CSU/TL – Ute Ladies’-Tresses

LEASE NOTICES

UT-LN-40: Golden Eagle Habitat
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-52: Noxious Weeds
*UT-LN-53: Riparian Areas
UT-LN-57: Public Water Reserve
UT-LN-65: Old Spanish Trail
*UT-LN-72: High Potential Paleontological Resources
*UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
*UT-LN-101: Air Quality
UT-LN-102: Air Quality Analysis
UT-LN-107: Bald Eagle
UT-LN-128: Federal Flood Risk Management Standard
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-05: Listed Plant Species
T&E-06: Mexican Spotted Owl
*T&E-09: Utah Prairie Dog
T&E-11: California Condor
*T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)
*T&E-27: Yellow-Billed Cuckoo

UTU92315

(UT0517 – 005)

T. 23 S., R. 1 W., Salt Lake

Sec. 13: All;

Sec. 14: N2, SE;

Sec. 23: E2;

Sec. 24: All.

2,032.52 Acres

Sevier County, Utah

Richfield Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-102: CSU – Fragile Soils/Slopes 30 Percent or Greater

*UT-S-111: NSO – Wetland/Hydric Soils

UT-S-121: NSO – Riparian and Wetland Areas

*UT-S-221: CSU/TL – Utah Prairie Dog

UT-S-233: TL – Crucial Mule Deer and Elk Winter Habitat

*UT-S-314: CSU/TL – Ute Ladies'-Tresses

LEASE NOTICES

UT-LN-40: Golden Eagle Habitat

UT-LN-45: Migratory Bird

UT-LN-49: Utah Sensitive Species

*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-52: Noxious Weeds
*UT-LN-53: Riparian Areas
UT-LN-57: Public Water Reserve
UT-LN-65: Old Spanish Trail
*UT-LN-72: High Potential Paleontological Resources
*UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
*UT-LN-101: Air Quality
UT-LN-102: Air Quality Analysis
UT-LN-107: Bald Eagle
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-05: Listed Plant Species
T&E-06: Mexican Spotted Owl
*T&E-09: Utah Prairie Dog
T&E-11: California Condor
*T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)
*T&E-27: Yellow-Billed Cuckoo

UTU92316

(UT0517 – 006)

T. 23 S., R. 1 W., Salt Lake

Sec. 22: All.

677.60 Acres

Sevier County, Utah

Richfield Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-102: CSU – Fragile Soils/Slopes 30 Percent or Greater
*UT-S-111: NSO – Wetland/Hydric Soils
*UT-S-121: NSO – Riparian and Wetland Areas
*UT-S-221: CSU/TL – Utah Prairie Dog
UT-S-233: TL – Crucial Mule Deer and Elk Winter Habitat

LEASE NOTICES

UT-LN-40: Golden Eagle Habitat
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-52: Noxious Weeds
*UT-LN-53: Riparian Areas
UT-LN-56: Drinking Water Source Protection Zone
UT-LN-58: Drinking Water Protection Zone
UT-LN-65: Old Spanish Trail
*UT-LN-72: High Potential Paleontological Resources
*UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls

*UT-LN-101: Air Quality
UT-LN-102: Air Quality Analysis
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-05: Listed Plant Species
T&E-06: Mexican Spotted Owl
*T&E-09: Utah Prairie Dog
T&E-11: California Condor

UTU92328

(UT0517 – 026)
T. 20 S., R. 1 E., Salt Lake
 Sec. 1: Lots 1-4, S2N2, N2SW, SWSW, SE;
 Sec. 11: S2NE, SE;
 Sec. 12: E2, S2NW.
1,239.20 Acres
Sanpete County, Utah
Richfield Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-102: CSU – Fragile Soils/Slopes 30 Percent or Greater
*UT-S-111: NSO – Wetland/Hydric Soils
*UT-S-121: NSO – Riparian and Wetland Areas
*UT-S-221: CSU/TL – Utah Prairie Dog
UT-S-233: TL – Crucial Mule Deer and Elk Winter Habitat

LEASE NOTICES

UT-LN-40: Golden Eagle Habitat
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-52: Noxious Weeds
*UT-LN-53: Riparian Areas
*UT-LN-72: High Potential Paleontological Resources
*UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
*UT-LN-101: Air Quality
UT-LN-102: Air Quality Analysis
UT-LN-107: Bald Eagle
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-05: Listed Plant Species
T&E-06: Mexican Spotted Owl
*T&E-09: Utah Prairie Dog
T&E-14: Last Chance Townsendia (*Townsendia Aprica*)

UTU92330

(UT0517 – 029)

T. 19 S., R. 2 E., Salt Lake

Sec. 19: Lots 3, 4, 7, SESW;

Sec. 30: Lots 1-4, 6, 7, E2W2, W2SE, SESE;

Sec. 31: Lots 1-4, NE, E2W2, N2SE, SWSE, W2SESE.

1,300.17 Acres

Sanpete County, Utah

Richfield Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-102: CSU – Fragile Soils/Slopes 30 Percent or Greater

*UT-S-111: NSO – Wetland/Hydric Soils

*UT-S-121: NSO – Riparian and Wetland Areas

*UT-S-221: CSU/TL – Utah Prairie Dog

UT-S-233: TL – Crucial Mule Deer and Elk Winter Habitat

*UT-S-314: CSU/TL – Ute Ladies’-Tresses

LEASE NOTICES

UT-LN-40: Golden Eagle Habitat

UT-LN-45: Migratory Bird

UT-LN-49: Utah Sensitive Species

*UT-LN-51: Special Status Plants: Not Federally Listed

UT-LN-52: Noxious Weeds

*UT-LN-53: Riparian Areas

*UT-LN-96: Air Quality Mitigation Measures

UT-LN-99: Regional Ozone Formation Controls

*UT-LN-101: Air Quality

UT-LN-102: Air Quality Analysis

UT-LN-107: Bald Eagle

*UT-LN-156: Pollinators and Pollinator Habitat

T&E-05: Listed Plant Species

T&E-06: Mexican Spotted Owl

*T&E-09: Utah Prairie Dog

T&E-14: Last Chance Townsendia (*Townsendia Aprica*)

*T&E-22: Ute Ladies’-Tresses (*spiranthes diluvialis*)

*T&E-27: Yellow-Billed Cuckoo

UTU92487

(UT0817 – 003)

T. 13 S., R. 1 W., SLM

Sec. 19: All;

Sec. 20: W2;

Sec. 29: W2;

Sec. 30: All;

Sec. 31: Lots 5, 6, NE, NESE.
2,169.83 Acres
Juab County, Utah
Fillmore Field Office

STIPULATIONS

*UT-S-01: Air Quality
UT-S-347: NSO – Greater Sage-Grouse Priority Habitat Management Areas
UT-S-348: NSO/CSU – Greater Sage-Grouse Disturbance Cap
UT-S-349: NSO/CSU – Greater Sage-Grouse Density Limitation
UT-S-350: CSU/TL – Greater Sage-Grouse Breeding Season Noise Limitations
UT-S-352: CSU – Greater Sage-Grouse Tall Structures
UT-S-353: TL – Greater Sage-Grouse Breeding, Nesting and Early Brood Rearing
UT-S-354: TL – Greater Sage-Grouse Brood-Rearing
UT-S-355: TL – Greater Sage-Grouse Winter Habitat
UT-S-356: CSU – Greater Sage-Grouse Indirect Impacts from Noise
UT-S-357: CSU – Greater Sage-Grouse Indirect Impacts from Tall Structures

LEASE NOTICES

UT-LN-34: Bald Eagle Winter Roost Sites
UT-LN-36: Bald Eagle Habitat
UT-LN-37: Bald Eagle Habitat
UT-LN-38: Ferruginous Hawk Nest Site
UT-LN-39: Golden Eagle Nest Sites
UT-LN-40: Golden Eagle Habitat
UT-LN-42: Burrowing Owl Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-52: Noxious Weed
*UT-LN-53: Riparian Areas
*UT-LN-54: Floodplains
UT-LN-60: Steep Slopes
*UT-LN-72: High Potential Paleontological Resources
UT-LN-96: Air Quality Mitigation Measures
*UT-LN-99: Regional Ozone Mitigation Measures
UT-LN-101: Air Quality
UT-LN-102: Air Quality Analysis
UT-LN-107: Bald Eagle
*UT-LN-128: Floodplain Management
UT-LN-129: Greater Sage-Grouse – Disturbance Cap
UT-LN-130: Greater Sage-Grouse – Density Limitations
UT-LN-131: Greater Sage-Grouse – Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
UT-LN-133: Greater Sage-Grouse – Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-05: Listed Plant Species

*T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU92670

(UT1217 – 036)

T. 10 S., R. 16 E., SLM

Sec. 27: N2;

Sec. 28: N2.

640.00 Acres

Duchesne County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%

UT-S-99: CSU – Fragile Soils/Slopes

UT-S-100: CSU – Fragile Soil/Slopes (21%-40%)

UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat

UT-S-261: TL – Raptor Buffers

LEASE NOTICES

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

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

*UT-LN-51: Special Status Plants: Not Federally Listed

*UT-LN-53: Riparian Areas

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-115: Light and Sound

UT-LN-128: Floodplain Management

*UT-LN-156: Pollinators and Pollinator Habitat

T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin

*T&E-05: Listed Plant Species

UTU92674

(UT1217 – 040)

T. 9 S., R. 17 E., SLM

Sec. 35: All.

640.00 Acres

Duchesne County, Utah (183.24 Acres)

Uintah County, Utah (456.76 Acres)

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-261: TL – Raptor Buffers

LEASE NOTICES

UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-53: Riparian Areas
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-115: Light and Sound
UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
*T&E-05: Listed Plant Species

UTU92676

(UT1217 – 042)
T. 9 S., R. 18 E., SLM
Sec. 33: S2.
320.00 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-261: TL – Raptor Buffers

LEASE NOTICES

UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-53: Riparian Areas
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-115: Light and Sound
UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-12: Pariette Cactus (*sclerocactus brevispinus*) and Uinta Basin Hookless Cactus
[*sclerocactus glaucus (brevispinus and wetlandicus)*]

UTU92677

(UT1217 – 044)

T. 9 S., R. 19 E., SLM

Sec. 14: Lots 1-3, NW, N2SW;

Sec. 15: All.

EXCEPTING those portions of lots 1, 2, and 3 of section 14 now falling within the bed of the Green River (erosion), more particularly described as follows:

COMMENCING at the meander corner of sections 11 and 14, on the right bank of the Green River, marked with an iron post, 1 inch diameter, with brass cap marked as described in the official record of the 1910 survey and the 1991 resurvey;

THENCE, South 9° 17' 10" West, a distance of 4.940 chains, to the **POINT OF BEGINNING**, not monumented; **THENCE**, South 2° 36' 52" West, a distance of 3.227 chains; **THENCE**, South 0° 03' 32" West, a distance of 9.197 chains; **THENCE**, South 8° 03' 40" West, a distance of 9.998 chains; **THENCE**, South 16° 56' 59" East, a distance of 10.993 chains; **THENCE**, South 17° 57' 01" East, a distance of 4.997 chains; **THENCE**, South 8° 33' 40" West, a distance of 7.998 chains; **THENCE**, South 17° 12' 34" East, a distance of 6.220 chains; **THENCE**, North 89° 51' 10" West, a distance of 7.859 chains; **THENCE**, North 22° 27' 50" West, a distance of 4.215 chains; **THENCE**, North 33° 07' 48" West, a distance of 1.992 chains; **THENCE**, North 20° 12' 04" West, a distance of 3.557 chains; **THENCE**, North 0° 21' 36" West, a distance of 8.395 chains; **THENCE**, North 16° 55' 02" East, a distance of 2.203 chains; **THENCE**, North 8° 51' 37" East, a distance of 9.924 chains; **THENCE**, North 0° 25' 55" West, a distance of 5.830 chains; **THENCE**, North 15° 52' 43" East, a distance of 7.141 chains; **THENCE**, North 22° 24' 56" East, a distance of 10.289 chains to the **POINT OF BEGINNING**.

BASIS OF BEARINGS: Section line between sections 11 and 14, bearing EAST, as shown on the official survey plat of this township approved June 14, 1993, referenced to the true meridian.

The area of erosion described by metes-and-bounds in this description contains 32.75 acres and is used to reduce acreage for Federal interest mineral leasing purposes.

The area described by legal subdivisions contains 952.05 acres, according to the official plat of the survey of the said land, on file with the BLM.

The total area described contains 919.30 acres.

919.30 Acres
Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-11: NSO – Pariette Wetlands ACEC,

*UT-S-22: NSO/CSU/TL– Lower Green River ACEC

UT-S-53: NSO – Developed Recreation Sites

UT-S-99: CSU – Fragile Soils/Slopes

UT-S-117: NSO – River Corridors: Lower Green River

*UT-S-119: NSO – Lower Green River Corridor
UT-S-123: NSO – Riparian, Floodplains, and
Public Water Reserves

UT-S-159: CSU – Visual Resources – VRM II

UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat

UT-S-261: TL – Raptor Buffers

UT-S-278: CSU – Bald Eagle Winter Roost

*UT-S-326: NSO – Lower Green River Expansion

LEASE NOTICES

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

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-51: Special Status Plants: Not Federally Listed

*UT-LN-53: Riparian Areas

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-113: Western Yellow-Billed Cuckoo

UT-LN-115: Light and Sound

UT-LN-128: Floodplain Management

UT-LN-155: Colorado River Wildlife Management Area Conservation Easement

*UT-LN-156: Pollinators and Pollinator Habitat

T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin

T&E-05: Listed Plant Species

*T&E-07: Southwestern Willow Flycatcher

T&E-12: Pariette Cactus (*sclerocactus brevispinus*) and Uinta Basin Hookless Cactus
[*sclerocactus glaucus (brevispinus and wetlandicus)*]

T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

*T&E-27: Western Yellow-billed Cuckoo

UTU92679

(UT1217 – 046)

T. 6 S., R. 20 E., SLM

Sec. 30: Lots 1-4, E2NW, E2SW;

Sec. 31: All excluding U16133.

859.60 Acres

Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-261: TL – Raptor Buffers

LEASE NOTICES

UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Species: Not Federally Listed
*UT-LN-53: Riparian Areas
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-89: Horseshoe Milkvetch (*astragalus equisolensis*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-113: Western Yellow-Billed Cuckoo
UT-LN-115: Light and Sound
UT-LN-128: Floodplain Management
UT-LN-131: Greater Sage-Grouse – Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)
*T&E-27: Yellow-Billed Cuckoo

UTU92680

(UT1217 – 047)
T. 6 S., R. 20 E., SLM
Sec. 33: NE
Secs. 34 and 35: All.
1,440.00 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-261: TL – Raptor Buffers

LEASE NOTICES

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

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-51: Special Status Species: Not Federally Listed

*UT-LN-53: Riparian Areas

UT-LN-68: Notification & Consultation Regarding Cultural Resources

UT-LN-72: High Potential Paleontological Resources

UT-LN-89: Horseshoe Milkvetch (*astragalus equisolensis*)

UT-LN-96: Air Quality Mitigation Measures

UT-LN-99: Regional Ozone Formation Controls

UT-LN-102: Air Quality Analysis

UT-LN-113: Western Yellow-Billed Cuckoo

UT-LN-115: Light and Sound

UT-LN-128: Floodplain Management

UT-LN-131: Greater Sage-Grouse – Net Conservation Gain

UT-LN-132: Greater Sage-Grouse – Required Design Features

UT-LN-133: Greater Sage-Grouse – Buffer

*UT-LN-156: Pollinators and Pollinator Habitat

T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin

T&E-05: Listed Plant Species

T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU92682

(UT1217 – 052)

T. 6 S., R. 21 E., SLM

Secs. 3, 10 and 15: All.

1,794.16 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-99: CSU – Fragile Soils/Slopes

UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-205: TL – Greater Sage-Grouse Brood Rearing and Nesting

UT-S-207: CSU – Greater Sage-Grouse (Structures)

UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat

UT-S-261: TL – Raptor Buffers

LEASE NOTICES

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

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-51: Special Status Species: Not Federally Listed

*UT-LN-53: Riparian Areas
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-72: High Potential Paleontological Resources
UT-LN-89: Horseshoe Milkvetch (*astragalus equisolensis*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-113: Western Yellow-Billed Cuckoo
UT-LN-114: Viewshed, Light and Sound (Green River)
UT-LN-115: Light and Sound
UT-LN-128: Floodplain Management
UT-LN-131: Greater Sage-Grouse – Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
UT-LN-133: Greater Sage-Grouse – Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
*T&E-07: Southwestern Willow Flycatcher
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)
*T&E-27: Yellow-Billed Cuckoo

UTU92683

(UT1217 – 053)
T. 6 S., R. 21 E., SLM
Secs. 6 and 7: All.
1,155.38 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-261: TL – Raptor Buffers

LEASE NOTICES

UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Species: Not Federally Listed
*UT-LN-53: Riparian Areas
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-72: High Potential Paleontological Resources
UT-LN-89: Horseshoe Milkvetch (*astragalus equisolensis*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis

UT-LN-113: Western Yellow-Billed Cuckoo
UT-LN-115: Light and Sound
UT-LN-128: Floodplain Management
UT-LN-131: Greater Sage-Grouse – Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
UT-LN-133: Greater Sage-Grouse – Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
*T&E-05: Listed Plant Species

UTU92684

(UT1217 – 054)

T. 6 S., R. 21 E., SLM

Sec. 11: All;

Sec. 12: Lots 1, 2, 7, 8, S2;

Sec. 14: Lots 7, 8, N2NW, SWNW, W2SW, and the unsurveyed accreted lands in front of lots 7 and 8, more particularly described as follows:

COMMENCING at the **POINT OF BEGINNING**, being the witness meander corner of sections 14 and 23, on the right bank of the Green River, marked with an iron post, 2 1/2 inches diameter, with brass cap marked as described in the official record of the 1953-60 resurvey; **THENCE**, South 89° 50' 00" West, on the line between sections 14 and 23 a distance of 4.940 chains to the restored 1882 meander corner, not monumented; **THENCE**, North 10° 57' 07" West, a distance of 20.380 chains; **THENCE**, North 16° 42' 33" West, a distance of 20.869 chains; **THENCE**, North 73° 10' 57" East, a distance of 2.101 chains; **THENCE**, South 22° 02' 20" East, a distance of 14.702 chains; **THENCE**, South 30° 02' 14" East, a distance of 9.402 chains; **THENCE**, South 7° 47' 47" East, a distance of 18.998 chains, to the **POINT OF BEGINNING**.

BASIS OF BEARINGS: Section line between sections 14 and 23, bearing South 89° 50' West, as shown on the official survey plat of this township approved May 1, 1964, referenced to the true meridian.

The area described by metes-and-bounds in this description are for Federal interest mineral leasing purposes and contains 18.08 acres.

The area described by legal subdivisions contains 1401.43 acres, according to the official plats of the surveys of the said land, on file with the BLM.

The total area described contains 1419.51 acres.

1,419.51 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-99: CSU – Fragile Soils/Slopes

UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-205: TL – Greater Sage-Grouse Brood Rearing and Nesting
UT-S-207: CSU – Greater Sage-Grouse (Structures)
UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat
UT-S-261: TL – Raptor Buffers

LEASE NOTICES

UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Species: Not Federally Listed
*UT-LN-53: Riparian Areas
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-85: Tar Sands Area
UT-LN-89: Horseshoe Milkvetch (*astragalus equisolensis*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-113: Western Yellow-Billed Cuckoo
UT-LN-114: Viewshed, Light and Sound (Green River)
UT-LN-115: Light and Sound
UT-LN-128: Floodplain Management
UT-LN-131: Greater Sage-Grouse – Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
UT-LN-133: Greater Sage-Grouse – Buffer
UT-LN-155: Colorado River Wildlife Management Area Conservation Easement
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-02: Black-Footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)
*T&E-27: Yellow-Billed Cuckoo

UTU92685

(UT1217 – 055)

T. 7 S., R. 21 E., SLM
Sec. 14: NWSW;
Sec. 15: W2NE, SENE;
Sec. 20: SE.

320.00 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-99: CSU – Fragile Soils/Slopes
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat
UT-S-261: TL – Raptor Buffers
UT-S-278: CSU – Bald Eagle Winter Roost

LEASE NOTICES

UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-53: Riparian Areas
UT-LN-51: Special Status Species: Not Federally Listed
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-89: Horseshoe Milkvetch (*astragalus equisolensis*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-113: Western Yellow-Billed Cuckoo
UT-LN-114: Viewshed, Light and Sound (Green River)
UT-LN-115: Light and Sound
UT-LN-128: Floodplain Management
UT-LN-152: Potential Adjacent Landowner Access Restrictions
UT-LN-156: Ouray National Wildlife Refuge – Johnson Bottom
T&E-02: Black-Footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-12: Pariette Cactus (*sclerocactus brevispinus*) and Uinta Basin Hookless Cactus
[*sclerocactus glaucus (brevispinus and wetlandicus)*]
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)
*T&E-27: Western Yellow-billed Cuckoo

UTU92686

(UT1217 – 056)
T. 12 S., R. 21 E., SLM
Sec. 28: All.
640.00 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soil/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-175: CSU/TL – Cultural Resources – Upper Willow Creek Area of the Book Cliffs

UT-S-230: TL – Crucial Deer and Elk Winter Range

UT-S-231: CSU – Crucial Deer Winter Range

UT-S-261: TL – Raptor Buffers

LEASE NOTICES

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

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

*UT-LN-50: Habitat Restoration

UT-LN-51: Special Status Species: Not Federally Listed

*UT-LN-53: Riparian Areas

UT-LN-68: Notification & Consultation Regarding Cultural Resources

UT-LN-72: High Potential Paleontological Resources

UT-LN-83: Site Right-of-Way

*UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)

UT-LN-96: Air Quality Mitigation Measures

UT-LN-99: Regional Ozone Formation Controls

UT-LN-102: Air Quality Analysis

UT-LN-113: Western Yellow-Billed Cuckoo

UT-LN-115: Light and Sound

UT-LN-128: Floodplain Management

UT-LN-131: Greater Sage-Grouse – Net Conservation Gain

UT-LN-132: Greater Sage-Grouse – Required Design Features

*UT-LN-133: Greater Sage-Grouse - Buffer

UT-LN-154: White River Beardtongue (*penstemon scariosus* var. *albifluvis*)

*UT-LN-156: Pollinators and Pollinator Habitat

T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin

T&E-05: Listed Plant Species

T&E-20: Clay Reed-Mustard (*schoenocrambe argillacea*)

T&E-21: Shrubby Reed-Mustard (*schoenocrambe suffrutescens*)

T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

*T&E-27: Western Yellow-billed Cuckoo

UTU92695

(UT1217 – 065)

T. 6 S., R. 22 E., SLM

Sec. 12: Lots 12, 13, SESW, NESE;

Sec. 13: NE, NENW, S2NW, S2;

Sec. 14: Lots 12, 13, NESE, S2SE;

Sec. 15: Lots 12 and 13;

Secs. 23 and 24: All.

2,282.27 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat
UT-S-261: TL – Raptor Buffers
UT-S-278: CSU – Bald Eagle Winter Roost

LEASE NOTICES

UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Species: Not Federally Listed
*UT-LN-53: Riparian Areas
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-72: High Potential Paleontological Resources
UT-LN-89: Horseshoe Milkvetch (*astragalus equisolensis*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-113: Western Yellow-Billed Cuckoo
UT-LN-114: Viewshed, Light and Sound (Green River)
UT-LN-115: Light and Sound
UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-02: Black-Footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)
*T&E-27: Western Yellow-billed Cuckoo

UTU92696

(UT1217 – 066)
T. 6 S., R. 22 E., SLM
Sec. 17: SWNE, W2.
360.00 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat
UT-S-261: TL – Raptor Buffers
UT-S-278: CSU – Bald Eagle Winter Roost

LEASE NOTICES

UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Species: Not Federally Listed
*UT-LN-53: Riparian Areas
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-72: High Potential Paleontological Resources
UT-LN-89: Horseshoe Milkvetch (*astragalus equisolensis*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-113: Western Yellow-Billed Cuckoo
UT-LN-114: Viewshed, Light and Sound (Green River)
UT-LN-115: Light and Sound
UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-02: Black-Footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)
*T&E-27: Western Yellow-billed Cuckoo

UTU92697

(UT1217 – 067)
T. 7 S., R. 22 E., SLM
 Sec. 1: W2SW;
 Sec. 3: Lots 1-8, S2NE, SENW, NESW, N2SE.
563.88 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-261: TL – Raptor Buffers

LEASE NOTICES

UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Species: Not Federally Listed
*UT-LN-53: Riparian Areas
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-72: High Potential Paleontological Resources
UT-LN-89: Horseshoe Milkvetch (*astragalus equisolensis*)
UT-LN-96: Air Quality Mitigation Measures

UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-115: Light and Sound
UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-02: Black-Footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
*T&E-05: Listed Plant Species

UTU92698

(UT1217 – 068)
T. 8 S., R. 22 E., SLM
Sec. 6: Lots 1-5, S2NE, SENW.
317.92 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-261: TL – Raptor Buffers

LEASE NOTICES

UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-53: Riparian Areas
UT-LN-51: Special Status Species: Not Federally Listed
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-89: Horseshoe Milkvetch (*astragalus equisolensis*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-115: Light and Sound
UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-02: Black-Footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-12: Pariette Cactus (*sclerocactus brevispinus*) and Uinta Basin Hookless Cactus
[*sclerocactus glaucus* (*brevispinus* and *wetlandicus*)]

UTU92700

(UT1217 – 072)

T. 7 S., R. 23 E., SLM

Secs. 5 and 6: All.

Sec. 9: W2NW, NWSW.

1,861.16 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-99: CSU – Fragile Soils/Slopes

UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-261: TL – Raptor Buffers

LEASE NOTICES

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

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-51: Special Status Species: Not Federally Listed

*UT-LN-53: Riparian Areas

UT-LN-68: Notification & Consultation Regarding Cultural Resources

UT-LN-72: High Potential Paleontological Resources

UT-LN-83: Site Right-of-Way

UT-LN-89: Horseshoe Milkvetch (*astragalus equisolensis*)

UT-LN-96: Air Quality Mitigation Measures

UT-LN-99: Regional Ozone Formation Controls

UT-LN-102: Air Quality Analysis

UT-LN-115: Light and Sound

UT-LN-128: Floodplain Management

*UT-LN-156: Pollinators and Pollinator Habitat

T&E-02: Black-Footed Ferret

T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin

T&E-05: Listed Plant Species

T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU92701

(UT1217 – 074)

T. 8 S., R. 24 E., SLM

Sec. 1: Lots 1, 2, S2NE, SE.

320.00 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-96: NSO – Fragile Soils/slopes Greater than 40%

UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soil/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public water Reserves
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-261: TL – Raptor Buffers
UT-S-299: CSU/TL – Black Footed Ferret PMZ

LEASE NOTICES

UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-53: Riparian Areas
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-115: Light and Sound
UT-LN-128: Floodplain Management
UT-LN-131: Greater Sage-Grouse – Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
UT-LN-133: Greater Sage-Grouse – Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-02: Black footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
*T&E-05: Listed Plant Species

UTU92702

(UT1217 – 075)
T. 8 S., R. 24 E., SLM
 Sec. 13: S2SE;
 Sec. 24: E2;
 Sec. 25: E2.
720.00 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/slopes Greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soil/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-261: TL – Raptor Buffers
UT-S-299: CSU/TL – Black Footed Ferret PMZ

LEASE NOTICES

*UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Species: Not Federally Listed
*UT-LN-53: Riparian Areas
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-89: Horseshoe Milkvetch (*astragalus equisolensis*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-115: Light and Sound
UT-LN-128: Floodplain Management
UT-LN-131: Greater Sage-Grouse – Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse – Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-02: Black footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
*T&E-05: Listed Plant Species

UTU92703

(UT1217 – 076)

T. 8 S., R. 24 E., SLM

Sec. 15: N2SW, SESW, SE;

Sec. 23: SENE, SWSE.

360.00 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/slopes Greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soil/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-261: TL – Raptor Buffers
UT-S-299: CSU/TL – Black Footed Ferret PMZ

LEASE NOTICES

*UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed

*UT-LN-53: Riparian Areas
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-115: Light and Sound
UT-LN-128: Floodplain Management
UT-LN-131: Greater Sage-Grouse – Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse – Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-02: Black footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
*T&E-05: Listed Plant Species

UTU92704

(UT1217 – 077)

T. 9 S., R. 24 E., SLM

Sec. 4: Lots 3, 4, S2NE, S2NW, S2.

552.49 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/slopes Greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soil/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public water Reserves
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-261: TL – Raptor Buffers
UT-S-299: CSU/TL – Black Footed Ferret PMZ

LEASE NOTICES

UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Species: Not Federally Listed
*UT-LN-53: Riparian Areas
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-113: Western Yellow-Billed Cuckoo

UT-LN-115: Light and Sound
UT-LN-128: Floodplain Management
UT-LN-131: Greater Sage-Grouse – Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse – Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-02: Black footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU92708

(UT1217 – 081)

T. 7 S., R. 25 E., SLM

Sec. 3: Lots 3-6, 10-12, S2NE, S2NW, S2;

Secs. 4 and 9: All;

Sec. 10: SW.

2,395.97 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-99: CSU – Fragile Soils/Slopes

UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-218: CSU – White-Tailed Prairie Dog

UT-S-230: TL – Crucial Deer and Elk Winter Range

UT-S-231: CSU – Crucial Deer Winter Range

UT-S-261: TL – Raptor Buffers

LEASE NOTICES

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-51: Special Status Species: Not Federally Listed

*UT-LN-53: Riparian Areas

*UT-LN-56: Drinking Water Source Protection Zone

UT-LN-68: Notification & Consultation Regarding Cultural Resources

UT-LN-72: High Potential Paleontological Resources

UT-LN-83: Site Right-of-Way

UT-LN-85: Tar Sands Area

UT-LN-96: Air Quality Mitigation Measures

*UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)

UT-LN-99: Regional Ozone Formation Controls

UT-LN-102: Air Quality Analysis

UT-LN-113: Western Yellow-Billed Cuckoo

UT-LN-115: Light and Sound

UT-LN-128: Floodplain Management

UT-LN-131: Greater Sage-Grouse – Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse – Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-02: Black-Footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
*T&E-05: Listed Plant Species

UTU92709

(UT1217 – 082)

T. 7 S., R. 25 E., SLM

Sec. 5: Lots 1-12, S2NE, S2NW, SE;

Sec. 6: Lots 1, 8-12, S2NE, S2NW, SW;

Sec. 8: E2.

1,574.63 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-99: CSU – Fragile Soils/Slopes

UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-218: CSU – White-Tailed Prairie Dog

UT-S-230: TL – Crucial Deer and Elk Winter Range

UT-S-231: CSU – Crucial Deer Winter Range

UT-S-261: TL – Raptor Buffers

LEASE NOTICES

*UT-LN-25: White-Tailed and Gunnison Prairie Dog

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-51: Special Status Species: Not Federally Listed

*UT-LN-53: Riparian Areas

UT-LN-68: Notification & Consultation Regarding Cultural Resources

UT-LN-72: High Potential Paleontological Resources

UT-LN-83: Site Right-of-Way

UT-LN-85: Tar Sands Area

*UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)

UT-LN-96: Air Quality Mitigation Measures

UT-LN-99: Regional Ozone Formation Controls

UT-LN-102: Air Quality Analysis

UT-LN-115: Light and Sound

UT-LN-128: Floodplain Management

UT-LN-131: Greater Sage-Grouse – Net Conservation Gain

UT-LN-132: Greater Sage-Grouse – Required Design Features

UT-LN-133: Greater Sage-Grouse – Buffer

*UT-LN-156: Pollinators and Pollinator Habitat

*T&E-02: Black-Footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU92710

(UT1217 – 083)
T. 7 S., R. 25 E., SLM
Secs. 15, 21 and 22: All.
1,920.00 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-159: CSU – Visual Resources – VRM II
UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-231: CSU – Crucial Deer Winter Range
UT-S-261: TL – Raptor Buffers

LEASE NOTICES

UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Species: Not Federally Listed
*UT-LN-53: Riparian Areas
*UT-LN-56: Drinking Water Source Protection Zone
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-85: Tar Sands Area
*UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-115: Light and Sound
UT-LN-128: Floodplain Management
UT-LN-131: Greater Sage-Grouse – Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse – Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-02: Black-Footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
*T&E-05: Listed Plant Species

UTU92711

(UT1217 – 084)

T. 7 S., R. 25 E., SLM

Secs. 17, 18, 19 and 20: All.

2,560.00 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-99: CSU – Fragile Soils/Slopes

UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-205: TL – Greater Sage-Grouse Brood Rearing and Nesting

UT-S-207: CSU – Greater Sage-Grouse (Structures)

UT-S-230: TL – Crucial Deer and Elk Winter Range

UT-S-231: CSU – Crucial Deer Winter Range

UT-S-261: TL – Raptor Buffers

LEASE NOTICES

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

UT-LN-40: Golden Eagle Habitat

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

*UT-LN-53: Riparian Areas

UT-LN-51: Special Status Species: Not Federally Listed

UT-LN-68: Notification & Consultation Regarding Cultural Resources

UT-LN-72: High Potential Paleontological Resources

UT-LN-83: Site Right-of-Way

UT-LN-85: Tar Sands Area

UT-LN-96: Air Quality Mitigation Measures

UT-LN-99: Regional Ozone Formation Controls

UT-LN-102: Air Quality Analysis

UT-LN-115: Light and Sound

UT-LN-128: Floodplain Management

UT-LN-131: Greater Sage-Grouse – Net Conservation Gain

UT-LN-132: Greater Sage-Grouse – Required Design Features

UT-LN-133: Greater Sage-Grouse – Buffer

*UT-LN-156: Pollinators and Pollinator Habitat

*T&E-02: Black-Footed Ferret

T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin

*T&E-05: Listed Plant Species

UTU92712

(UT1217 – 085)

T. 7 S., R. 25 E., SLM

Secs. 23 and 24: All;

Sec. 25: Lots 1-3, W2NW, SWSW;
Secs. 26 and 35: All.
2,370.88 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-159: CSU – Visual Resources – VRM II
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-231: CSU – Crucial Deer Winter Range
UT-S-261: TL – Raptor Buffers
*UT-S-299: CSU/TL – Black-Footed Ferret – Primary Management Zone Area

LEASE NOTICES

UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Species: Not Federally Listed
*UT-LN-53: Riparian Areas
*UT-LN-56: Drinking Water Source Protection Zone
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
*UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-115: Light and Sound
UT-LN-128: Floodplain Management
UT-LN-131: Greater Sage-Grouse – Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse – Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-02: Black-Footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
*T&E-05: Listed Plant Species

UTU92713

(UT1217 – 086)
T. 7 S., R. 25 E., SLM
Secs. 27, 33 and 34: All.
1,920.00 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-159: CSU – Visual Resources – VRM II
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-231: CSU – Crucial Deer Winter Range
UT-S-261: TL – Raptor Buffers
*UT-S-299: CSU/TL – Black-Footed Ferret – Primary Management Zone Area

LEASE NOTICES

*UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Species: Not Federally Listed
*UT-LN-53: Riparian Areas
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-72: High Potential Paleontological Resources
UT-LN-85: Tar Sands Area
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-115: Light and Sound
UT-LN-128: Floodplain Management
UT-LN-131: Greater Sage-Grouse – Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse – Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-02: Black-Footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
*T&E-05: Listed Plant Species

UTU92714

(UT1217 – 087)
T. 7 S., R. 25 E., SLM
Secs. 28 and 29: All;
Sec. 30: NE, E2SE.
1,520.00 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-159: CSU – Visual Resources – VRM II

UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-231: CSU – Crucial Deer Winter Range
UT-S-261: TL – Raptor Buffers
*UT-S-299: CSU/TL – Black-Footed Ferret – Primary Management Zone Area

LEASE NOTICES

UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Species: Not Federally Listed
*UT-LN-53: Riparian Areas
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-115: Light and Sound
UT-LN-128: Floodplain Management
UT-LN-131: Greater Sage-Grouse – Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
UT-LN-133: Greater Sage-Grouse – Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-02: Black-Footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
*T&E-05: Listed Plant Species

UTU92765

(UT0817 – 002)

T. 13 S., R. 1 W., SLM

Sec. 7: Lots 3, 4, E2SW, W2SE;

Sec. 15: E2, E2NENW;

Sec. 17: NENE, S2NE, S2SW, SE;

Sec. 18: Lots 5-10, E2SW, W2SE.

1,299.34 Acres

Juab County, Utah

Fillmore Field Office

STIPULATIONS

*UT-S-01: Air Quality
UT-S-347: NSO – Greater Sage-Grouse Priority Habitat Management Areas
UT-S-348: CSU/NSO – Greater Sage-Grouse Disturbance Cap
UT-S-349: CSU/NSO – Greater Sage-Grouse Density Limitation
UT-S-350: TL/CSU – Greater Sage-Grouse Breeding Season Noise Limitations
UT-S-352: CSU – Greater Sage-Grouse Tall Structures
UT-S-353: TL – Greater Sage-Grouse Breeding, Nesting and Early Brood Rearing
UT-S-354: TL – Greater Sage-Grouse Brood-Rearing

UT-S-355: TL – Greater Sage-Grouse Winter Habitat
UT-S-356: CSU – Greater Sage-Grouse Indirect Impacts from Noise
UT-S-357: CSU – Greater Sage-Grouse Indirect Impacts from Tall Structures

LEASE NOTICES

UT-LN-34: Bald Eagle Winter Roost Sites
UT-LN-36: Bald Eagle Habitat
UT-LN-37: Bald Eagle Habitat
UT-LN-38: Ferruginous Hawk Nest Site
UT-LN-39: Golden Eagle Nest Sites
UT-LN-40: Golden Eagle Habitat
UT-LN-42: Burrowing Owl Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-52: Noxious Weed
*UT-LN-53: Riparian Areas
*UT-LN-54: Floodplains
UT-LN-60: Steep Slopes
*UT-LN-72: High Potential Paleontological Resources
UT-LN-96: Air Quality Mitigation Measures
*UT-LN-99: Regional Ozone Mitigation Measures
UT-LN-101: Air Quality
UT-LN-102: Air Quality Analysis
UT-LN-107: Bald Eagle
*UT-LN-128: Floodplain Management
UT-LN-129: Greater Sage-Grouse – Disturbance Cap
UT-LN-130: Greater Sage-Grouse – Density Limitations
UT-LN-131: Greater Sage-Grouse – Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
UT-LN-133: Greater Sage-Grouse – Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-05: Listed Plant Species
*T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU92766

(UT0817 – 004)

T. 14 S., R. 1 W., SLM

Sec. 6: Lots 24-26, 41-44, NWSE;
Sec. 7: Lots 12-15, 22-26, 28-32;
Sec. 18: Lots 6-13, 24-29;
Sec. 19: Lots 4-6, 13-15, 22-24, 30-33;
Sec. 30: Lots 4-14, 24-27.

2,316.94 Acres
Juab County, Utah

Fillmore Field Office

STIPULATIONS

*UT-S-01: Air Quality

LEASE NOTICES

UT-LN-34: Bald Eagle Winter Roost Sites

UT-LN-36: Bald Eagle Habitat

UT-LN-37: Bald Eagle Habitat

UT-LN-38: Ferruginous Hawk Nest Site

UT-LN-39: Golden Eagle Nest Sites

UT-LN-40: Golden Eagle Habitat

UT-LN-42: Burrowing Owl Habitat

UT-LN-44: Raptors

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

*UT-LN-51: Special Status Plants: Not Federally Listed

UT-LN-52: Noxious Weed

*UT-LN-53: Riparian Areas

*UT-LN-54: Floodplains

UT-LN-60: Steep Slopes

*UT-LN-72: High Potential Paleontological Resources

UT-LN-96: Air Quality Mitigation Measures

*UT-LN-99: Regional Ozone Formation Controls

UT-LN-101: Air Quality

UT-LN-102: Air Quality Analysis

UT-LN-107: Bald Eagle

*UT-LN-128: Floodplain Management

*UT-LN-156: Pollinators and Pollinator Habitat

*T&E-05: Listed Plant Species

UTU92807

(UT0817 – 001)

T. 13 S., R. 1 W., SLM

Sec. 3: Lots 2-4, SWNE, S2NW, SW;

Sec. 4: All;

Sec. 8: E2E2;

Sec. 9: All;

Sec. 10: S2NW, SW, SWSE.

2,145.10 Acres

Juab County, Utah

Fillmore Field Office

STIPULATIONS

*UT-S-01: Air Quality

*UT-S-131: CSU Critical Watershed (Perennial Streams and Springs)

UT-S-347: NSO – Greater Sage-Grouse Priority Habitat Management Areas
UT-S-348: NSO/CSU – Greater Sage-Grouse Disturbance Cap
UT-S-349: NSO/CSU – Greater Sage-Grouse Density Limitation
UT-S-350: CSU/TL – Greater Sage-Grouse Breeding Season Noise Limitations
UT-S-352: CSU – Greater Sage-Grouse Tall Structures
UT-S-353: TL – Greater Sage-Grouse Breeding, Nesting and Early Brood Rearing
UT-S-354: TL – Greater Sage-Grouse Brood-Rearing
UT-S-355: TL – Greater Sage-Grouse Winter Habitat
UT-S-356: CSU – Greater Sage-Grouse Indirect Impacts from Noise
UT-S-357: CSU – Greater Sage-Grouse Indirect Impacts from Tall Structures

LEASE NOTICES

UT-LN-34: Bald Eagle Winter Roost Sites
UT-LN-36: Bald Eagle Habitat
UT-LN-37: Bald Eagle Habitat
UT-LN-38: Ferruginous Hawk Nest Site
UT-LN-39: Golden Eagle Nest Sites
UT-LN-40: Golden Eagle Habitat
UT-LN-42: Burrowing Owl Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-52: Noxious Weed
*UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
*UT-LN-72: High Potential Paleontological Resources
UT-LN-96: Air Quality Mitigation Measures
*UT-LN-99: Regional Ozone Formation Controls
UT-LN-101: Air Quality
UT-LN-102: Air Quality Analysis
UT-LN-107: Bald Eagle
UT-LN-129: Greater Sage-Grouse – Disturbance Cap
UT-LN-130: Greater Sage-Grouse – Density Limitations
UT-LN-131: Greater Sage-Grouse – Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
UT-LN-133: Greater Sage-Grouse – Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-05: Listed Plant Species

UTU93001

(UT0318 – 007)
T. 22 S., R. 17 E., SLM
Secs. 21, 22 and 23: All.
1,920.00 Acres
Grand County, Utah

Moab Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-109: TL – Fragile Soils-Mancos Shale

UT-S-122: NSO – Floodplains, Riparian Areas, Springs and Public Water Resources

UT-S-272: CSU/TL – Burrowing Owl and Ferruginous Hawk Nesting

UT-S-298: CSU – Kit Fox

*UT-S-358: Air Quality and Greenhouse Gases

*UT-S-359: Air Quality I

*UT-S-360: Air Quality II

LEASE NOTICES

UT-LN-15: Pronghorn Fawning

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

UT-LN-40: Golden Eagle Habitat

UT-LN-44: Raptors

UT-LN-45: Migratory Bird

UT-LN-49: Utah Sensitive Species

*UT-LN-51: Special Status Plants: Not Federally Listed

UT-LN-53: Riparian Areas

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-125: Light and Sound (Sensitive Resources)

UT-LN-128: Floodplain Management

*UT-LN-136: Air Quality

*UT-LN-156: Pollinators and Pollinator Habitat

*T&E-05: Listed Plant Species

T&E-23: Colorado River Endangered Fish

T&E-26: Southwestern Willow Flycatcher Habitat (Riparian Areas)

T&E-27: Yellow-Billed Cuckoo

T&E-28: California Condor (Potential Habitat)

UTU93002

(UT0318 – 008)

T. 22 S., R. 17 E., SLM

Secs. 26 and 27: All;

Sec. 28: W2SE, SESE.

1,400.00 Acres

Grand County, Utah

Moab Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-122: NSO – Floodplains, Riparian Areas, Springs and Public Water Resources

UT-S-272: CSU/TL – Burrowing Owl and Ferruginous Hawk Nesting

UT-S-298: CSU – Kit Fox

*UT-S-358: Air Quality and Greenhouse Gases

*UT-S-359: Air Quality I

*UT-S-360: Air Quality II

*UT-S-398: CSU – BLM Sensitive Plant Habitat

LEASE NOTICES

UT-LN-15: Pronghorn Fawning

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

UT-LN-45: Migratory Bird

UT-LN-49: Utah Sensitive Species

*UT-LN-51: Special Status Plants: Not Federally Listed

UT-LN-53: Riparian Areas

*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-125: Light and Sound (Sensitive Resources)

UT-LN-128: Floodplain Management

*UT-LN-136: Air Quality

*UT-LN-156: Pollinators and Pollinator Habitat

*T&E-05: Listed Plant Species

T&E-23: Colorado River Endangered Fish

T&E-26: Southwestern Willow Flycatcher Habitat (Riparian Areas)

T&E-27: Yellow-Billed Cuckoo

T&E-28: California Condor (Potential Habitat)

T&E-29: Jones Cycladenia (Potential, Suitable and Occupied Habitat)

UTU93003

(UT0318 – 009)

T. 22 S., R. 17 E., SLM

Secs. 33, 34 and 35: All.

1,920.00 Acres

Grand County, Utah

Moab Field Office

STIPULATIONS

UT-S-358: CSU – Air Quality and Greenhouse Gases

UT-S-359: CSU – Air Quality I

UT-S-360: CSU – Air Quality II

UT-S-370: CSU – Paleontology
UT-S-376: Baseline CSU – Recreation (Canyon Rims, Labyrinth Rims/Gemini Bridges and South Moab SRMAs)
UT-S-382: CSU – Soil (Saline Soils within the Mancos Shale)
UT-S-383: CSU – Soil (Saline Soils)
UT-S-384: CSU – Soil (Steep Slopes)
UT-S-386: NSO – Water (Water Resources)
UT-S-387: NSO – Water (Ephemeral Streams)
UT-S-395: CSU – Old Spanish Trail (High Potential Sites and Segments)
*UT-S-398: CSU – BLM Sensitive Plant Habitat
*UT-S-408: CSU – Auditory Management – Soundscape (Lands Bordering Arches and Canyonlands National Parks)
*UT-S-409: NSO - Auditory Management – Soundscape (Lands Bordering Arches and Canyonlands National Parks)

LEASE NOTICES

UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
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-125: Light and Sound (Sensitive Resources)
UT-LN-136: Air Quality
UT-LN-137: Cultural Resources I
UT-LN-138: Cultural Resources II
UT-LN-140: Old Spanish National Historic Trail
UT-LN-142: Golden Eagle (Nest Sites and Territories)
UT-LN-143: Raptors
UT-LN-144: Migratory Bird
UT-LN-145: Ferruginous Hawk and Burrowing Owl Habitat
UT-LN-147: Kit Fox Habitat
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-05: Listed Plant Species
T&E-23: Colorado River Endangered Fish
T&E-26: Southwestern Willow Flycatcher Habitat (Riparian Areas)
T&E-27: Yellow-Billed Cuckoo
T&E-28: California Condor (Potential Habitat)
T&E-29: Jones Cycladenia (Potential, Suitable and Occupied Habitat)

UTU93004

(UT0318 – 010)
T. 25 S., R. 18 E., SLM
Sec. 8: NE, S2.
480.00 Acres

Grand County, Utah
Moab Field Office

STIPULATIONS

UT-S-358: CSU – Air Quality and Greenhouse Gases

UT-S-359: CSU – Air Quality I

UT-S-360: CSU – Air Quality II

*UT-S-365: CSU – Lands with Wilderness Characteristics

UT-S-376: Baseline CSU – Recreation (Canyon Rims, Labyrinth Rims/Gemini Bridges and South Moab SRMAs)

UT-S-384: CSU – Soil (Steep Slopes)

*UT-S-386: NSO – Water Resources

UT-S-387: NSO – Water (Ephemeral Streams)

*UT-S-398: CSU – BLM Sensitive Plant Habitat

UT-S-401: CSU – Visual Resources (VRI Class II areas designated as VRM Class III)

*UT-S-408: CSU – Auditory Management – Soundscape (Lands Bordering Arches and Canyonlands National Parks)

* UT-S-409: NSO - Auditory Management – Soundscape (Lands Bordering Arches and Canyonlands National Parks)

UT-S-412: CSU – Wildlife (Desert Bighorn Sheep Lambing and Rutting Habitat)

UT-S-413: CSU – Wildlife (Desert Bighorn Sheep and Deer and Elk Crucial Winter Habitat)

LEASE NOTICES

UT-LN-49: Utah Sensitive Species

*UT-LN-51: Special Status Plants: Not Federally Listed

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-125: Light and Sound (Sensitive Resources)

UT-LN-136: Air Quality

UT-LN-137: Cultural Resources I

UT-LN-138: Cultural Resources II

UT-LN-142: Golden Eagle (Nest Sites and Territories)

UT-LN-143: Raptors

UT-LN-144: Migratory Birds

UT-LN-147: Kit Fox Habitat

*UT-LN-156: Pollinators and Pollinator Habitat

*T&E-05: Listed Plant Species

T&E-23: Colorado River Endangered Fish

T&E-25: Mexican Spotted Owl

T&E-28: California Condor (Potential Habitat)

T&E-29: Jones Cycladenia (Potential, Suitable and Occupied Habitat)

T&E-30: Navajo Sedge (Potential, Suitable and Occupied Habitat)

UTU93005

(UT0318 – 012)

T. 26 S., R. 20 E., SLM

Sec. 4: All.

715.76 Acres

Grand County, Utah

Moab Field Office

STIPULATIONS

UT-S-358: CSU – Air Quality and Greenhouse Gases

UT-S-359: CSU – Air Quality I

UT-S-360: CSU – Air Quality IIUT-S-364: CSU – Filming Locations

UT-S-365: CSU – Lands with Wilderness Characteristics

UT-S-370: CSU – Paleontology

UT-S-372: NSO – Recreation (High Use Recreation Routes and Trails)

UT-S-376: Baseline CSU – Recreation (Canyon Rims, Labyrinth Rims/Gemini Bridges and
South Moab SRMAs)

UT-S-384: CSU – Soil (Steep Slopes)

*UT-S-386: NSO – Water Resources

UT-S-387: NSO – Water (Ephemeral Streams)

*UT-S-398: CSU – BLM Sensitive Plant Habitat

UT-S-404: NSO – Visual Resources VRM II Areas

UT-S-408: CSU – Auditory Management-Soundscape (Lands bordering Arches and
Canyonlands National Parks)

* UT-S-409: NSO - Auditory Management – Soundscape (Lands Bordering Arches and
Canyonlands National Parks)

UT-S-412: CSU – Wildlife (Desert Bighorn Sheep Lambing and Rutting Habitat)

UT-S-413: CSU – Wildlife (Desert Bighorn Sheep and Deer and Elk Crucial Winter Habitat)

LEASE NOTICES

UT-LN-49: Utah Sensitive Species

*UT-LN-51: Special Status Plants: Not Federally Listed

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-125: Light and Sound (Sensitive Resources)

UT-LN-136: Air Quality

UT-LN-137: Cultural Resources I

UT-LN-138: Cultural Resources II

UT-LN-139: Cultural Resources (High Potential for Cultural Sites)

UT-LN-142: Golden Eagle (Nest Sites and Territories)

UT-LN-143: Raptors

UT-LN-144: Migratory Birds

UT-LN-147: Kit Fox Habitat

*UT-LN-156: Pollinators and Pollinator Habitat

*T&E-05: Listed Plant Species
T&E-23: Colorado River Endangered Fish
T&E-25: Mexican Spotted Owl
T&E-28: California Condor (Potential Habitat)
T&E-29: Jones Cycladenia (Potential, Suitable and Occupied Habitat)
T&E-30: Navajo Sedge (Potential, Suitable and Occupied Habitat)

UTU93008

(UT0318 – 018)

T. 27 S., R. 22 E., SLM

Sec. 19: Lots 2-4, W2NE, E2NW, E2SE;

Sec. 20: N2SW, SWSW;

Sec. 29: NE, N2SE, SESE;

Sec. 30: Lots 1, 2, 4;

Sec. 31: Lots 1-4.

988.72 Acres

San Juan County, Utah

Moab Field Office

STIPULATIONS

UT-S-317: Unit Joinder – Hatch Point Unit (UTU73349X)

UT-S-358: CSU – Air Quality and Greenhouse Gases

UT-S-359: CSU – Air Quality I

UT-S-360: CSU – Air Quality II

*UT-S-365: CSU – Lands with Wilderness Characteristics

UT-S-370: CSU – Paleontology

UT-S-372: NSO – Recreation (High Use Recreation Routes and Trails)

UT-S-376: Baseline CSU – Recreation (Canyon Rims, Labyrinth Rims/Gemini Bridges and South Moab SRMAs)

UT-S-384: CSU – Soil (Steep Slopes)

UT-S-386: NSO – Water (Water Resources)

UT-S-387: NSO – Water (Ephemeral Streams)

*UT-S-395: CSU – Old Spanish Trail (High Potential Sites and Segments)

*UT-S-398: CSU – BLM Sensitive Plant Habitat

UT-S-401: CSU – Visual Resources (VRI Class II areas designated as VRM Class III)

UT-S-404: NSO – Visual Resources VRM II Areas

*UT-S-408: CSU – Auditory Management – Soundscape (Lands Bordering Arches and Canyonlands National Parks)

*UT-S-409: NSO - Auditory Management – Soundscape (Lands Bordering Arches and Canyonlands National Parks)

UT-S-411: TL – Wildlife (Pronghorn Fawning Habitat)

LEASE NOTICES

UT-LN-49: Utah Sensitive Species

UT-LN-72: High Potential Paleontological Resources

*UT-LN-51: Special Status Plants: Not Federally Listed

*UT-LN-96: Air Quality Mitigation Measures

*UT-LN-99: Regional Ozone Formation Controls
*UT-LN-102: Air Quality Analysis
UT-LN-125: Light and Sound (Sensitive Resources)
UT-LN-136: Air Quality
UT-LN-137: Cultural Resources I
UT-LN-138: Cultural Resources II
UT-LN-139: Cultural Resources (High Potential for Cultural Sites)
UT-LN-142: Golden Eagle (Nest Sites and Territories)
UT-LN-143: Raptors
UT-LN-144: Migratory Birds
UT-LN-145: Ferruginous Hawk and Burrowing Owl Habitat
UT-LN-146: White-Tailed Prairie Dog/Gunnison Prairie Dog Habitat
UT-LN-147: Kit Fox Habitat
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-05: Listed Plant Species
*T&E-08 – Southwestern willow flycatcher
T&E-23: Colorado River Endangered Fish
T&E-25: Mexican Spotted Owl
T&E-26: Southwestern Willow Flycatcher Habitat (Riparian Areas)
T&E-27: Yellow-Billed Cuckoo
T&E-28: California Condor (Potential Habitat)
T&E-29: Jones Cycladenia (Potential, Suitable and Occupied Habitat)
T&E-30: Navajo Sedge (Potential, Suitable and Occupied Habitat)
*T&E-33: Isley milkvetch
*T&E-35: Silverspot butterfly (*Speyeria nokomis nokomis*)

UTU93010

(UT0318 – 021)

T. 29 S., R. 22 E., SLM

Sec. 23: NENE, E2W2NE, SENE, NESE, E2NWSE;

Sec. 24: N2NW, SWNW.

300.00 Acres

San Juan County, Utah

Moab Field Office

STIPULATIONS

UT-S-317: Unit Joinder – Threemile Unit (UTU84722X)

UT-S-358: CSU – Air Quality and Greenhouse Gases

UT-S-359: CSU – Air Quality I

UT-S-360: CSU – Air Quality II

UT-S-365: CSU – Lands with Wilderness Characteristics

UT-S-374: NSO – Recreation (Western Portion of the Canyon Rims SRMA)

UT-S-375: NSO – Recreation (Canyon Rims SRMA Hatch Wash Focus Area)

UT-S-376: Baseline CSU – Recreation (Canyon Rims, Labyrinth Rims/Gemini Bridges and
South Moab SRMAs)

UT-S-384: CSU – Soil (Steep Slopes)

UT-S-386: NSO – Water (Water Resources)

UT-S-387: NSO – Water (Ephemeral Streams)
*UT-S-395: CSU – Old Spanish Trail (High Potential Sites and Segments)
*UT-S-398: CSU – BLM Sensitive Plant Habitat
UT-S-399: CSU – Vegetation (Sagebrush/Steppe Habitat)
UT-S-401: CSU – Visual Resources (VRI Class II areas designated as VRM Class III)
UT-S-404: NSO – Visual Resources VRM II Areas
*UT-S-408: CSU – Auditory Management – Soundscape (Lands Bordering Arches and Canyonlands National Parks)
*UT-S-409: NSO - Auditory Management – Soundscape (Lands Bordering Arches and Canyonlands National Parks)
UT-S-411: TL – Wildlife (Pronghorn Fawning Habitat)

LEASE NOTICES

UT-LN-49: Utah Sensitive Species
UT-LN-72: High Potential Paleontological Resources
*UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-96: Air Quality Mitigation Measures
*UT-LN-99: Regional Ozone Formation Controls
*UT-LN-102: Air Quality Analysis
UT-LN-125: Light and Sound (Sensitive Resources)
UT-LN-136: Air Quality
UT-LN-137: Cultural Resources I
UT-LN-138: Cultural Resources II
UT-LN-139: Cultural Resources (High Potential for Cultural Sites)
UT-LN-142: Golden Eagle (Nest Sites and Territories)
UT-LN-143: Raptors
UT-LN-144: Migratory Birds
UT-LN-145: Ferruginous Hawk and Burrowing Owl Habitat
UT-LN-146: White-Tailed Prairie Dog/Gunnison Prairie Dog Habitat
UT-LN-147: Kit Fox Habitat
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-05: Listed Plant Species
*T&E-08 – Southwestern willow flycatcher
T&E-23: Colorado River Endangered Fish
T&E-25: Mexican Spotted Owl
T&E-26: Southwestern Willow Flycatcher Habitat (Riparian Areas)
T&E-27: Yellow-Billed Cuckoo
T&E-28: California Condor (Potential Habitat)
T&E-29: Jones Cycladenia (Potential, Suitable and Occupied Habitat)
T&E-30: Navajo Sedge (Potential, Suitable and Occupied Habitat)
*T&E-35: Silverspot butterfly (*Speyeria nokomis nokomis*)

UTU93012

(UT0318 – 024)
T. 29 S., R. 23 E., SLM
Sec. 22: N2SW.
80.00 Acres

San Juan County, Utah
Moab Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-272: CSU/TL – Burrowing Owl and Ferruginous Hawk Nesting
UT-S-275: CSU/TL – Bald Eagles
UT-S-317: Unit Joinder – La Sal Unit (UTU87718X)
UT-S-358: CSU – Air Quality and Greenhouse Gases
UT-S-359: CSU – Air Quality I
UT-S-360: CSU – Air Quality II
UT-S-364: CSU – Filming Locations
UT-S-376: Baseline CSU – Recreation (Canyon Rims, Labyrinth Rims/Gemini Bridges and South Moab SRMAs)
UT-S-386: NSO – Water (Water Resources)
UT-S-387: NSO – Water (Ephemeral Streams)
UT-S-395: CSU – Old Spanish Trail (High Potential Sites and Segments)
*UT-S-398: CSU – BLM Sensitive Plant Habitat
UT-S-399: CSU – Vegetation (Sagebrush/Steppe Habitat)
*UT-S-408: CSU – Auditory Management – Soundscape (Lands Bordering Arches and Canyonlands National Parks)
* UT-S-409: NSO - Auditory Management – Soundscape (Lands Bordering Arches and Canyonlands National Parks)
UT-S-411: TL – Wildlife (Pronghorn Fawning Habitat)

LEASE NOTICES

UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-56: Drinking Water Source Protection Zone
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-125: Light and Sound (Sensitive Resources)
UT-LN-128: Floodplain Management
UT-LN-136: Air Quality
UT-LN-137: Cultural Resources I
UT-LN-138: Cultural Resources II
UT-LN-139: Cultural Resources (High Potential for Cultural Sites)
UT-LN-140: Old Spanish National Historic Trail
UT-LN-142: Golden Eagle (Nest Sites and Territories)
UT-LN-143: Raptors
UT-LN-144: Migratory Birds
UT-LN-145: Ferruginous Hawk and Burrowing Owl Habitat
UT-LN-146: White-Tailed Prairie Dog/Gunnison Prairie Dog Habitat
UT-LN-147: Kit Fox Habitat
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-05: Listed Plant Species

T&E-23: Colorado River Endangered Fish
T&E-25: Mexican Spotted Owl
T&E-28: California Condor (Potential Habitat)
T&E-29: Jones Cycladenia (Potential, Suitable and Occupied Habitat)
T&E-30: Navajo Sedge (Potential, Suitable and Occupied Habitat)

UTU93013

(UT0318 – 025)
T. 29 S., R. 23 E., SLM
Sec. 31: SESW.
40.00 Acres
San Juan County, Utah
Moab Field Office
Monticello Field Office

STIPULATIONS

*UT-S-01: Air Quality
UT-S-317: Unit Joinder – La Sal Unit (UTU87718X)
UT-S-358: CSU – Air Quality and Greenhouse Gases
UT-S-359: CSU – Air Quality I
UT-S-360: CSU – Air Quality II
UT-S-370: CSU – Paleontology
UT-S-384: CSU – Soil (Steep Slopes)
UT-S-386: NSO – Water (Water Resources)
UT-S-387: NSO – Water (Ephemeral Streams)
*UT-S-395: CSU – Old Spanish Trail (High Potential Sites and Segments)
*UT-S-398: CSU – BLM Sensitive Plant Habitat
*UT-S-408: CSU – Auditory Management – Soundscape (Lands Bordering Arches and Canyonlands National Parks)
* UT-S-409: NSO - Auditory Management – Soundscape (Lands Bordering Arches and Canyonlands National Parks)
UT-S-411: TL – Wildlife (Pronghorn Fawning Habitat)

LEASE NOTICES

UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-96: Air Quality Mitigation Measures
*UT-LN-99: Regional Ozone Formation Controls
*UT-LN-102: Air Quality Analysis
UT-LN-125: Light and Sound (Sensitive Resources)
UT-LN-136: Air Quality
UT-LN-137: Cultural Resources I
UT-LN-138: Cultural Resources II
UT-LN-139: Cultural Resources (High Potential for Cultural Sites)
UT-LN-141: Bald Eagles (Nest Sites and Winter Roost Areas)
UT-LN-142: Golden Eagle (Nest Sites and Territories)
UT-LN-143: Raptors

UT-LN-144: Migratory Birds
UT-LN-145: Ferruginous Hawk and Burrowing Owl Habitat
UT-LN-146: White-Tailed Prairie Dog/Gunnison Prairie Dog Habitat
UT-LN-147: Kit Fox Habitat
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-05: Listed Plant Species
*T&E-08 – Southwestern willow flycatcher
T&E-23: Colorado River Endangered Fish
T&E-25: Mexican Spotted Owl
T&E-26: Southwestern Willow Fly Catcher (Riparian Areas)
T&E-27: Yellow-Billed Cuckoo
T&E-28: California Condor (Potential Habitat)
T&E-29: Jones Cycladenia (Potential, Suitable and Occupied Habitat)
T&E-30: Navajo Sedge (Potential, Suitable and Occupied Habitat)
*T&E-35: Silverspot butterfly (*Speyeria nokomis nokomis*)

UTU93014

(UT0318 – 026)
T. 29½ S., R. 23 E., SLM
Sec. 31: All.
652.76 Acres
San Juan County, Utah
Moab Field Office
Monticello Field Office

STIPULATIONS

UT-S-358: CSU – Air Quality and Greenhouse Gases
UT-S-359: CSU – Air Quality I
UT-S-360: CSU – Air Quality II
UT-S-376: Baseline CSU – Recreation (Canyon Rims, Labyrinth Rims/Gemini Bridges and South Moab SRMAs)
UT-S-384: CSU – Soil (Steep Slopes)
UT-S-386: NSO – Water (Water Resources)
UT-S-387: NSO – Water (Ephemeral Streams)
*UT-S-395: CSU – Old Spanish Trail (High Potential Sites and Segments)
*UT-S-398: CSU – BLM Sensitive Plant Habitat
*UT-S-408: CSU – Auditory Management – Soundscape (Lands Bordering Arches and Canyonlands National Parks)
*UT-S-409: NSO - Auditory Management – Soundscape (Lands Bordering Arches and Canyonlands National Parks)
UT-S-411: TL – Wildlife (Pronghorn Fawning Habitat)

LEASE NOTICES

UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
*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-125: Light and Sound (Sensitive Resources)
UT-LN-136: Air Quality
UT-LN-137: Cultural Resources I
UT-LN-138: Cultural Resources II
UT-LN-139: Cultural Resources (High Potential for Cultural Sites)
UT-LN-141: Bald Eagles (Nest Sites and Winter Roost Areas)
UT-LN-142: Golden Eagle (Nest Sites and Territories)
UT-LN-143: Raptors
UT-LN-144: Migratory Birds
UT-LN-145: Ferruginous Hawk and Burrowing Owl Habitat
UT-LN-146: White-Tailed Prairie Dog/Gunnison Prairie Dog Habitat
UT-LN-147: Kit Fox Habitat
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-05: Listed Plant Species
T&E-23: Colorado River Endangered Fish
T&E-25: Mexican Spotted Owl
T&E-26: Southwestern Willow Fly Catcher (Riparian Areas)
T&E-27: Yellow-Billed Cuckoo
T&E-28: California Condor (Potential Habitat)
T&E-29: Jones Cycladenia (Potential, Suitable and Occupied Habitat)
T&E-30: Navajo Sedge (Potential, Suitable and Occupied Habitat)
*T&E-35: Silverspot butterfly (*Speyeria nokomis nokomis*)

UTU93250

(UT0618 – 001)

T. 27 S., R. 3 E., SLM

Sec. 3: All;

Sec. 10: Lots 1-4, E2NE, E2NW, SW, E2SE;

Sec. 11: All.

1,843.36 Acres

Wayne County, Utah

Richfield Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-102: CSU – Fragile Soils/Slopes 30 Percent or Greater

UT-S-111: NSO – Wetland/Hydric Soils

UT-S-121: NSO – Riparian and Wetland Areas

UT-S-221: CSU/TL – Utah Prairie Dog

UT-S-233: TL – Crucial Mule Deer and Elk Winter Habitat

UT-S-276: CSU/TL – Bald Eagle

UT-S-291: CSU/TL – Southwestern Willow Flycatcher

UT-S-293: CSU/TL – California Condor

UT-S-310 – CSU/TL – Last Chance Townsendia (*Townsendia aprica*)

UT-S-347: NSO – Greater Sage-Grouse Priority Habitat Management Areas

UT-S-348: CSU/NSO – Greater Sage-Grouse Disturbance Cap
UT-S-349: CSU/NSO – Greater Sage-Grouse Density Limitation
UT-S-350: CSU/TL – Greater Sage-Grouse Breeding Season Noise Limitations
UT-S-352: CSU – Greater Sage-Grouse Tall Structures
UT-S-353: TL – Greater Sage-Grouse Breeding, Nesting and Early Brood Rearing
UT-S-354: TL – Greater Sage-Grouse Brood Rearing
UT-S-355: TL – Greater Sage-Grouse Winter Habitat

LEASE NOTICES

UT-LN-40: Golden Eagle Habitat
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-53: Riparian Areas
UT-LN-68: Notifications and Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
*UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formations Controls
*UT-LN-101: Air Quality
UT-LN-102: Air Quality Analysis
UT-LN-107: Bald Eagle
UT-LN-128: Floodplain Management
UT-LN-129: Greater Sage-Grouse – Disturbance cap
UT-LN-130: Greater Sage-Grouse – Density Limitation
UT-LN-131: Greater Sage-Grouse – Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
UT-LN-133: Greater Sage-Grouse – Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-03: Endangered Fish of the Colorado River Drainage Basin
*T&E-05: Listed Plant Species
*T&E-09: Utah Prairie Dog
*T&E-14 – Last Chance Townsendia (*Townsendia aprica*)

UTU93251

(UT0618 – 002)
T. 27 S., R. 3 E., SLM
Sec. 14: All;
Sec. 15: Lots 1, 2, E2NE, NENW, S2NW, S2.
1,241.39 Acres
Wayne County, Utah
Richfield Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-102: CSU – Fragile Soils/Slopes 30 Percent or Greater
*UT-S-111: NSO – Wetland/Hydric Soils
*UT-S-121: NSO – Riparian and Wetland Areas
UT-S-221: CSU/TL – Utah Prairie Dog

UT-S-233: TL – Crucial Mule Deer and Elk Winter Habitat
UT-S-276: CSU/TL – Bald Eagle
UT-S-293: CSU/TL – California Condor
UT-S-310 – CSU/TL – Last Chance Townsendia (*Townsendia aprica*)

LEASE NOTICES

UT-LN-40: Golden Eagle Habitat
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-53: Riparian Areas
*UT-LN-72: High Potential Paleontological Resources
UT-LN-68: Notifications and Consultation Regarding Cultural Resources
*UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formations Controls
*UT-LN-101: Air Quality
UT-LN-102: Air Quality Analysis
UT-LN-107: Bald Eagle
*UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-05: Listed Plant Species
*T&E-03: Endangered Fish of the Colorado River Drainage Basin
*T&E-09: Utah Prairie Dog
*T&E-14 – Last Chance Townsendia (*Townsendia aprica*)

UTU93252

(UT0618 – 003)
T. 23 S., R. 1 W., SLM
Sec. 6: All.
623.00 Acres
Sevier County, Utah
Richfield Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-102: CSU – Fragile Soils/Slopes 30 Percent or Greater
*UT-S-111: NSO – Wetland/Hydric Soils
UT-S-121: NSO – Riparian and Wetland Areas
UT-S-233: TL – Crucial Mule Deer and Elk Winter Habitat
UT-S-276: CSU/TL – Bald Eagle
UT-S-293: CSU/TL – California Condor
*UT-S-314: CSU/TL – Ute Ladies'-Tresses

LEASE NOTICES

UT-LN-40: Golden Eagle Habitat
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species

UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-53: Riparian Areas
UT-LN-65: Old Spanish Trail
UT-LN-68: Notifications and Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
*UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formations Controls
*UT-LN-101: Air Quality
UT-LN-102: Air Quality Analysis
UT-LN-107: Bald Eagle
UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-05: Listed Plant Species
*T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)
*T&E-27: Western Yellow-billed Cuckoo

UTU93260

(UT1217 – 039)

T. 11 S., R. 16 E., SLM

Sec. 6: Lots 1-7, S2NE, SENW;

Sec. 7: All.

853.78 Acres

Duchesne County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-23: NSO/CSU/TL – Nine Mile Canyon ACEC
UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soil/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat
UT-S-261: TL – Raptor Buffers

LEASE NOTICES

UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-53: Riparian Areas
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-96: Air Quality Mitigation Measures
*UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)
UT-LN-99: Regional Ozone Formation Controls

UT-LN-102: Air Quality Analysis
UT-LN-115: Light and Sound
UT-LN-128: Floodplain Management
UT-LN-131: Greater Sage-Grouse – Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
* UT-LN-133: Greater Sage-Grouse – Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-12: Pariette Cactus (*sclerocactus brevispinus*) and Uinta Basin Hookless Cactus
[*sclerocactus glaucus (brevispinus and wetlandicus)*]

UTU93261

(UT1217 – 041)
T. 10 S., R. 17 E., SLM
 Sec. 30: Lot 4;
 Sec. 31: Lots 1-4, E2NW, E2SW.
359.20 Acres
Duchesne County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soil/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat
UT-S-261: TL – Raptor Buffers

LEASE NOTICES

UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-53: Riparian Areas
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-115: Light and Sound
UT-LN-128: Floodplain Management
UT-LN-131: Greater Sage-Grouse – Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
UT-LN-133: Greater Sage-Grouse – Buffer

*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
*T&E-05: Listed Plant Species

UTU93433

(UT0918 – 001)
T. 5 N., R. 6 E., SLM
Sec. 26: S2NE, NW, N2SW, SWSW, NWSE.
400.00 Acres
Rich County, Utah (46.92 ac.)
Summit County, Utah (353.08 ac.)
Salt Lake Field Office

STIPULATIONS

*UT-S-01: Air Quality
UT-S-104: NSO – Slopes in Excess of 30 Percent
UT-S-132: NSO – Live Water
UT-S-219: CSU – White-Tailed Prairie Dog Towns
UT-S-281: CSU/TL – Bald Eagle Habitat/Nesting Areas
UT-S-347: NSO – Greater Sage-Grouse Priority Habitat Management Areas
UT-S-348: NSO/CSU – Greater Sage-Grouse Disturbance Cap
UT-S-349: NSO/CSU – Greater Sage-Grouse Density Limitation
UT-S-350: CSU/TL – Greater Sage-Grouse Breeding Season Noise Limitations
UT-S-352: CSU – Greater Sage-Grouse Tall Structures
UT-S-353: TL – Greater Sage-Grouse Breeding, Nesting and Early Brood Rearing
UT-S-354: TL – Greater Sage-Grouse Brood-Rearing
UT-S-355: TL – Greater Sage-Grouse Winter Habitat
UT-S-420: CSU/TL – Raptor Eyries
UT-S-421: Air Quality Monitoring

LEASE NOTICES

UT-LN-07: Crucial Moose Calving Habitat
UT-LN-09: Crucial Elk Calving and Deer Fawning Habitat
UT-LN-37: Bald Eagle Habitat
UT-LN-40: Golden Eagle Habitat
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-52: Noxious Weeds
UT-LN-53: Riparian Areas
UT-LN-56: Drinking Water Source Protection Zone
*UT-LN-72: High Potential Paleontological Resources
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-101: Air Quality
UT-LN-102: Air Quality Analysis
UT-LN-104: Burrowing Owl Habitat

UT-LN-107: Bald Eagle

*UT-LN-122: Colorado or Bonneville Cutthroat Trout Habitat

UT-LN-128: Floodplain Management

UT-LN-129: Greater Sage-Grouse – Disturbance Cap

UT-LN-130: Greater Sage-Grouse – Density Limitation

UT-LN-131: Greater Sage-Grouse – Net Conservation Gain

UT-LN-132: Greater Sage-Grouse – Required Design Features

UT-LN-133: Greater Sage-Grouse – Buffer

*UT-LN-156: Pollinators and Pollinator Habitat

*T&E-05: Listed Plant Species

*T&E-10: Canada Lynx

T&E-31: Western Yellow-billed Cuckoo

*T&E-36: North American wolverine

UTU93602

(UT0918 – 022)

T. 16 S., R. 2 W., SLM

Sec. 1: Lot 3, SENW, SW;

Sec. 11: N2NE, SWNE, E2NW;

Sec. 12: NE, SESW, N2SE;

Sec. 13: SENE, NENW.

800.15 Acres

Juab County, Utah

Fillmore Field Office

STIPULATIONS

*UT-S-01: Air Quality

*UT-S-131: CSU – Critical Watershed (Perennial Streams and Springs)

*UT-S-138: NSO – Sevier River and DMAD Reservoir

*UT-S-150: NSO – Sevier River Riparian Area

LEASE NOTICES

UT-LN-37: Bald Eagle Habitat

UT-LN-38: Ferruginous Hawk Nest Sites

UT-LN-39: Golden Eagle Nest Sites

UT-LN-40: Golden Eagle Habitat

UT-LN-42: Burrowing Owl Habitat

UT-LN-44: Raptors

UT-LN-45: Migratory Birds

*UT-LN-48: Conservation Agreement Species

UT-LN-49: Utah Sensitive Species

*UT-LN-51: Special Status Plants: Not Federally Listed

UT-LN-52: Noxious Weeds

*UT-LN-53: Riparian Areas

*UT-LN-54: Floodplains

UT-LN-55: Water and Watershed Protection

UT-LN-59: Erodible Soils and Steep Soils

UT-LN-60: Steep Slopes
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-101: Air Quality
UT-LN-102: Air Quality Analysis
UT-LN-122: Colorado or Bonneville Cutthroat Trout Habitat
UT-LN-147: Kit Fox Habitat
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-05: Listed Plant Species
*T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)
*T&E-27: Western Yellow-billed Cuckoo

UTU93603

(UT0918 – 020)

T. 15 S., R. 1 W., SLM

Sec. 17: NENE, NENW, SWNW;

Sec. 18: Lots 1-4, W2NE, E2NW, E2SW, SWSE;

Sec. 19: Lots 1, 4, W2NE, E2NW;

Sec. 30: Lots 1-4, E2NW, E2SW, W2SE;

Sec. 31: Lots 1-5, E2NW, NESW.

1,521.74 Acres

Juab County, Utah

Fillmore Field Office

STIPULATIONS

*UT-S-01: Air Quality

*UT-S-131: CSU – Critical Watershed (Perennial Streams and Springs)

LEASE NOTICES

UT-LN-37: Bald Eagle Habitat

UT-LN-38: Ferruginous Hawk Nest Sites

UT-LN-39: Golden Eagle Nest Sites3UT-LN-40: Golden Eagle Habitat3UT-LN-42: Burrowing Owl Habitat3UT-LN-44: Raptors3UT-LN-45: Migratory Birds3*UT-LN-48: Conservation Agreement Species

UT-LN-49: Utah Sensitive Species

*UT-LN-51: Special Status Plants: Not Federally Listed

UT-LN-52: Noxious Weeds

*UT-LN-53: Riparian Areas

*UT-LN-54: Floodplains

UT-LN-55: Water and Watershed Protection

UT-LN-59: Erodible Soils and Steep Soils

UT-LN-60: Steep Slopes

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-101: Air Quality
UT-LN-102: Air Quality Analysis
UT-LN-122: Colorado or Bonneville Cutthroat Trout Habitat
UT-LN-147: Kit Fox Habitat
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-05: Listed Plant Species
*T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)
*T&E-27: Western Yellow-billed Cuckoo

UTU93604

(UT0918 – 021)

T. 15 S., R. 1 1/2 W., SLM

Sec. 23: Lots 1-4, N2NE, SWNE, NWSE;
Sec. 24: Lots 1-3, W2NE, NW, NESW, NWSE;
Sec. 25: All excepting ROW U0145588;
Sec. 35: Lots 1-4, NE, W2SE.

1,709.412 Acres

Juab County, Utah

Fillmore Field Office

STIPULATIONS

*UT-S-01: Air Quality
*UT-S-131: CSU – Critical Watershed (Perennial Streams and Springs)

LEASE NOTICES

UT-LN-37: Bald Eagle Habitat
UT-LN-38: Ferruginous Hawk Nest Sites
UT-LN-39: Golden Eagle Nest Sites
UT-LN-40: Golden Eagle Habitat
UT-LN-42: Burrowing Owl Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-52: Noxious Weeds
*UT-LN-53: Riparian Areas
*UT-LN-54: Floodplains
UT-LN-55: Water and Watershed Protection
UT-LN-59: Erodible Soils and Steep Soils
UT-LN-60: Steep Slopes
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-101: Air Quality
UT-LN-102: Air Quality Analysis
UT-LN-122: Colorado or Bonne
*UT-LN-156: Pollinators and Pollinator Habitat ville Cutthroat Trout Habitat
UT-LN-147: Kit Fox Habitat
*T&E-05: Listed Plant Species
*T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)
*T&E-27: Western Yellow-billed Cuckoo

UTU93605

(UT0918 – 024)

T. 16 S., R. 2 W., SLM

Sec. 13: W2SW;

Sec. 14: SENE, E2SW, SE;

Sec. 23: E2, E2NW, E2SW;

Sec. 24: W2NW, N2SW, SWSW, NWSE;

Sec. 25: SWNW, W2SW;

Sec. 26: NE, NENW, S2NW, N2SW, E2SE;

Sec. 35: E2NE, NESE.

1,760.00 Acres

Juab County, Utah

Fillmore Field Office

STIPULATIONS

*UT-S-01: Air Quality
*UT-S-131: CSU – Critical Watershed (Perennial Streams and Springs)
UT-S-138: NSO – Sevier River and DMAD Reservoir
UT-S-150: NSO – Sevier River Riparian Area

LEASE NOTICES

UT-LN-37: Bald Eagle Habitat
UT-LN-38: Ferruginous Hawk Nest Sites
UT-LN-39: Golden Eagle Nest Sites
UT-LN-40: Golden Eagle Habitat
UT-LN-42: Burrowing Owl Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-48: Conservation Agreement Species
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-52: Noxious Weeds
*UT-LN-53: Riparian Areas
*UT-LN-54: Floodplains
UT-LN-55: Water and Watershed Protection
UT-LN-59: Erodible Soils and Steep Soils
UT-LN-60: Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources

*UT-LN-72: High Potential Paleontological Resources
UT-LN-93: Reservoirs and Perennial Streams
*UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
*UT-LN-101: Air Quality
UT-LN-102: Air Quality Analysis
UT-LN-122: Colorado or Bonneville Cutthroat Trout Habitat
UT-LN-147: Kit Fox Habitat
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-05: Listed Plant Species
*T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)
*T&E-27: Western Yellow-billed Cuckoo

UTU93611

(UT0918 – 060)
T. 26 S., R. 13 E., SLM
Secs. 6 and 7: All.
1,269.16 Acres
Emery County, Utah
Price Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-97: NSO – Fragile Soils/Slopes for Slopes Greater Than 40%
UT-S-101: CSU – Fragile Soils/Slopes 20-40 Percent
UT-S-126: NSO – Natural Springs
UT-S-127: NSO – Intermittent and Perennial Streams
*UT-S-169: CSU - Cultural Resource Inventories
UT-S-285: TL – Migratory Bird Nesting
UT-S-305: CSU – Noxious Weed

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-51: Special Status Plants: Not Federally Listed
UT-LN-99: Regional Ozone Formation Controls
*UT-LN-96: Air Quality Mitigation Measures
UT-LN-102: Air Quality Analysis
UT-LN-156: Pollinators and Pollinator Habitat
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-19: Jones Cycladenia (*cycladenia hymilis var jonesii*)

UTU93612

(UT0918 – 062)

T. 26 S., R. 13 E., SLM

Secs. 15, 21 and 22: All.

1,920.00 Acres

Emery County, Utah

Price Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-97: NSO – Fragile Soils/Slopes for Slopes Greater Than 40%

UT-S-101: CSU – Fragile Soils/Slopes 20-40 Percent

UT-S-126: NSO – Natural Springs

UT-S-127: NSO – Intermittent and Perennial Streams

*UT-S-169: CSU - Cultural Resource Inventories

UT-S-269: NSO – Mexican Spotted Owl

UT-S-285: TL – Migratory Bird Nesting

UT-S-305: CSU – Noxious Weed

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-51: Special Status Plants: Not Federally Listed

*UT-LN-53: Riparian Areas

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-156: Pollinators and Pollinator Habitat

T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin

T&E-05: Listed Plant Species

T&E-06: Mexican Spotted Owl

T&E-19: Jones Cycladenia (*cycladenia hymilis var jonesii*)

UTU93645

(UT1218 – 098)

T. 11 S., R. 20 E., SLM

Sec. 19: SENE.

40.00 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-96: NSO – Fragile Soils/Slopes greater than 40%

UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-175: CSU/TL – Cultural Resources – Upper Willow Creek Area of the Book Cliffs
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-50: Habitat Restoration
*UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-70: High Potential for Cultural Resource Occurrence
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-20: Clay Reed – Mustard (*schoenocrambe argillacea*)
T&E-21: Shrubby Reed – Mustard (*schoenocrambe suffrutescens*)
T&E-22: Ute Ladies'-Tresses (*spiranthes dluvialis*)

UTU93646

(UT1218 – 105)

T. 7 S., R. 21 E., SLM

Sec. 1: Lots 11 and 12.

84.56 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes

UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
*UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-261: TL – Raptor Buffers
UT-S-278: CSU – Bald Eagle Winter Roost
UT-S-325: TL – Raptor Nest Sites
UT-S-326: NSO – Lower Green River Expansion

LEASE NOTICES

UT-LN-16: Pronghorn Fawning Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-37: Bald Eagle Habitat
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
*UT-LN-89: Horseshoe Milkvetch (*astragalus equisolensis*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-107: Bald Eagle
*UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-02: Black-Footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
*T&E-05: Listed Plant Species
T&E-31: Western Yellow-Billed Cuckoo

UTU93650

(UT1218 – 125)
T. 6 S., R. 22 E., SLM
Sec. 26: All;
Sec. 35: NWNE.
680.00 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-96: NSO – Fragile Soils/Slopes greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites
UT-S-326: NSO – Lower Green River Expansion

LEASE NOTICES

UT-LN-16: Pronghorn Fawning Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
*UT-LN-89: Horseshoe Milkvetch (*astragalus equisolensis*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-02: Black-Footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
*T&E-05: Listed Plant Species

UTU93651

(UT1218 – 128)

T. 12 S., R. 22 E., SLM

Sec. 1: All;

Sec. 11: E2, SWNW, W2SW;

Sec. 12: N2, N2SE, SESE;

Sec. 14: N2NE.

1,600.00 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes

UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-231: CSU – Crucial Deer Winter Range
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-50: Habitat Restoration
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
*UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes duluvialis*)
*T&E-27: Western Yellow-billed Cuckoo

UTU93655

(UT1218 – 150)
T. 7 S., R. 23 E., SLM
Sec. 4: Lots 3-6, 11, 12, S2NW, NESW, S2SW.
401.91 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes

UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-16: Pronghorn Fawning Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
*UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-02: Black-Footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
*T&E-05: Listed Plant Species

UTU93656

(UT1218 – 152)

T. 10 S., R. 23 E., SLM

Sec. 13: Lots 1, 4, E2NE, W2SW, SESW, SE;

Sec. 14: S2;

Sec. 23: All;

Sec. 24: SWNE, W2, SE.

1,888.24 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-87: NSO – White River BLM Natural Area
UT-S-96: NSO – Fragile Soils/Slopes greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes

UT-S-100:	CSU – Fragile Soils/Slopes (21%-40%)
UT-S-120:	NSO – White River Corridor
UT-S-123:	NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157:	NSO/CSU/TL – Visual Resources
UT-S-159:	CSU – Visual Resources – VRM II
UT-S-218:	CSU – White-Tailed Prairie Dog
UT-S-230:	TL – Crucial Deer and Elk Winter Range
UT-S-231:	CSU – Crucial Deer Winter Range
UT-S-247:	TL – Crucial Elk Calving and Deer Fawning Habitat
UT-S-261:	TL – Raptor Buffers
UT-S-325:	TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02:	Crucial Winter Mule Deer and Elk Habitat
UT-LN-11:	Crucial Elk Calving and Deer Fawning Habitat
UT-LN-16:	Pronghorn Fawning Habitat
UT-LN-25:	White-Tailed and Gunnison Prairie Dog
UT-LN-40:	Golden Eagle Habitat
UT-LN-44:	Raptors
UT-LN-45:	Migratory Birds
UT-LN-49:	Utah Sensitive Species
*UT-LN-50:	Habitat Restoration
*UT-LN-51:	Special Status Plants: Not Federally Listed
UT-LN-53:	Riparian Areas
UT-LN-60:	Steep Slopes
UT-LN-61:	Severe Soil Erosion & Steep Slopes
UT-LN-68:	Notification & Consultation Regarding Cultural Resources
*UT-LN-72:	High Potential Paleontological Resources
UT-LN-83:	Site Right-of-Way
*UT-LN-90:	Graham's Beardtongue (<i>penstemon grahamii</i>)
UT-LN-96:	Air Quality Mitigation Measures
UT-LN-99:	Regional Ozone Formation Controls
UT-LN-102:	Air Quality Analysis
UT-LN-128:	Floodplain Management
*UT-LN-156:	Pollinators and Pollinator Habitat
T&E-03:	Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05:	Listed Plant Species
T&E-12:	Pariette Cactus (<i>sclerocactus brevispinus</i>) and Uinta Basin Hookless Cactus [<i>sclerocactus glaucus (brevispinus and wetlancicus)</i>]
T&E-22:	Ute Ladies'-Tresses (<i>spiranthes duluvialis</i>)
*T&E-27:	Western Yellow-billed Cuckoo
T&E-31:	Western Yellow-Billed Cuckoo

UTU93657

(UT1218 – 153)

T. 10 S., R. 23 E., SLM

Secs. 19 and 20: All;
Sec. 21: W2NW, W2SW;
Sec. 28: N2, N2SW, SESW, SE;
Sec. 29: NE, N2NW, SENW, NESW, N2SE.

2,438.16 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
*UT-S-47: NSO – White River SRMA
UT-S-87: NSO – White River BLM Natural Area
UT-S-96: NSO – Fragile Soils/Slopes greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-120: NSO – White River Corridor
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-159: CSU – Visual Resources – VRM II
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-231: CSU – Crucial Deer Winter Range
UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
UT-LN-11: Crucial Elk Calving and Deer Fawning Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-50: Habitat Restoration
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
*UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-106: Special Recreation Management Area
UT-LN-120: Abandoned Mine Workings

UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-12: Pariette Cactus (*sclerocactus brevispinus*) and Uinta Basin Hookless Cactus
[*sclerocactus glaucus (brevispinus and wetlancicus)*]
T&E-22: Ute Ladies'-Tresses (*spiranthes duluvialis*)
*T&E-27: Western Yellow-billed Cuckoo
T&E-31: Western Yellow-Billed Cuckoo

UTU93658

(UT1218 – 154)

T. 10 S., R. 23 E., SLM

Sec. 21: E2, E2NW, E2SW;

Sec. 22: NE, W2NW, SENW, S2;

Sec. 27: All;

Sec. 34: NE, N2NW, SENW, S2SW, NESE.

2,120.00 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
*UT-S-47: NSO – White River SRMA
UT-S-87: NSO – White River BLM Natural Area
UT-S-96: NSO – Fragile Soils/Slopes greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-120: NSO – White River Corridor
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-159: CSU – Visual Resources – VRM II
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-231: CSU – Crucial Deer Winter Range
UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-11: Crucial Elk Calving and Deer Fawning Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-50: Habitat Restoration

- *UT-LN-51: Special Status Plants: Not Federally Listed
- UT-LN-53: Riparian Areas
- UT-LN-60: Steep Slopes
- UT-LN-61: Severe Soil Erosion & Steep Slopes
- UT-LN-68: Notification & Consultation Regarding Cultural Resources
- *UT-LN-72: High Potential Paleontological Resources
- UT-LN-83: Site Right-of-Way
- *UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)
- UT-LN-96: Air Quality Mitigation Measures
- UT-LN-99: Regional Ozone Formation Controls
- UT-LN-102: Air Quality Analysis
- UT-LN-106: Special Recreation Management Area
- UT-LN-128: Floodplain Management
- *UT-LN-156: Pollinators and Pollinator Habitat
- T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
- T&E-05: Listed Plant Species
- T&E-12: Pariette Cactus (*sclerocactus brevispinus*) and Uinta Basin Hookless Cactus [*sclerocactus glaucus (brevispinus and wetlancicus)*]
- T&E-22: Ute Ladies'-Tresses (*spiranthes duluvialis*)
- *T&E-27: Western Yellow-billed Cuckoo
- T&E-31: Western Yellow-Billed Cuckoo

UTU93659

(UT1218 – 155)

T. 10 S., R. 23 E., SLM

Secs. 25, 26, 35 and 36: All.

2,560.00 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

- UT-S-01: Air Quality
- UT-S-87: NSO – White River BLM Natural Area
- UT-S-96: NSO – Fragile Soils/Slopes greater than 40%
- UT-S-99: CSU – Fragile Soils/Slopes
- UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
- UT-S-120: NSO – White River Corridor
- UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
- UT-S-157: NSO/CSU/TL – Visual Resources
- UT-S-159: CSU – Visual Resources – VRM II
- UT-S-218: CSU – White-Tailed Prairie Dog
- UT-S-230: TL – Crucial Deer and Elk Winter Range
- UT-S-231: CSU – Crucial Deer Winter Range
- UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat
- UT-S-261: TL – Raptor Buffers
- UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
UT-LN-11: Crucial Elk Calving and Deer Fawning Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-50: Habitat Restoration
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
*UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-120: Abandoned Mine Workings
UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-12: Pariette Cactus (*sclerocactus brevispinus*) and Uinta Basin Hookless Cactus
[*sclerocactus glaucus (brevispinus and wetlancicus)*]
T&E-22: Ute Ladies'-Tresses (*spiranthes dultuvialis*)
*T&E-27: Western Yellow-billed Cuckoo
T&E-31: Western Yellow-Billed Cuckoo

UTU93660

(UT1218 – 156)

T. 11 S., R. 23 E., SLM
Sec. 1: Lots 1-8.

233.16 Acres

Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-87: NSO – White River BLM Natural Area
UT-S-96: NSO – Fragile Soils/Slopes greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
*UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
*UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-120: Abandoned Mine Workings
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-12: Pariette Cactus (*sclerocactus brevispinus*) and Uinta Basin Hookless Cactus
[*sclerocactus glaucus (brevispinus and wetlancicus)*]
*T&E-22: Ute Ladies'-Tresses (*spiranthes dulongialis*)

UTU93661

(UT1218 – 157)
T. 11 S., R. 23 E., SLM
Secs. 31 and 33: All.
1,246.92 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
*UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
*UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes dulongialis*)

UTU93662

(UT1218 – 158)

T. 12 S., R. 23 E., SLM

Sec. 19: Lots 1-4, W2E2NENE, W2NENE, W2NE, W2NESENE, W2SENE, SESENE,
E2NW, E2SW, SE;

Sec. 20: SWSWNWSW, W2W2SWSW, SESWSWSW;

Sec. 29: W2NWNW, W2E2SWNW, W2SWNW, W2NENWSW, SENENWSW,
W2NWSW, SENWSW, SWSW, W2SWSESW;

Secs. 30 and 31: All.

1,985.34 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
*UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-231: CSU – Crucial Deer Winter Range
UT-S-261: TL – Raptor Buffers

UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
*UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
*UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
*T&E-05: Listed Plant Species
*T&E-27: Western Yellow-billed Cuckoo

UTU93663

(UT1218 – 159)

T. 12 S., R. 23 E., SLM

Sec. 21: E2NENENE;

Sec. 22: NE, E2NENENW, NWNWNENW, N2N2NWNW, E2SE, E2NWSE,
E2W2NWSE, E2SWSE;

Secs. 23 and 24: All.

1,592.50 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
*UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-231: CSU – Crucial Deer Winter Range

UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-96: Air Quality Mitigation Measures
*UT-LN-90: Graham’s Beardtongue (*penstemon grahamii*)
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
*UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies’-Tresses (*spiranthes duluvialis*)

UTU93664

(UT1218 – 160)

T. 12 S., R. 23 E., SLM

Secs. 25 and 26: All;

Sec. 27: E2, NENENENW, S2N2NENW, S2NENW, SENENWNW, E2SENWNW,
E2NESWNW, SENW, N2NESW, N2SWNESW, SESWNESW, SENESW,
E2SESW, E2NWSESW, NESWSESW;

Sec. 34: NE, E2NENW, E2E2SENW, N2NESE, SWNESE, N2SENESE,
N2NWNWSE;

Sec. 35: N2, N2NESW, N2SWNESW, SESWNESW, SENESW, N2NWSW,
N2SWNWSW, E2SESW, E2W2SESW, SE.

2,552.56 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)

*UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-159: CSU – Visual Resources – VRM II
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-231: CSU – Crucial Deer Winter Range
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
*UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
*UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes duluvialis*)

UTU93665

(UT1218 – 161)

T. 13 S., R. 23 E., SLM

Sec. 1: Lots 1-4, S2NE, S2NW, N2N2SW, E2SE, NENWSE, N2NWNWSE, SENWSE, E2SWSE;

Sec. 11: E2W2NWNE;

Sec. 12: E2NE, E2W2NE, S2NENESW, SENESW, E2SESW, NESE, NENWSE, S2NWNWSE, S2NWSE, S2SE.

772.12 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-96: NSO – Fragile Soils/Slopes greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-231: CSU – Crucial Deer Winter Range
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-50: Habitat Restoration
UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-90: Graham's Beardtongue (*penstemon Grahamii*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes dulongialis*)

UTU93666

(UT1218 – 163)
T. 13 S., R. 23 E., SLM
Sec. 13: E2SE;
Secs. 24, 25 and 36: All.
2,000.00 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-96: NSO – Fragile Soils/Slopes greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-231: CSU – Crucial Deer Winter Range
UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat
UT-S-251: TL – Deer Migration Corridor (Monument and McCook Ridges)
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-50: Habitat Restoration
*UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-120: Abandoned Mine Workings
UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes duluvialis*)
*T&E-27: Western Yellow-billed Cuckoo

UTU93668

(UT1218 – 180)
T. 10 S., R. 24 E., SLM
Sec. 20: NE, S2;
480.00 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

- UT-S-01: Air Quality
- UT-S-96: NSO – Fragile Soils/Slopes greater than 40%
- UT-S-99: CSU – Fragile Soils/Slopes
- UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
- UT-S-120: NSO – White River Corridor
- UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
- UT-S-157: NSO/CSU/TL – Visual Resources
- UT-S-159: CSU – Visual Resources – VRM II
- UT-S-218: CSU – White-Tailed Prairie Dog
- UT-S-230: TL – Crucial Deer and Elk Winter Range
- UT-S-231: CSU – Crucial Deer Winter Range
- UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat
- UT-S-261: TL – Raptor Buffers
- UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

- UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
- UT-LN-11: Crucial Elk Calving and Deer Fawning Habitat
- UT-LN-25: White-Tailed and Gunnison Prairie Dog
- UT-LN-40: Golden Eagle Habitat
- UT-LN-44: Raptors
- UT-LN-45: Migratory Birds
- UT-LN-49: Utah Sensitive Species
- *UT-LN-50: Habitat Restoration
- *UT-LN-51: Special Status Plants: Not Federally Listed
- *UT-LN-53: Riparian Areas
- UT-LN-60: Steep Slopes
- UT-LN-61: Severe Soil Erosion & Steep Slopes
- UT-LN-68: Notification & Consultation Regarding Cultural Resources
- *UT-LN-72: High Potential Paleontological Resources
- UT-LN-83: Site Right-of-Way
- *UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)
- UT-LN-96: Air Quality Mitigation Measures
- UT-LN-99: Regional Ozone Formation Controls
- UT-LN-102: Air Quality Analysis
- UT-LN-128: Floodplain Management
- *UT-LN-156: Pollinators and Pollinator Habitat
- T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
- T&E-05: Listed Plant Species
- T&E-22: Ute Ladies'-Tresses (*spiranthes duluvialis*)
- *T&E-27: Western Yellow-billed Cuckoo
- T&E-31: Western Yellow-Billed Cuckoo

UTU93669

(UT1218 – 181)

T. 11 S., R. 24 E., SLM
Sec. 25: Lot 7, W2SE, SESE;
Sec. 34: N2;
Sec. 35: All.

1,119.91 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-231: CSU – Crucial Deer Winter Range
UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat
UT-S-261: TL – Raptor Buffers
UT-S-299: CSU/TL – Black-Footed Ferret – Primary Management Zone Area
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
*UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-120: Abandoned Mine Workings
*UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes duluvialis*)

UTU93670

(UT1218 – 182)

T. 12 S., R. 24 E., SLM

Sec. 1: All;

Sec. 11: N2, SW, N2SE;

Sec. 12: N2, N2SW, N2SE;

Sec. 14: W2.

2,000.08 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-96: NSO – Fragile Soils/Slopes greater than 40%

UT-S-99: CSU – Fragile Soils/Slopes

UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)

UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-157: NSO/CSU/TL – Visual Resources

UT-S-218: CSU – White-Tailed Prairie Dog

UT-S-230: TL – Crucial Deer and Elk Winter Range

UT-S-231: CSU – Crucial Deer Winter Range

UT-S-261: TL – Raptor Buffers

UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat

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

UT-LN-40: Golden Eagle Habitat

UT-LN-44: Raptors

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

UT-LN-51: Special Status Plants: Not Federally Listed

*UT-LN-53: Riparian Areas

UT-LN-60: Steep Slopes

UT-LN-61: Severe Soil Erosion & Steep Slopes

UT-LN-68: Notification & Consultation Regarding Cultural Resources

*UT-LN-72: High Potential Paleontological Resources

UT-LN-83: Site Right-of-Way

UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)

UT-LN-96: Air Quality Mitigation Measures

UT-LN-99: Regional Ozone Formation Controls

UT-LN-102: Air Quality Analysis

UT-LN-128: Floodplain Management

UT-LN-134: Graham's Beardtongue (*penstemon grahamii*) and White River Beardtongue (*penstemon scariosus* var. *albifluvis*) Conservation Areas

*UT-LN-156: Pollinators and Pollinator Habitat

T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin

T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes duluvialis*)

UTU93671

(UT1218 – 183)

T. 12 S., R. 24 E., SLM

Sec. 9: All;

Sec. 10: S2NE, S2NW, S2;

Sec. 15: All.

1,760.00 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-231: CSU – Crucial Deer Winter Range
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-120: Abandoned Mine Workings
UT-LN-128: Floodplain Management
UT-LN-134: Graham's Beardtongue (*penstemon grahamii*) and White River Beardtongue

(*penstemon scariosus* var. *albifluvis*) Conservation Areas

*UT-LN-156: Pollinators and Pollinator Habitat

T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin

T&E-05: Listed Plant Species

T&E-22: Ute Ladies'-Tresses (*spiranthes duluvialis*)

UTU93672

(UT1218 – 184)

T. 12 S., R. 24 E., SLM

Secs. 21 and 22: All;

Sec. 23: W2.

1,600.00 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-96: NSO – Fragile Soils/Slopes greater than 40%

UT-S-99: CSU – Fragile Soils/Slopes

UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)

UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-157: NSO/CSU/TL – Visual Resources

UT-S-218: CSU – White-Tailed Prairie Dog

UT-S-230: TL – Crucial Deer and Elk Winter Range

UT-S-231: CSU – Crucial Deer Winter Range

UT-S-261: TL – Raptor Buffers

UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat

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

UT-LN-40: Golden Eagle Habitat

UT-LN-44: Raptors

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

*UT-LN-51: Special Status Plants: Not Federally Listed

*UT-LN-53: Riparian Areas

UT-LN-60: Steep Slopes

UT-LN-61: Severe Soil Erosion & Steep Slopes

UT-LN-68: Notification & Consultation Regarding Cultural Resources

*UT-LN-72: High Potential Paleontological Resources

UT-LN-83: Site Right-of-Way

UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)

UT-LN-96: Air Quality Mitigation Measures

UT-LN-99: Regional Ozone Formation Controls

UT-LN-102: Air Quality Analysis

UT-LN-120: Abandoned Mine Workings

- UT-LN-128: Floodplain Management
- UT-LN-134: Graham's Beardtongue (*penstemon grahamii*) and White River Beardtongue (*penstemon scariosus* var. *albifluvis*) Conservation Areas
- *UT-LN-156: Pollinators and Pollinator Habitat
- T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
- T&E-05: Listed Plant Species
- *T&E-22: Ute Ladies'-Tresses (*spiranthes dulongialis*)

UTU93673

(UT1218 – 185)

T. 12 S., R. 24 E., SLM

Sec. 26: W2;

Sec. 27: All;

Sec. 34: NE, SESE;

Sec. 35: N2, NESW, S2SW, SE.

1,760.00 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

- UT-S-01: Air Quality
- UT-S-24: NSO/CSU/TL – Red Creek Watershed ACEC
- UT-S-96: NSO – Fragile Soils/Slopes greater than 40%
- UT-S-99: CSU – Fragile Soils/Slopes
- UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
- UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
- UT-S-157: NSO/CSU/TL – Visual Resources
- UT-S-218: CSU – White-Tailed Prairie Dog
- UT-S-230: TL – Crucial Deer and Elk Winter Range
- UT-S-231: CSU – Crucial Deer Winter Range
- UT-S-261: TL – Raptor Buffers
- UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

- UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
- UT-LN-25: White-Tailed and Gunnison Prairie Dog
- UT-LN-40: Golden Eagle Habitat
- UT-LN-44: Raptors
- UT-LN-45: Migratory Birds
- UT-LN-49: Utah Sensitive Species
- UT-LN-51: Special Status Plants: Not Federally Listed
- *UT-LN-53: Riparian Areas
- UT-LN-60: Steep Slopes
- UT-LN-61: Severe Soil Erosion & Steep Slopes
- UT-LN-68: Notification & Consultation Regarding Cultural Resources
- *UT-LN-72: High Potential Paleontological Resources
- UT-LN-83: Site Right-of-Way

- UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)
- UT-LN-96: Air Quality Mitigation Measures
- UT-LN-99: Regional Ozone Formation Controls
- UT-LN-102: Air Quality Analysis
- UT-LN-128: Floodplain Management
- UT-LN-134: Graham's Beardtongue (*penstemon grahamii*) & White River Beardtongue (*p. scariosus* var. *albifluvis*) Conservation Area
- *UT-LN-156: Pollinators and Pollinator Habitat
- T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
- T&E-05: Listed Plant Species
- T&E-22: Ute Ladies'-Tresses (*spiranthes dulongialis*)

UTU93675

(UT1218 – 188)

T. 13 S., R. 24 E., SLM

Sec. 3: S2SW;

Secs. 4 and 5: All;

Sec. 8: N2N2;

Sec. 9: NWNW;

Sec. 10: All.

2,298.77 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

- UT-S-01: Air Quality
- UT-S-96: NSO – Fragile Soils/Slopes greater than 40%
- UT-S-99: CSU – Fragile Soils/Slopes
- UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
- UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
- UT-S-157: NSO/CSU/TL – Visual Resources
- UT-S-218: CSU – White-Tailed Prairie Dog
- UT-S-230: TL – Crucial Deer and Elk Winter Range
- UT-S-231: CSU – Crucial Deer Winter Range
- UT-S-261: TL – Raptor Buffers
- UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

- UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
- UT-LN-25: White-Tailed and Gunnison Prairie Dog
- UT-LN-40: Golden Eagle Habitat
- UT-LN-44: Raptors
- UT-LN-45: Migratory Birds
- UT-LN-49: Utah Sensitive Species
- UT-LN-51: Special Status Plants: Not Federally Listed
- *UT-LN-53: Riparian Areas
- UT-LN-60: Steep Slopes

UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
*UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes duluhialis*)

UTU93676

(UT1218 – 189)

T. 13 S., R. 24 E., SLM

Sec. 6: All;

Sec. 7: Lots 1-4, N2NE, SWNE, E2NW, E2SW, W2SE.

1,196.51 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-231: CSU – Crucial Deer Winter Range
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-50: Habitat Restoration
*UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes

UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes duluvialis*)
*T&E-27: Western Yellow-billed Cuckoo

UTU93679

(UT1218 – 192)

T. 13 S., R. 24 E., SLM

Sec. 17: S2NE, S2NW, S2;

Sec. 18: Lots 1-4, W2NE, SENE, E2NW, E2SW, SE;

Secs. 19 and 20: All.

2,352.92 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-231: CSU – Crucial Deer Winter Range
UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat
UT-S-251: TL – Deer Migration Corridor (Monument and McCook Ridges)
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species

*UT-LN-50: Habitat Restoration
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes duluvialis*)
*T&E-25: Mexican Spotted Owl
*T&E-27: Western Yellow-billed Cuckoo

UTU93681

(UT1218 – 194)

T. 13 S., R. 24 E., SLM

Secs. 29, 30 and 31: All.

1,914.48 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-231: CSU – Crucial Deer Winter Range
UT-S-251: TL – Deer Migration Corridor (Monument and McCook Ridges)
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors

UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
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: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes dulongialis*)
*T&E-25: Mexican Spotted Owl
*T&E-27: Western Yellow-billed Cuckoo

UTU93684

(UT1218 – 209)

T. 9 S., R. 25 E., SLM

Sec. 24: Lot 7;

Sec. 25: Lots 1-5, SWNW.

235.74 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
*UT-S-120: NSO – White River Corridor
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-159: CSU – Visual Resources – VRM II
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-231: CSU – Crucial Deer Winter Range
UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
UT-LN-11: Crucial Elk Calving and Deer Fawning Habitat

UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-50: Habitat Restoration
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
*UT-LN-128: Floodplain Management
UT-LN-134: Graham's Beardtongue (*penstemon grahamii*) & White River Beardtongue
(*p. scariosus* var. *albifluvis*) Conservation Area
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-02: Black-Footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes dulongialis*)
*T&E-25: Mexican Spotted Owl
*T&E-27: Western Yellow-billed Cuckoo
T&E-31: Western Yellow-Billed Cuckoo

UTU93685

(UT1218 – 210)

T. 9 S., R. 25 E., SLM

Sec. 33: Lots 6-9.

72.07 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
*UT-S-120: NSO – White River Corridor
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-159: CSU – Visual Resources – VRM II
UT-S-218: CSU – White-Tailed Prairie Dog

UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-231: CSU – Crucial Deer Winter Range
UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
UT-LN-11: Crucial Elk Calving and Deer Fawning Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-50: Habitat Restoration
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
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: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes dultuvialis*)
*T&E-27: Western Yellow-billed Cuckoo
T&E-31: Western Yellow-Billed Cuckoo

UTU93686

(UT1218 – 215)

T. 11 S., R. 25 E., SLM

Sec. 1: Lots 1-10, S2NW, SW;

Sec. 12: Lots 9-16, W2.

1,196.89 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-231: CSU – Crucial Deer Winter Range
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-90: Graham’s Beardtongue (*penstemon grahamii*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-128: Floodplain Management
UT-LN-134: Graham’s Beardtongue (*penstemon grahamii*) & White River Beardtongue (*p. scariosus* var. *albifluvis*) Conservation Area
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-06: Mexican Spotted Owl
T&E-22: Ute Ladies’-Tresses (*spiranthes duluhialis*)
*T&E-25: Mexican Spotted Owl

UTU93687

(UT1218 – 219)
T. 11 S., R. 25 E., SLM
Secs. 25, 26 and 35: All..
2,150.32 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes

UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-231: CSU – Crucial Deer Winter Range
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-83: Site Right-of-Way
*UT-LN-72: High Potential Paleontological Resources
UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-120: Abandoned Mine Workings
UT-LN-128: Floodplain Management
UT-LN-134: Graham's Beardtongue (*penstemon grahamii*) & White River Beardtongue (*p. scariosus* var. *albifluvis*) Conservation Area
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes dulongialis*)
*T&E-25: Mexican Spotted Owl
*T&E-27: Western Yellow-billed Cuckoo

UTU93688

(UT1218 – 220)

T. 11 S., R. 25 E., SLM

Sec. 27: S2SW, NESE, S2SE;

Sec. 28: W2SE;

Sec. 33: W2NE, S2NW, S2;

Sec. 34: All.

1,400.00 Acres

Uintah County, Utah
Vernal Field Office

STIPULATIONS

- UT-S-01: Air Quality
- UT-S-96: NSO – Fragile Soils/Slopes greater than 40%
- UT-S-99: CSU – Fragile Soils/Slopes
- UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
- UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
- UT-S-157: NSO/CSU/TL – Visual Resources
- UT-S-218: CSU – White-Tailed Prairie Dog
- UT-S-230: TL – Crucial Deer and Elk Winter Range
- UT-S-231: CSU – Crucial Deer Winter Range
- UT-S-261: TL – Raptor Buffers
- UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

- UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
- UT-LN-25: White-Tailed and Gunnison Prairie Dog
- UT-LN-40: Golden Eagle Habitat
- UT-LN-44: Raptors
- UT-LN-45: Migratory Birds
- UT-LN-49: Utah Sensitive Species
- *UT-LN-51: Special Status Plants: Not Federally Listed
- UT-LN-53: Riparian Areas
- UT-LN-60: Steep Slopes
- UT-LN-61: Severe Soil Erosion & Steep Slopes
- UT-LN-68: Notification & Consultation Regarding Cultural Resources
- *UT-LN-72: High Potential Paleontological Resources
- UT-LN-83: Site Right-of-Way
- UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)
- UT-LN-96: Air Quality Mitigation Measures
- UT-LN-99: Regional Ozone Formation Controls
- UT-LN-102: Air Quality Analysis
- UT-LN-128: Floodplain Management
- UT-LN-134: Graham's Beardtongue (*penstemon grahamii*) & White River Beardtongue (*p. scariosus* var. *albifluvid*) Conservation Area
- *UT-LN-156: Pollinators and Pollinator Habitat
- T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
- T&E-05: Listed Plant Species
- T&E-22: Ute Ladies'-Tresses (*spiranthes duluvialis*)
- *T&E-25: Mexican Spotted Owl
- *T&E-27: Western Yellow-billed Cuckoo

UTU93692

(UT1218 – 224)
T. 12 S., R. 25 E., SLM

Secs. 27, 28, 33 and 34: All.
2,560.00 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-120: NSO – White River Corridor
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-159: CSU – Visual Resources – VRM II
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-231: CSU – Crucial Deer Winter Range
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-83: Site Right-of-Way
*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: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-06: Mexican Spotted Owl
T&E-22: Ute Ladies'-Tresses (*spiranthes dulongialis*)
*T&E-25: Mexican Spotted Owl

UTU93694

(UT1218 – 233)

T. 10 S., R. 23 E., SLM
Sec. 13: NESW.

40.00 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

- UT-S-01: Air Quality
- UT-S-96: NSO – Fragile Soils/Slopes greater than 40%
- UT-S-99: CSU – Fragile Soils/Slopes
- UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
- UT-S-120: NSO – White River Corridor
- UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
- UT-S-157: NSO/CSU/TL – Visual Resources
- UT-S-218: CSU – White-Tailed Prairie Dog
- UT-S-230: TL – Crucial Deer and Elk Winter Range
- UT-S-231: CSU – Crucial Deer Winter Range
- UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat
- UT-S-261: TL – Raptor Buffers
- UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

- UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
- UT-LN-11: Crucial Elk Calving and Deer Fawning Habitat
- UT-LN-25: White-Tailed and Gunnison Prairie Dog
- UT-LN-40: Golden Eagle Habitat
- UT-LN-44: Raptors
- UT-LN-45: Migratory Birds
- UT-LN-49: Utah Sensitive Species
- *UT-LN-50: Habitat Restoration
- *UT-LN-51: Special Status Plants: Not Federally Listed
- UT-LN-53: Riparian Areas
- UT-LN-60: Steep Slopes
- UT-LN-61: Severe Soil Erosion & Steep Slopes
- 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-106: Special Recreation Management Area
- UT-LN-120: Abandoned Mine Workings
- UT-LN-128: Floodplain Management
- *UT-LN-156: Pollinators and Pollinator Habitat
- T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
- T&E-05: Listed Plant Species
- T&E-22: Ute Ladies'-Tresses (*spiranthes duluvialis*)
- *T&E-27: Yellow-Billed Cuckoo
- T&E-31: Western Yellow-Billed Cuckoo

UTU93695

(UT1218 – 234)

T. 10 S., R. 24 E., SLM

Sec. 7: Lot 4, SESW, N2SE, SWSE;

Sec. 8: W2SW, SESW.

319.44 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

- UT-S-01: Air Quality
- UT-S-96: NSO – Fragile Soils/Slopes greater than 40%
- UT-S-99: CSU – Fragile Soils/Slopes
- UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
- UT-S-120: NSO – White River Corridor
- UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
- UT-S-157: NSO/CSU/TL – Visual Resources
- UT-S-218: CSU – White-Tailed Prairie Dog
- UT-S-230: TL – Crucial Deer and Elk Winter Range
- UT-S-231: CSU – Crucial Deer Winter Range
- UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat
- UT-S-261: TL – Raptor Buffers
- UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

- UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
- UT-LN-11: Crucial Elk Calving and Deer Fawning Habitat
- UT-LN-25: White-Tailed and Gunnison Prairie Dog
- UT-LN-40: Golden Eagle Habitat
- UT-LN-44: Raptors
- UT-LN-45: Migratory Birds
- UT-LN-49: Utah Sensitive Species
- *UT-LN-50: Habitat Restoration
- *UT-LN-51: Special Status Plants: Not Federally Listed
- UT-LN-53: Riparian Areas
- UT-LN-60: Steep Slopes
- UT-LN-61: Severe Soil Erosion & Steep Slopes
- UT-LN-68: Notification & Consultation Regarding Cultural Resources
- *UT-LN-72: High Potential Paleontological Resources
- UT-LN-83: Site Right-of-Way
- UT-LN-96: Air Quality Mitigation Measures
- UT-LN-99: Regional Ozone Formation Controls
- UT-LN-102: Air Quality Analysis
- UT-LN-106: Special Recreation Management Area
- UT-LN-120: Abandoned Mine Workings
- UT-LN-128: Floodplain Management

*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes dulongialis*)
*T&E-27: Western Yellow-billed Cuckoo
T&E-31: Western Yellow-Billed Cuckoo

UTU93696

(UT1218 – 235)
T. 12 S., R. 24 E., SLM
Sec. 34: NESE;
Sec. 35: NWSW.

80.00 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
*UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-231: CSU – Crucial Deer Winter Range
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-70: High Potential for Cultural Resources Occurrence
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis

*UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species

UTU93697

(UT1218 – 236)
T. 13 S., R. 24 E., SLM
Sec. 3: N2SW.

80.00 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-231: CSU – Crucial Deer Winter Range
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
*T&E-05: Listed Plant Species

UTU93702

(UT1218 – 246)

T. 22 S., R. 16 E., SLM
Sec. 35: NE, E2NW, S2.
560.00 Acres
Grand County, Utah
Moab Field Office

STIPULATIONS

UT-S-358: Air Quality and Greenhouse Gases
UT-S-359: Air Quality I
UT-S-360: Air Quality II
UT-S-362: NSO – Colorado and Green River Corridors
UT-S-364: CSU – Filming Locations
UT-S-370: CSU – Paleontology
UT-S-384: CSU – Steep Slopes
UT-S-386: NSO – Water Resources
UT-S-387: NSO – Ephemeral Streams
*UT-S-398: CSU – BLM Sensitive Plant Habitat
UT-S-404: NSO – Visual Resources VRM II Areas
UT-S-407: NSO – Visual Resources – Rimlands of the Green and Colorado Rivers
*UT-S-408: CSU – Auditory Management – Soundscape (Lands Bordering Arches and Canyonlands National Parks)
* UT-S-409: NSO - Auditory Management – Soundscape (Lands Bordering Arches and Canyonlands National Parks)
UT-S-413: CSU – Desert Bighorn Sheep and Deer and Elk Crucial Winter Habitat

LEASE NOTICES

UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-53: Riparian Areas
*UT-LN-96: Air Quality Mitigation Measures
*UT-LN-99: Regional Ozone Formation Controls
UT-LN-100: Fragile Soils – Mancos Shale
*UT-LN-102: Air Quality Analysis
UT-LN-125: Light and Sound – Sensitive Resources
UT-LN-128: Floodplain Management
UT-LN-136: Air Quality
UT-LN-137: Cultural Resources I
UT-LN-138: Cultural Resources II
UT-LN-139: Cultural Resources – High Potential for Cultural Sites
UT-LN-142: Golden Eagle – Nest Sites and Territories
UT-LN-143: Raptors
UT-LN-144: Migratory Birds
UT-LN-145: Ferruginous Hawk and Burrowing Owl Habitat
UT-LN-147: Kit Fox Habitat
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-05: Listed Plant Species
T&E-23: Colorado River Endangered Fish
T&E-26: Southwestern Willow Flycatcher Habitat-Riparian Areas

T&E-27: Yellow-Billed Cuckoo
T&E-28: California Condor – Potential Habitat
T&E-29: Jones Cycladenia – Potential, Suitable and Occupied Habitat
T&E-32: Cisco Milkvetch

UTU93705

(UT1218 – 249)

T. 21 S., R. 17 E., SLM

Sec. 19: E2, E2NW, excepting UTU62502;

Sec. 20: W2, excepting UTU62502;

Sec. 28: W2, SE;

Sec. 29: NE, N2NW, E2SE.

1,505.00 Acres

Grand County, Utah

Moab Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-77: NSO – Moab Canyon Utility Corridor

UT-S-109: TL – Fragile Soils – Mancos Shale

UT-S-122: NSO – Floodplains, Riparian Areas, Springs and Public Water Resources

UT-S-224: TL – Pronghorn Fawning Grounds

UT-S-272: CSU/TL – Burrowing Owl and Ferruginous Hawk Nesting

UT-S-298: CSU – Kit Fox

LEASE NOTICES

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

UT-LN-40: Golden Eagle Habitat

UT-LN-44: Raptors

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

*UT-LN-51: Special Status Plants: Not Federally Listed

*UT-LN-53: Riparian Areas

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-100: Fragile Soils – Mancos Shale

UT-LN-102: Air Quality Analysis

UT-LN-125: Light and Sound – Sensitive Resources

UT-LN-128: Floodplain Management

*UT-LN-156: Pollinators and Pollinator Habitat

*T&E-05: Listed Plant Species

*T&E-23: Colorado River Endangered Fish

T&E-28: California Condor – Potential Habitat

T&E-32: Cisco Milkvetch

UTU93707

(UT1218 – 251)

T. 21 S., R. 17 E., SLM

Secs. 33, 34 and 35: All.

1,920.00 Acres

Grand County, Utah

Moab Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-77: NSO – Moab Canyon Utility Corridor

UT-S-109: TL – Fragile Soils – Mancos Shale

UT-S-122: NSO – Floodplains, Riparian Areas, Springs and Public Water Resources

UT-S-224: TL – Pronghorn Fawning Grounds

UT-S-272: CSU/TL – Burrowing Owl and Ferruginous Hawk Nesting

UT-S-298: CSU – Kit Fox

LEASE NOTICES

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

UT-LN-40: Golden Eagle Habitat

UT-LN-44: Raptors

UT-LN-45: Migratory Birds

UT-LN-49: Utah Sensitive Species

*UT-LN-51: Special Status Plants: Not Federally Listed

*UT-LN-53: Riparian Areas

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-100: Fragile Soils – Mancos Shale

UT-LN-102: Air Quality Analysis

UT-LN-125: Light and Sound – Sensitive Resources

UT-LN-128: Floodplain Management

*UT-LN-156: Pollinators and Pollinator Habitat

*T&E-05: Listed Plant Species

T&E-07: Southwestern Willow Flycatcher

*T&E-23: Colorado River Endangered Fish

T&E-28: California Condor – Potential Habitat

T&E-32: Cisco Milkvetch

UTU93708

(UT1218 – 252)

T. 22 S., R. 17 E., SLM
Secs. 3 and 4: All.
1,386.12 Acres
Grand County, Utah
Moab Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-77: NSO – Moab Canyon Utility Corridor
UT-S-109: TL – Fragile Soils-Mancos Shale
UT-S-122: NSO – Floodplains, Riparian Areas, Springs and Public Water Resources
UT-S-224: TL – Pronghorn Fawning Grounds
UT-S-272: CSU/TL – Burrowing Owl and Ferruginous Hawk Nesting
UT-S-298: CSU – Kit Fox

LEASE NOTICES

UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
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-100: Fragile Soils – Mancos Shale
UT-LN-102: Air Quality Analysis
UT-LN-125: Light and Sound – Sensitive Resources
UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-05: Listed Plant Species
T&E-07: Southwestern Willow Flycatcher
*T&E-23: Colorado River Endangered Fish
T&E-28: California Condor – Potential Habitat
T&E-32: Cisco Milkvet

UTU93710

(UT1218 – 254)
T. 22 S., R. 17 E., SLM
Secs. 8, 9 and 10: All.
1,920.00 Acres
Grand County, Utah
Moab Field Office

STIPULATIONS

- UT-S-01: Air Quality
- UT-S-77: NSO – Moab Canyon Utility Corridor
- UT-S-109: TL – Fragile Soils – Mancos Shale
- UT-S-122: NSO – Floodplains, Riparian Areas, Springs and Public Water Resources
- UT-S-224: TL – Pronghorn Fawning Grounds
- UT-S-272: CSU/TL – Burrowing Owl and Ferruginous Hawk Nesting
- UT-S-298: CSU – Kit Fox

LEASE NOTICES

- UT-LN-25: White-Tailed and Gunnison Prairie Dog
- UT-LN-40: Golden Eagle Habitat
- UT-LN-44: Raptors
- UT-LN-45: Migratory Birds
- UT-LN-49: Utah Sensitive Species
- *UT-LN-51: Special Status Plants: Not Federally Listed
- UT-LN-53: Riparian Areas
- 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-100: Fragile Soils – Mancos Shale
- UT-LN-102: Air Quality Analysis
- UT-LN-125: Light and Sound – Sensitive Resources
- UT-LN-128: Floodplain Management
- *UT-LN-156: Pollinators and Pollinator Habitat
- *T&E-05: Listed Plant Species
- T&E-07: Southwestern Willow Flycatcher
- *T&E-23: Colorado River Endangered Fish
- T&E-28: California Condor – Potential Habitat
- T&E-32: Cisco Milkvetch

UTU93711

(UT1218 – 255)

T. 23 S., R. 17 E., SLM

Sec. 1: Lot 4, 5, S2NE, SENW, W2SW, SESW, S2SE;

Sec. 11: Lot 1, NENE, S2NE, S2NW, N2SW, SESW, SE;

Sec. 12: NE, S2NW, S2.

1,482.32 Acres

Grand County, Utah

Moab Field Office

STIPULATIONS

- *UT-S-01: Air Quality
- UT-S-358: Air Quality and Greenhouse Gases

- UT-S-359: Air Quality I
- UT-S-360: Air Quality II
- UT-S-364: CSU – Filming Locations
- UT-S-370: CSU – Paleontology
- UT-S-376: CSU – Canyon Rims, Labyrinth Rims/Gemini Bridges and South Moab SRMAs
- UT-S-382: TL – Saline Soils within the Mancos Shale
- UT-S-383: CSU – Saline Soils
- UT-S-384: CSU – Steep Slopes
- UT-S-386: NSO – Water Resources
- UT-S-387: NSO – Ephemeral Streams
- UT-S-395: CSU – Old Spanish Trail – High Potential Sites and Segments
- *UT-S-398: CSU – BLM Sensitive Plant Habitat
- *UT-S-408: CSU – Auditory Management – Soundscape (Lands Bordering Arches and Canyonlands National Parks)
- * UT-S-409: NSO - Auditory Management – Soundscape (Lands Bordering Arches and Canyonlands National Parks)
- UT-S-412: CSU – Desert Bighorn Sheep Lambing and Rutting Habitat
- UT-S-413: CSU – Desert Bighorn Sheep and Deer and Elk Crucial Winter Habitat

LEASE NOTICES

- UT-LN-49: Utah Sensitive Species
- *UT-LN-51: Special Status Plants: Not Federally Listed
- UT-LN-53: Riparian Areas
- *UT-LN-96: Air Quality Mitigation Measures
- *UT-LN-99: Regional Ozone Formation Controls
- UT-LN-100: Fragile Soils – Mancos Shale
- *UT-LN-102: Air Quality Analysis
- UT-LN-125: Light and Sound – Sensitive Resources
- UT-LN-128: Floodplain Management
- UT-LN-136: Air Quality
- UT-LN-137: Cultural Resources I
- UT-LN-138: Cultural Resources II
- UT-LN-139: Cultural Resources – High Potential for Cultural Sites
- UT-LN-140: Old Spanish National Historic Trail
- UT-LN-142: Golden Eagle – Nest Sites and Territories
- UT-LN-143: Raptors
- UT-LN-144: Migratory Birds
- UT-LN-145: Ferruginous Hawk and Burrowing Owl Habitat
- UT-LN-146: White-Tailed Prairie Dog/Gunnison Prairie Dog Habitat
- UT-LN-147: Kit Fox Habitat
- *UT-LN-156: Pollinators and Pollinator Habitat
- *T&E-05: Listed Plant Species
- *T&E-23: Colorado River Endangered Fish
- T&E-26: Southwestern Willow Flycatcher Habitat – Riparian Areas
- T&E-28: California Condor – Potential Habitat
- T&E-29: Jones Cycladenia – Potential, Suitable and Occupied Habitat
- T&E-32: Cisco Milkvetch

UTU93712

(UT1218 – 256)

T. 23 S., R. 17 E., SLM

Sec. 3: Lots 1-4, S2NE;

Secs. 4, 5 and 6: All.

2,223.82 Acres

Grand County, Utah

Moab Field Office

STIPULATIONS

*UT-S-01: Air Quality

UT-S-358: Air Quality and Greenhouse Gases

UT-S-359: Air Quality I

UT-S-360: Air Quality II

UT-S-370: CSU – Paleontology

UT-S-376: CSU – Canyon Rims, Labyrinth Rims/Gemini Bridges and South Moab SRMAs

UT-S-382: TL – Saline Soils within the Mancos Shale

UT-S-383: CSU – Saline Soils

UT-S-384: CSU – Steep Slopes

UT-S-386: NSO – Water Resources

UT-S-387: NSO – Ephemeral Streams

*UT-S-395: CSU – Old Spanish Trail (High Potential Sites and Segments)

*UT-S-398: CSU – BLM Sensitive Plant Habitat

*UT-S-408: CSU – Auditory Management – Soundscape (Lands Bordering Arches and Canyonlands National Parks)

*UT-S-409: NSO - Auditory Management – Soundscape (Lands Bordering Arches and Canyonlands National Parks)

UT-S-413: CSU – Desert Bighorn Sheep and Deer and Elk Crucial Winter Habitat

LEASE NOTICES

UT-LN-49: Utah Sensitive Species

*UT-LN-51: Special Status Plants: Not Federally Listed

UT-LN-53: Riparian Areas

*UT-LN-96: Air Quality Mitigation Measures

*UT-LN-99: Regional Ozone Formation Controls

UT-LN-100: Fragile Soils – Mancos Shale

*UT-LN-102: Air Quality Analysis

UT-LN-125: Light and Sound – Sensitive Resources

UT-LN-128: Floodplain Management

UT-LN-136: Air Quality

UT-LN-137: Cultural Resources I

UT-LN-138: Cultural Resources II

UT-LN-139: Cultural Resources – High Potential for Cultural Sites

UT-LN-142: Golden Eagle – Nest Sites and Territories

UT-LN-143: Raptors

UT-LN-144: Migratory Birds

UT-LN-145: Ferruginous Hawk and Burrowing Owl Habitat
UT-LN-146: White-Tailed Prairie Dog/Gunnison Prairie Dog Habitat
UT-LN-147: Kit Fox Habitat
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-05: Listed Plant Species
*T&E-23: Colorado River Endangered Fish
T&E-26: Southwestern Willow Flycatcher Habitat-Riparian Areas
T&E-28: California Condor – Potential Habitat
T&E-29: Jones Cycladenia – Potential, Suitable and Occupied Habitat
T&E-32: Cisco Milkvetch

UTU93714

(UT1218 – 258)

T. 23 S., R. 18 E., SLM

Secs. 1 and 3: All.

1,329.88 Acres

Grand County, Utah

Moab Field Office

STIPULATIONS

UT-S-77: NSO – Moab Canyon Utility Corridor
UT-S-358: Air Quality and Greenhouse Gases
UT-S-359: Air Quality I
UT-S-360: Air Quality II
UT-S-370: CSU – Paleontology
UT-S-376: CSU – Canyon Rims, Labyrinth Rims/Gemini Bridges and South Moab SRMAs
UT-S-382: TL – Saline Soils within the Mancos Shale
UT-S-383: CSU – Saline Soils
UT-S-384: CSU – Steep Slopes
*UT-S-386: NSO – Water Resources
UT-S-387: NSO – Ephemeral Streams
UT-S-395: CSU – Old Spanish Trail – High Potential Sites and Segments
*UT-S-398: CSU – BLM Sensitive Plant Habitat
*UT-S-408: CSU – Auditory Management – Soundscape (Lands Bordering Arches and Canyonlands National Parks)
* UT-S-409: NSO - Auditory Management – Soundscape (Lands Bordering Arches and Canyonlands National Parks)

LEASE NOTICES

UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-53: Riparian Areas
*UT-LN-96: Air Quality Mitigation Measures
*UT-LN-99: Regional Ozone Formation Controls
UT-LN-100: Fragile Soils – Mancos Shale
*UT-LN-102: Air Quality Analysis
UT-LN-125: Light and Sound – Sensitive Resources

UT-LN-128: Floodplain Management
UT-LN-136: Air Quality
UT-LN-137: Cultural Resources I
UT-LN-138: Cultural Resources II
UT-LN-139: Cultural Resources – High Potential for Cultural Sites
UT-LN-140: Old Spanish National Historic Trail
UT-LN-142: Golden Eagle – Nest Sites and Territories
UT-LN-143: Raptors
UT-LN-144: Migratory Birds
UT-LN-145: Ferruginous Hawk and Burrowing Owl Habitat
UT-LN-146: White-Tailed Prairie Dog/Gunnison Prairie Dog Habitat
UT-LN-147: Kit Fox Habitat
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-05: Listed Plant Species
*T&E-23: Colorado River Endangered Fish
T&E-28: California Condor – Potential Habitat
T&E-32: Cisco Milkvetch

UTU93715

(UT1218 – 259)

T. 23 S., R. 18 E., SLM

Secs. 4, 5 and 6: All.

1,981.63 Acres

Grand County, Utah

Moab Field Office

STIPULATIONS

UT-S-77: NSO – Moab Canyon Utility Corridor
UT-S-358: Air Quality and Greenhouse Gases
UT-S-359: Air Quality I
UT-S-360: Air Quality II
UT-S-370: CSU – Paleontology
UT-S-376: CSU – Canyon Rims, Labyrinth Rims/Gemini Bridges and South Moab SRMAs
UT-S-382: TL – Saline Soils within the Mancos Shale
UT-S-383: CSU – Saline Soils
UT-S-384: CSU – Steep Slopes
*UT-S-386: NSO – Water Resources
UT-S-387: NSO – Ephemeral Streams
*UT-S-395: CSU - Old Spanish Trail - High Potential Sites and Segments
*UT-S-398: CSU – BLM Sensitive Plant Habitat
*UT-S-408: CSU – Auditory Management – Soundscape (Lands Bordering Arches and Canyonlands National Parks)
* UT-S-409: NSO - Auditory Management – Soundscape (Lands Bordering Arches and Canyonlands National Parks)
UT-S-413: CSU – Desert Bighorn Sheep and Deer and Elk Crucial Winter Habitat

LEASE NOTICES

UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-53: Riparian Areas
*UT-LN-96: Air Quality Mitigation Measures
*UT-LN-99: Regional Ozone Formation Controls
UT-LN-100: Fragile Soils – Mancos Shale
*UT-LN-102: Air Quality Analysis
UT-LN-125: Light and Sound – Sensitive Resources
UT-LN-128: Floodplain Management
UT-LN-136: Air Quality
UT-LN-137: Cultural Resources I
UT-LN-138: Cultural Resources II
UT-LN-139: Cultural Resources – High Potential for Cultural Sites
UT-LN-140: Old Spanish National Historic Trail
UT-LN-142: Golden Eagle – Nest Sites and Territories
UT-LN-143: Raptors
UT-LN-144: Migratory Birds
UT-LN-145: Ferruginous Hawk and Burrowing Owl Habitat
UT-LN-146: White-Tailed Prairie Dog/Gunnison Prairie Dog Habitat
UT-LN-147: Kit Fox Habitat
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-05: Listed Plant Species
*T&E-23: Colorado River Endangered Fish
T&E-28: California Condor – Potential Habitat
T&E-29: Jones Cycladenia – Potential, Suitable and Occupied Habitat
T&E-32: Cisco Milkvetch

UTU93718

(UT1218 – 288)

T. 11 S., R. 23 E., SLM

Secs. 34 and 35: All.

1,280.00 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-70: High Potential for Cultural Resources Occurrence
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
*UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
*T&E-05: Listed Plant Species
*T&E-22: Ute Ladies'-Tresses (*spiranthes dultuvialis*)

UTU93723

(UT1218 – 302)

T. 38 S., R. 23 E., SLM

Secs. 1, 12 and 13: All;

Sec. 25: W2.

2,239.52 Acres

San Juan County, Utah

Monticello Field Office

STIPULATIONS

*UT-S-01: Air Quality
UT-S-17: CSU – Alkali Ridge ACEC
UT-S-106: CSU – Fragile Soils/Slopes 21-40 Percent
UT-S-128: NSO – Floodplains, Riparian Areas, Springs, and Public Water Reserves
UT-S-170: CSU – Cultural
UT-S-182: NSO – Critical Habitat of the Endangered Colorado River Fishes
UT-S-234: TL – Crucial Deer Winter Range
UT-S-275: CSU/TL – Bald Eagles
UT-S-288: CSU/TL – Mexican Spotted Owl
UT-S-294: CSU/TL – California Condor
UT-S-297: CSU/TL – Yellow-Billed Cuckoo

LEASE NOTICES

UT-LN-25: White-Tailed and Gunnison prairie Dog
UT-LN-44: Raptors

UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-53: Riparian Areas
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-125: Light and Sound – Sensitive Resources
UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-05: Listed Plant Species
T&E-06: Mexican Spotted Owl
T&E-11: California Condor
T&E-23: Colorado River Endangered Fish
*T&E-27: Western Yellow-billed Cuckoo
*T&E-34: Welsh’s milkweed (*Asclepias welshii*)

UTU93724

(UT1218 – 303)

T. 38 S., R. 23 E., SLM

Sec. 10: SW;

Secs. 15 and 22: All;

Sec. 23: W2NW, SW;

Sec. 27: N2, SW, N2SE.

2,240.00 Acres

San Juan County, Utah

Monticello Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-106: CSU – Fragile Soils/Slopes 21-40 Percent
UT-S-128: NSO – Floodplains, Riparian Areas, Springs, and Public Water Reserves
UT-S-170: CSU – Cultural
UT-S-182: NSO – Critical Habitat of the Endangered Colorado River Fishes
UT-S-275: CSU/TL – Bald Eagles
UT-S-288: CSU/TL – Mexican Spotted Owl
UT-S-294: CSU/TL – California Condor

LEASE NOTICES

UT-LN-25: White-Tailed and Gunnison prairie Dog
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed

- *UT-LN-53: Riparian Areas
- 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-125: Light and Sound – Sensitive Resources
- UT-LN-128: Floodplain Management
- *UT-LN-156: Pollinators and Pollinator Habitat
- *T&E-05: Listed Plant Species
- T&E-06: Mexican Spotted Owl
- T&E-11: California Condor
- T&E-23: Colorado River Endangered Fish
- *T&E-35: Silverspot butterfly (*Speyeria nokomis nokomis*)

UTU93725

(UT1218 – 313)
T. 12 S., R. 24 E., SLM
Sec. 18: All.
623.52 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

- UT-S-01: Air Quality
- UT-S-96: NSO – Fragile Soils/Slopes greater than 40%
- UT-S-99: CSU – Fragile Soils/Slopes
- UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
- *UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
- UT-S-157: NSO/CSU/TL – Visual Resources
- UT-S-218: CSU – White-Tailed Prairie Dog
- UT-S-230: TL – Crucial Deer and Elk Winter Range
- UT-S-231: CSU – Crucial Deer Winter Range
- UT-S-261: TL – Raptor Buffers
- UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

- UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
- UT-LN-25: White-Tailed and Gunnison Prairie Dog
- UT-LN-40: Golden Eagle Habitat
- UT-LN-44: Raptors
- UT-LN-45: Migratory Birds
- UT-LN-49: Utah Sensitive Species
- *UT-LN-51: Special Status Plants: Not Federally Listed
- *UT-LN-53: Riparian Areas
- UT-LN-60: Steep Slopes
- UT-LN-61: Severe Soil Erosion & Steep Slopes

UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-120: Abandoned Mine Workings
*UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
*T&E-05: Listed Plant Species
*T&E-22: Ute Ladies'-Tresses (*spiranthes duluhialis*)

UTU93732

(UT1218 – 328)

T. 38 S., R. 24 E., SLM

Sec. 5: Lots 1, 2, S2NE;

Sec. 6: All;

Sec. 7: Lots 1-4, NE, E2NW, E2SW;

Sec. 8: W2;

Sec. 9: NE.

1,703.31 Acres

San Juan County, Utah

Monticello Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-17: CSU – Alkali Ridge ACEC
UT-S-106: CSU – Fragile Soils/Slopes 21-40 Percent
UT-S-128: NSO – Floodplains, Riparian Areas, Springs, and Public Water Reserves
UT-S-170: CSU – Cultural
UT-S-182: NSO – Critical Habitat of the Endangered Colorado River Fishes
UT-S-234: TL – Crucial Deer Winter Range
UT-S-275: CSU/TL – Bald Eagles
UT-S-288: CSU/TL – Mexican Spotted Owl
UT-S-294: CSU/TL – California Condor
UT-S-297: CSU/TL – Yellow-Billed Cuckoo

LEASE NOTICES

UT-LN-25: White-Tailed and Gunnison prairie Dog
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-53: Riparian Areas
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-113: Western Yellow-Billed Cuckoo
UT-LN-125: Light and Sound – Sensitive Resources
UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-05: Listed Plant Species
T&E-06: Mexican Spotted Owl
T&E-11: California Condor
*T&E-23: Colorado River Endangered Fish
*T&E-27: Western Yellow-billed Cuckoo

UTU93734

(UT1218 – 330)

T. 38 S., R. 24 E., SLM

Secs. 21, 22 and 27: All.

1,920.00 Acres

San Juan County, Utah

Monticello Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-106: CSU – Fragile Soils/Slopes 21-40 Percent
UT-S-128: NSO – Floodplains, Riparian Areas, Springs, and Public Water Reserves
UT-S-170: CSU – Cultural
UT-S-182: NSO – Critical Habitat of the Colorado River Fishes
UT-S-234: TL – Crucial Deer Winter Range
UT-S-275: CSU/TL – Bald Eagles
UT-S-288: CSU/TL – Mexican Spotted Owl
UT-S-290: CSU/TL – Southwestern Willow Flycatcher
UT-S-294: CSU/TL – California Condor
UT-S-297: CSU/TL – Yellow-Billed Cuckoo

LEASE NOTICES

UT-LN-25: White-Tailed and Gunnison prairie Dog
UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-53: Riparian Areas
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-113: Western Yellow-Billed Cuckoo
UT-LN-125: Light and Sound – Sensitive Resources
UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-05: Listed Plant Species
T&E-06: Mexican Spotted Owl
T&E-07: Southwestern Willow Flycatcher
T&E-11: California Condor
*T&E-23: Colorado River Endangered Fish
*T&E-27: Western Yellow-billed Cuckoo

UTU93735

(UT1218 – 333)
T. 38 S., R. 24 E., SLM
Sec. 30: Lots 3, 4, E2SW, E2SE.
228.08 Acres
San Juan County, Utah
Monticello Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-106: CSU – Fragile Soils/Slopes 21-40 Percent
*UT-S-128: NSO – Floodplains, Riparian Areas, Springs, and Public Water Reserves
UT-S-170: CSU – Cultural
UT-S-182: NSO – Critical Habitat of the Endangered Colorado River Fishes
UT-S-234: TL – Crucial Deer Winter Range
UT-S-288: CSU/TL – Mexican Spotted Owl
UT-S-294: CSU/TL – California Condor

LEASE NOTICES

UT-LN-44: Raptors
UT-LN-45: Migratory Birds
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-53: Riparian Areas
UT-LN-67: Historical and Cultural Resource Values - Statewide
UT-LN-68: Notification & Consultation Regarding Cultural Resources - Statewide
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-125: Light and Sound – Sensitive Resources
UT-LN-128: Floodplain Management
*UT-LN-156: Pollinators and Pollinator Habitat
*T&E-05: Listed Plant Species
T&E-06: Mexican Spotted Owl

T&E-11: California Condor
*T&E-23: Colorado River Endangered Fish

UTU93881

(UT1218 – 066)

T. 10 S., R. 15 E., SLM

Sec. 22: SE;

Sec. 23: SW;

Sec. 26: All;

Sec. 27: NE, E2NW.

1,200.00 Acres

Duchesne County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%

UT-S-99: CSU – Fragile Soils/Slopes

UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)

UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-157: NSO/CSU/TL – Visual Resources

UT-S-218: CSU – White-Tailed Prairie Dog

UT-S-230: TL – Crucial Deer and Elk Winter Range

UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat

UT-S-261: TL – Raptor Buffers

UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat

UT-LN-11: Crucial Elk Calving and Deer Fawning Habitat

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

UT-LN-40: Golden Eagle Habitat

UT-LN-44: Raptors

UT-LN-45: Migratory Bird

UT-LN-49: Utah Sensitive Species

UT-LN-51: Special Status Plants: Not Federally Listed

UT-LN-53: Riparian Areas

UT-LN-60: Steep Slopes

UT-LN-61: Severe Soil Erosion & Steep Slopes

UT-LN-68: Notification & Consultation Regarding Cultural Resources

*UT-LN-72: High Potential Paleontological Resources

UT-LN-83: Site Right-of-Way

*UT-LN-96: Air Quality Mitigation Measures

*UT-LN-99: Regional Ozone Formation Controls

UT-LN-102: Air Quality Analysis

UT-LN-128: Floodplain Management

*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain

UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU93882

(UT1218 – 086)
T. 10 S., R. 16 E., SLM
Sec. 23: W2NE, W2, W2SE;
Sec. 29: All.
1,120.00 Acres
Duchesne County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
UT-LN-11: Crucial Elk Calving and Deer Fawning Habitat
UT-LN-16: Pronghorn Fawning Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls

UT-LN-102: Air Quality Analysis
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU93884

(UT1218 – 097)
T. 11 S., R. 20 E., SLM
Sec. 11: NENE.
40.00 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-50: Habitat Restoration
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
*UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls

UT-LN-102: Air Quality Analysis
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-12: Pariette Cactus (*sclerocactus brevispinus*) and Uinta Basin Hookless Cactus
(*sclerocactus wetlandicus*)
T&E-20: Clay Reed – Mustard (*schoenocramme argillacea*)
T&E-21: Shrubby Reed - Mustard (*schoenocrambe suffrutescens*)
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)
*T&E-27: Western Yellow-billed Cuckoo

UTU93888

(UT1218 – 106)
T. 10 S., R. 21 E., SLM
Sec. 33: All.

640.00 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-16: Pronghorn Fawning Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-89: Horseshoe Milkvetch (*astragalus equisolensis*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-120: Abandoned Mine Workings
UT-LN-128: Floodplain Management

UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-133A: Greater Sage-Grouse – Buffer
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU93899

(UT1218 – 127)
T. 11 S., R. 22 E., SLM
Sec. 25: NE, S2;
Sec. 26: NE, S2;
Sec. 35: All.

1,600.00 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-50: Habitat Restoration
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-69: High Potential for Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
*UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)
UT-LN-96: Air Quality Mitigation Measures

UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-128: Floodplain Management
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-133A: Greater Sage-Grouse – Buffer
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)
*T&E-27: Western Yellow-billed Cuckoo

UTU93900

(UT1218 – 129)

T. 12 S., R. 22 E., SLM

Sec. 3: SWSE;

Sec. 8: N2, N2SW, SWSW, S2SE;

Sec. 9: S2NE, W2, SE;

Sec. 10: N2, W2SW, SE.

1,680.00 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%

UT-S-99: CSU – Fragile Soils/Slopes

UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)

UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-157: NSO/CSU/TL – Visual Resources

UT-S-218: CSU – White-Tailed Prairie Dog

UT-S-261: TL – Raptor Buffers

UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-16: Pronghorn Fawning Habitat

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

UT-LN-40: Golden Eagle Habitat

UT-LN-44: Raptors

UT-LN-45: Migratory Bird

UT-LN-49: Utah Sensitive Species

*UT-LN-51: Special Status Plants: Not Federally Listed

UT-LN-53: Riparian Areas

UT-LN-60: Steep Slopes

UT-LN-61: Severe Soil Erosion & Steep Slopes

UT-LN-68: Notification & Consultation Regarding Cultural Resources

*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
*UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU93901

(UT1218 – 130)
T. 12 S., R. 22 E., SLM
Sec. 17: All;
Sec. 18: Lots 1-4, N2NE, SWNE, E2NW, NESW;
Sec. 20: N2NW, SENW, S2.
1,465.16 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-231: CSU – Crucial Deer Winter Range
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas

UT-LN-56: Drinking Water Source Protection Zone
UT-LN-57: Public Water Reserve
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
*UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU93902

(UT1218 – 131)

T. 12 S., R. 22 E., SLM

Sec. 27: S2;

Sec. 33: S2;

Sec. 34: W2, SE;

Sec. 35: S2.

1,440.00 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%

UT-S-99: CSU – Fragile Soils/Slopes

UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)

UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-157: NSO/CSU/TL – Visual Resources

UT-S-218: CSU – White-Tailed Prairie Dog

UT-S-230: TL – Crucial Deer and Elk Winter Range

UT-S-231: CSU – Crucial Deer Winter Range

UT-S-261: TL – Raptor Buffers

UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat

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

UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-90: Graham Beardtongue (*penstemon grahamii*)
*UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-120: Abandoned Mine Workings
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
UT-LN-134: Graham Beardtongue (*penstemon grahamii*) and White River Beardtongue
(*penstemon scariosus* var. *albifluvis*) Conservation Areas
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU93903

(UT1218 – 132)
T. 12 S., R. 22 E., SLM
Secs. 29, 30 and 31: All.
1,891.80 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-175: CSU/TL – Cultural Resources – Upper Willow Creek Aare of the Book Cliffs
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-231: CSU – Crucial Deer Winter Range

UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-69: High Potential for Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-90: Graham Beardtongue (*penstemon grahamii*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
UT-LN-134: Graham Beardtongue (*penstemon grahamii*) and White River Beardtongue
(*penstemon scariosus* var. *albifluvis*) Conservation Areas
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU93904

(UT1218 – 133)
T. 13 S., R. 22 E., SLM
Secs. 1, 3 and 4: All.
1,923.48 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-175: CSU/TL – Cultural Resources – Upper Willow Creek Aare of the Book Cliffs
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-231: CSU – Crucial Deer Winter Range
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-90: Graham Beardtongue (*penstemon grahamii*)
*UT-LN-96: Air Quality Mitigation Measures
*UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
UT-LN-134: Graham Beardtongue (*penstemon grahamii*) and White River Beardtongue
(*penstemon scariosus* var. *albifluvis*) Conservation Areas
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU93905

(UT1218 – 134)
T. 13 S., R. 22 E., SLM
Secs. 5, 6, 7 and 8: All.
2,537.44 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-175: CSU/TL – Cultural Resources – Upper Willow Creek Area of the Book Cliffs
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-231: CSU – Crucial Deer Winter Range
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-50: Habitat Restoration
UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-70: High Potential for Cultural Resource Occurrence
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-90: Graham Beardtongue (*penstemon grahamii*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
UT-LN-134: Graham Beardtongue (*penstemon grahamii*) and White River Beardtongue
(*penstemon scariosus* var. *albifluvis*) Conservation Areas
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU93906

(UT1218 – 135)
T. 13 S., R. 22 E., SLM

Secs. 9, 10, 11 and 14: All.
2,560.00 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-175: CSU/TL – Cultural Resources – Upper Willow Creek Area of the Book Cliffs
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-231: CSU – Crucial Deer Winter Range
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-50: Habitat Restoration
UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-70: High Potential for Cultural Resource Occurrence
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-90: Graham Beardtongue (*penstemon grahamii*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
UT-LN-134: Graham Beardtongue (*penstemon grahamii*) and White River Beardtongue
(*penstemon scariosus* var. *albifluvis*) Conservation Areas
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species

T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU93907

(UT1218 – 136)

T. 13 S., R. 22 E., SLM

Secs. 15, 16, 17 and 18: All.

2,547.00 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%

UT-S-99: CSU – Fragile Soils/Slopes

UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)

UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-157: NSO/CSU/TL – Visual Resources

UT-S-175: CSU/TL – Cultural Resources – Upper Willow Creek Aare of the Book Cliffs

UT-S-218: CSU – White-Tailed Prairie Dog

UT-S-230: TL – Crucial Deer and Elk Winter Range

UT-S-231: CSU – Crucial Deer Winter Range

UT-S-261: TL – Raptor Buffers

UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat

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

UT-LN-40: Golden Eagle Habitat

UT-LN-44: Raptors

UT-LN-45: Migratory Bird

UT-LN-49: Utah Sensitive Species

*UT-LN-50: Habitat Restoration

UT-LN-51: Special Status Plants: Not Federally Listed

UT-LN-53: Riparian Areas

UT-LN-60: Steep Slopes

UT-LN-61: Severe Soil Erosion & Steep Slopes

UT-LN-68: Notification & Consultation Regarding Cultural Resources

*UT-LN-72: High Potential Paleontological Resources

UT-LN-83: Site Right-of-Way

UT-LN-90: Graham Beardtongue (*penstemon grahamii*)

UT-LN-96: Air Quality Mitigation Measures

UT-LN-99: Regional Ozone Formation Controls

UT-LN-102: Air Quality Analysis

UT-LN-128: Floodplain Management

*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain

UT-LN-132: Greater Sage-Grouse – Required Design Features

*UT-LN-133: Greater Sage-Grouse - Buffer

UT-LN-134: Graham Beardtongue (*penstemon grahamii*) and White River Beardtongue
(*penstemon scariosus* var. *albifluvis*) Conservation Areas

*UT-LN-156: Pollinators and Pollinator Habitat

T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin

T&E-05: Listed Plant Species

T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU93910

(UT1218 – 162)

T. 13 S., R. 23 E., SLM

Sec. 6: Lots 2-5, SENW;

Sec. 18: Lot 6, NESESESW, S2SESESW, NESWNWSE, S2SWNWSE,
SENWSE, SWSE;

Sec. 19: SWNE.

301.93 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%

UT-S-99: CSU – Fragile Soils/Slopes

UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)

UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-157: NSO/CSU/TL – Visual Resources

UT-S-218: CSU – White-Tailed Prairie Dog

UT-S-230: TL – Crucial Deer and Elk Winter Range

UT-S-231: CSU – Crucial Deer Winter Range

UT-S-261: TL – Raptor Buffers

UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat

UT-LN-11: Crucial Elk Calving and Deer Fawning Habitat

UT-LN-16: Pronghorn Fawning Habitat

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

UT-LN-40: Golden Eagle Habitat

UT-LN-44: Raptors

UT-LN-45: Migratory Bird

UT-LN-49: Utah Sensitive Species

UT-LN-51: Special Status Plants: Not Federally Listed

UT-LN-53: Riparian Areas

UT-LN-60: Steep Slopes

UT-LN-61: Severe Soil Erosion & Steep Slopes

UT-LN-68: Notification & Consultation Regarding Cultural Resources

UT-LN-69: High Potential for Cultural Resources

*UT-LN-72: High Potential Paleontological Resources

UT-LN-83: Site Right-of-Way
UT-LN-90: Graham Beardtongue (*penstemon grahamii*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-120: Abandoned Mine Workings
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
UT-LN-134: Graham Beardtongue (*penstemon grahamii*) and White River Beardtongue (*penstemon scariosus* var. *albifluvis*) Conservation Areas
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU93911

(UT1218 – 165)
T. 13 S., R. 23 E., SLM
Secs. 27, 34 and 35: All.
1,920.00 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-231: CSU – Crucial Deer Winter Range
UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat
UT-S-251: TL – Deer Migration Corridor (Monument and McCook Ridges)
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
UT-LN-11: Crucial Elk Calving and Deer Fawning Habitat
UT-LN-16: Pronghorn Fawning Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors

UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-69: High Potential for Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
*UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)
*T&E-25: Mexican Spotted Owl
*T&E-27: Western Yellow-billed Cuckoo

UTU93913

(UT1218 – 169)
T. 15 S., R. 23 E., SLM
Secs. 1 and 11: All;
Sec. 14: W2;
Sec. 15: All.
2,241.24 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat
UT-S-251: TL – Deer Migration Corridor (Monument and McCook Ridges)

UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
UT-LN-11: Crucial Elk Calving and Deer Fawning Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-57: Public Water Reserve
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-70: High Potential for Cultural Resource Occurrence
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
*UT-LN-96: Air Quality Mitigation Measures
*UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-120: Abandoned Mine Workings
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)
*T&E-25: Mexican Spotted Owl

UTU93914

(UT1218 – 170)
T. 8 S., R. 24 E., SLM
Sec. 14: NESE;
Sec. 23: N2NE, N2NW;
Sec. 24: N2NW.

280.00 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%

UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-261: TL – Raptor Buffers
UT-S-299: CSU/TL – Black-Footed Ferret – Primary Management Zone Area
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
UT-LN-16: Pronghorn Fawning Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-02: Black-Footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU93915

(UT1218 – 171)
T. 8 S., R. 24 E., SLM
 Sec. 25: W2;
 Sec. 34: NE;
 Sec. 35: N2;
 Sec. 36: All.
1,440.00 Acres
Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%

UT-S-99: CSU – Fragile Soils/Slopes

UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)

UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-157: NSO/CSU/TL – Visual Resources

UT-S-218: CSU – White-Tailed Prairie Dog

UT-S-261: TL – Raptor Buffers

UT-S-299: CSU/TL – Black-Footed Ferret – Primary Management Zone Area

UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat

UT-LN-16: Pronghorn Fawning Habitat

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

UT-LN-40: Golden Eagle Habitat

UT-LN-44: Raptors

UT-LN-45: Migratory Bird

UT-LN-49: Utah Sensitive Species

*UT-LN-51: Special Status Plants: Not Federally Listed

UT-LN-53: Riparian Areas

UT-LN-60: Steep Slopes

UT-LN-61: Severe Soil Erosion & Steep Slopes

UT-LN-68: Notification & Consultation Regarding Cultural Resources

*UT-LN-72: High Potential Paleontological Resources

UT-LN-83: Site Right-of-Way

UT-LN-96: Air Quality Mitigation Measures

UT-LN-99: Regional Ozone Formation Controls

UT-LN-102: Air Quality Analysis

UT-LN-128: Floodplain Management

*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain

UT-LN-132: Greater Sage-Grouse – Required Design Features

*UT-LN-133: Greater Sage-Grouse - Buffer

*UT-LN-156: Pollinators and Pollinator Habitat

T&E-02: Black-Footed Ferret

T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin

T&E-05: Listed Plant Species

T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

*T&E-27: Western Yellow-billed Cuckoo

UTU93916

(UT1218 – 172)

T. 9 S., R. 24 E., SLM

Sec. 1: Lots 1-5, S2NE, S2NW, N2SW, SESW, N2SE, SWSE;

Sec. 11: All;
Sec. 12: Lot 7, SWNW.
1,293.32 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-261: TL – Raptor Buffers
UT-S-299: CSU/TL – Black-Footed Ferret – Primary Management Zone Area
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-16: Pronghorn Fawning Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
*UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-120: Abandoned Mine Workings
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-02: Black-Footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)
*T&E-27: Western Yellow-billed Cuckoo

UTU93917

(UT1218 – 173)

T. 9 S., R. 24 E., SLM

Sec. 3: Lots 1-5, 10-13, SWNW, SW, W2SE, SESE;

Sec. 9: NWNE, W2, SE;

Sec. 10: All.

1,766.53 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%

UT-S-99: CSU – Fragile Soils/Slopes

UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)

UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-157: NSO/CSU/TL – Visual Resources

UT-S-218: CSU – White-Tailed Prairie Dog

UT-S-261: TL – Raptor Buffers

UT-S-299: CSU/TL – Black-Footed Ferret – Primary Management Zone Area

UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat

UT-LN-16: Pronghorn Fawning Habitat

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

UT-LN-40: Golden Eagle Habitat

UT-LN-44: Raptors

UT-LN-45: Migratory Bird

UT-LN-49: Utah Sensitive Species

*UT-LN-51: Special Status Plants: Not Federally Listed

UT-LN-53: Riparian Areas

UT-LN-60: Steep Slopes

UT-LN-61: Severe Soil Erosion & Steep Slopes

UT-LN-68: Notification & Consultation Regarding Cultural Resources

*UT-LN-72: High Potential Paleontological Resources

UT-LN-83: Site Right-of-Way

*UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)

UT-LN-96: Air Quality Mitigation Measures

UT-LN-99: Regional Ozone Formation Controls

UT-LN-102: Air Quality Analysis

UT-LN-120: Abandoned Mine Workings

UT-LN-128: Floodplain Management

*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain

UT-LN-132: Greater Sage-Grouse – Required Design Features

*UT-LN-133: Greater Sage-Grouse - Buffer

*UT-LN-156: Pollinators and Pollinator Habitat

T&E-02: Black-Footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)
*T&E-27: Western Yellow-billed Cuckoo

UTU93918

(UT1218 – 175)

T. 9 S., R. 24 E., SLM

Sec. 14: NE, S2NW, S2;

Sec. 23: Lots 1-11, N2NE, W2SW, SESW, SWSE;

Sec. 24: Lots 2, 3, 9, N2.

1,500.45 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%

UT-S-99: CSU – Fragile Soils/Slopes

UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)

UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-157: NSO/CSU/TL – Visual Resources

UT-S-218: CSU – White-Tailed Prairie Dog

UT-S-230: TL – Crucial Deer and Elk Winter Range

UT-S-231: CSU – Crucial Deer Winter Range

UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat

UT-S-261: TL – Raptor Buffers

UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat

UT-LN-11: Crucial Elk Calving and Deer Fawning Habitat

UT-LN-16: Pronghorn Fawning Habitat

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

UT-LN-40: Golden Eagle Habitat

UT-LN-44: Raptors

UT-LN-45: Migratory Bird

UT-LN-49: Utah Sensitive Species

*UT-LN-51: Special Status Plants: Not Federally Listed

UT-LN-53: Riparian Areas

UT-LN-60: Steep Slopes

UT-LN-61: Severe Soil Erosion & Steep Slopes

UT-LN-68: Notification & Consultation Regarding Cultural Resources

UT-LN-69: High Potential for Cultural Resources

*UT-LN-72: High Potential Paleontological Resources

UT-LN-83: Site Right-of-Way

UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-120: Abandoned Mine Workings
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-02: Black-Footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU93919

(UT1218 – 176)

T. 9 S., R. 24 E., SLM

Sec. 21: All;

Sec. 22: S2NW, W2SW, SESW, SE;

Sec. 28: N2, SW, W2SE, SESE.

1,600.00 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-16: Pronghorn Fawning Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources

UT-LN-69: High Potential for Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-120: Abandoned Mine Workings
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-02: Black-Footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU93920

(UT1218 – 177)
T. 9 S., R. 24 E., SLM
Secs. 26 and 35: All.
1,279.95 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-120: NSO – White River Corridor
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-231: CSU – Crucial Deer Winter Range
UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
UT-LN-11: Crucial Elk Calving and Deer Fawning Habitat
UT-LN-16: Pronghorn Fawning Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors

UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-50: Habitat Restoration
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-56: Drinking Water Source Protection Zone
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
*UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-120: Abandoned Mine Workings
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-02: Black-Footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)
*T&E-27: Western Yellow-billed Cuckoo

UTU93921

(UT1218 – 178)

T. 10 S., R. 24 E., SLM

Sec. 1: E2SESWSW;

Sec. 2: Lot 7;

Sec. 11: SESE;

Sec. 12: S2SW.

164.41 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%

UT-S-99: CSU – Fragile Soils/Slopes

UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)

UT-S-120: NSO – White River Corridor

UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-157: NSO/CSU/TL – Visual Resources

UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-231: CSU – Crucial Deer Winter Range
UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
UT-LN-11: Crucial Elk Calving and Deer Fawning Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-50: Habitat Restoration
UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-56: Drinking Water Source Protection Zone
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-90: Graham Beardtongue (*penstemon grahamii*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-113: Western Yellow-Billed Cuckoo
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
UT-LN-134: Graham Beardtongue (*penstemon grahamii*) and White River Beardtongue (*penstemon scariosus* var. *albifluvis*) Conservation Areas
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)
*T&E-27: Western Yellow-billed Cuckoo

UTU93922

(UT1218 – 179)
T. 10 S., R. 24 E., SLM
Sec. 6: Lots 1-7;
Sec. 7: Lots 1-3, NE, E2NW, NESW, SESE;

Sec. 8: N2, NESW, SE;
Sec. 9: All.
1,875.02 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-120: NSO – White River Corridor
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-231: CSU – Crucial Deer Winter Range
UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
UT-LN-11: Crucial Elk Calving and Deer Fawning Habitat
UT-LN-16: Pronghorn Fawning Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-50: Habitat Restoration
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-56: Drinking Water Source Protection Zone
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-90: Graham Beardtongue (*penstemon grahamii*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-113: Western Yellow-Billed Cuckoo
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer

*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)
*T&E-27: Western Yellow-billed Cuckoo

UTU93923

(UT1218 – 197)

T. 14 S., R. 24 E., SLM

Sec. 17: NESE;

Sec. 20: SWNE, SW, N2SE, SWSE;

Sec. 21: E2SW, SE;

Sec. 28: Lots 1-5, E2, NENW, NESW, S2SW;

Sec. 33: All.

1,831.84 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%

UT-S-99: CSU – Fragile Soils/Slopes

UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)

UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-157: NSO/CSU/TL – Visual Resources

UT-S-218: CSU – White-Tailed Prairie Dog

UT-S-230: TL – Crucial Deer and Elk Winter Range

UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat

UT-S-251: TL – Deer Migration Corridor (Monument and McCook Ridges)

UT-S-261: TL – Raptor Buffers

UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat

UT-LN-11: Crucial Elk Calving and Deer Fawning Habitat

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

UT-LN-40: Golden Eagle Habitat

UT-LN-44: Raptors

UT-LN-45: Migratory Bird

UT-LN-49: Utah Sensitive Species

*UT-LN-51: Special Status Plants: Not Federally Listed

UT-LN-53: Riparian Areas

UT-LN-60: Steep Slopes

UT-LN-61: Severe Soil Erosion & Steep Slopes

UT-LN-68: Notification & Consultation Regarding Cultural Resources

*UT-LN-72: High Potential Paleontological Resources

UT-LN-83: Site Right-of-Way

*UT-LN-96: Air Quality Mitigation Measures
*UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-106: Special Recreation Management Area
UT-LN-120: Abandoned Mine Workings
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-06: Mexican Spotted Owl
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)
*T&E-25: Mexican Spotted Owl
*T&E-27: Western Yellow-billed Cuckoo

UTU93924

(UT1218 – 198)

T. 14 S., R. 24 E., SLM

Secs. 26, 27, 34 and 35: All.

2,560.00 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-11: Crucial Elk Calving and Deer Fawning Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes

UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
*UT-LN-96: Air Quality Mitigation Measures
*UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-120: Abandoned Mine Workings
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-06: Mexican Spotted Owl
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)
*T&E-25: Mexican Spotted Owl

UTU93925

(UT1218 – 199)

T. 8 S., R. 25 E., SLM

Secs. 1, 3 and 10: All;

Sec. 11: N2, SW;

Sec. 12: All;

Sec. 13: Lots 1, 2, W2NW.

2,418.33 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%

UT-S-99: CSU – Fragile Soils/Slopes

UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)

UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-157: NSO/CSU/TL – Visual Resources

UT-S-218: CSU – White-Tailed Prairie Dog

UT-S-261: TL – Raptor Buffers

UT-S-299: CSU/TL – Black-Footed Ferret – Primary Management Zone Area

UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-16: Pronghorn Fawning Habitat

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

UT-LN-40: Golden Eagle Habitat

UT-LN-44: Raptors

UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-02: Black-Footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU93926

(UT1218 – 200)

T. 8 S., R. 25 E., SLM

Sec. 4: Lots 1-4, S2NE, S2NW, SE;

Sec. 7: SE;

Sec. 8: All;

Sec. 9: NE, S2NW, S2.

1,840.64 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%

UT-S-99: CSU – Fragile Soils/Slopes

UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)

UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-157: NSO/CSU/TL – Visual Resources

UT-S-218: CSU – White-Tailed Prairie Dog

UT-S-261: TL – Raptor Buffers

UT-S-299: CSU/TL – Black-Footed Ferret – Primary Management Zone Area

UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-16: Pronghorn Fawning Habitat

UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-02: Black-Footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU93927

(UT1218 – 201)

T. 8 S., R. 25 E., SLM

Sec. 17: All;

Sec. 18: N2;

Sec. 19: All;

Sec. 20: N2, SW, W2SE, SESE;

Sec. 21: SWNW.

2,240.00 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%

UT-S-99: CSU – Fragile Soils/Slopes

UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)

UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-157: NSO/CSU/TL – Visual Resources

UT-S-218: CSU – White-Tailed Prairie Dog

UT-S-230: TL – Crucial Deer and Elk Winter Range

UT-S-231: CSU – Crucial Deer Winter Range
UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat
UT-S-261: TL – Raptor Buffers
UT-S-299: CSU/TL – Black-Footed Ferret – Primary Management Zone Area
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-16: Pronghorn Fawning Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-02: Black-Footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU93928

(UT1218 – 202)

T. 8 S., R. 25 E., SLM

Sec. 21: E2NE;

Sec. 22: E2, NESW;

Secs. 23, 24 and 25: All;

Sec. 26: N2, E2SW, SE;

Sec. 27: E2NE.

2,263.02 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-261: TL – Raptor Buffers
UT-S-299: CSU/TL – Black-Footed Ferret – Primary Management Zone Area
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-16: Pronghorn Fawning Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-02: Black-Footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU93929

(UT1218 – 203)
T. 8 S., R. 25 E., SLM
Sec. 27: SW;
Secs. 33, 34 and 35: All.
2,080.00 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-261: TL – Raptor Buffers
UT-S-299: CSU/TL – Black-Footed Ferret – Primary Management Zone Area
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-16: Pronghorn Fawning Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-120: Abandoned Mine Workings
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-02: Black-Footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU93930

(UT1218 – 204)
T. 8 S., R. 25 E., SLM
 Sec. 29: NW;
 Secs. 30 and 31: All.
1,440.00 Acres
Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%

UT-S-99: CSU – Fragile Soils/Slopes

UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)

UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-157: NSO/CSU/TL – Visual Resources

UT-S-218: CSU – White-Tailed Prairie Dog

UT-S-261: TL – Raptor Buffers

UT-S-299: CSU/TL – Black-Footed Ferret – Primary Management Zone Area

UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-16: Pronghorn Fawning Habitat

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

UT-LN-40: Golden Eagle Habitat

UT-LN-44: Raptors

UT-LN-45: Migratory Bird

UT-LN-49: Utah Sensitive Species

*UT-LN-51: Special Status Plants: Not Federally Listed

UT-LN-53: Riparian Areas

UT-LN-60: Steep Slopes

UT-LN-61: Severe Soil Erosion & Steep Slopes

UT-LN-68: Notification & Consultation Regarding Cultural Resources

*UT-LN-72: High Potential Paleontological Resources

UT-LN-83: Site Right-of-Way

UT-LN-96: Air Quality Mitigation Measures

UT-LN-99: Regional Ozone Formation Controls

UT-LN-102: Air Quality Analysis

UT-LN-128: Floodplain Management

*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain

UT-LN-132: Greater Sage-Grouse – Required Design Features

*UT-LN-133: Greater Sage-Grouse – Buffer

*UT-LN-156: Pollinators and Pollinator Habitat

T&E-02: Black-Footed Ferret

T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin

T&E-05: Listed Plant Species

T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU93931

(UT1218 – 205)

T. 9 S., R. 25 E., SLM

Secs. 1 and 2: All;

Sec. 11: N2NE, N2NW;

Sec. 12: Lot 1, NWNW.

1,123.88 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-261: TL – Raptor Buffers
UT-S-299: CSU/TL – Black-Footed Ferret – Primary Management Zone Area
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-16: Pronghorn Fawning Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-02: Black-Footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU93933

(UT1218 – 207)
T. 9 S., R. 25 E., SLM
Secs. 5 and 6: All;

Sec. 7: Lots 1, 2, 5, 6, NE, N2NW;
Sec. 8: N2NE, N2NW.
1,808.58 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-261: TL – Raptor Buffers
UT-S-299: CSU/TL – Black-Footed Ferret – Primary Management Zone Area
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-16: Pronghorn Fawning Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-120: Abandoned Mine Workings
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-02: Black-Footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU93934

(UT1218 – 208)

T. 9 S., R. 25 E., SLM
Sec. 7: Lots 3, 4, 7, 8, S2SW;
Sec. 18: All;
Sec. 19: N2.

1,159.20 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-16: Pronghorn Fawning Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
*UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-120: Abandoned Mine Workings
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-02: Black-Footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU93935

(UT1218 – 211)

T. 10 S., R. 25 E., SLM

Sec. 4: Lots 3, 4, S2NW, SW;

Sec. 5: Lots 1, 2, S2NE, S2.

779.41 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%

UT-S-99: CSU – Fragile Soils/Slopes

UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)

*UT-S-120: NSO – White River Corridor

UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-157: NSO/CSU/TL – Visual Resources

UT-S-159: CSU – Visual Resources – VRM II

UT-S-218: CSU – White-Tailed Prairie Dog

UT-S-230: TL – Crucial Deer and Elk Winter Range

UT-S-231: CSU – Crucial Deer Winter Range

UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat

UT-S-261: TL – Raptor Buffers

UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat

UT-LN-11: Crucial Elk Calving and Deer Fawning Habitat

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

UT-LN-40: Golden Eagle Habitat

UT-LN-44: Raptors

UT-LN-45: Migratory Bird

UT-LN-49: Utah Sensitive Species

*UT-LN-50: Habitat Restoration

UT-LN-51: Special Status Plants: Not Federally Listed

UT-LN-53: Riparian Areas

UT-LN-60: Steep Slopes

UT-LN-61: Severe Soil Erosion & Steep Slopes

UT-LN-68: Notification & Consultation Regarding Cultural Resources

*UT-LN-72: High Potential Paleontological Resources

UT-LN-83: Site Right-of-Way

UT-LN-90: Graham Beardtongue (*penstemon grahamii*)

UT-LN-96: Air Quality Mitigation Measures

UT-LN-99: Regional Ozone Formation Controls

UT-LN-102: Air Quality Analysis

UT-LN-113: Western Yellow-Billed Cuckoo

UT-LN-128: Floodplain Management

*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
UT-LN-134: Graham Beardtongue (*penstemon grahamii*) and White River Beardtongue
(*penstemon scariosus* var. *albifluvis*) Conservation Areas
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)
*T&E-27: Western Yellow-billed Cuckoo

UTU93936

(UT1218 – 212)
T. 10 S., R. 25 E., SLM
Secs. 19, 30 and 31: All.
1,920.00 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-230: TL – Crucial Deer and Elk Winter Range
UT-S-231: CSU – Crucial Deer Winter Range
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
*UT-LN-90: Graham's Beardtongue (*penstemon grahamii*)

UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU93937

(UT1218 – 213)

T. 10 S., R. 25 E., SLM

Sec. 20: S2;

Sec. 21: W2SW;

Sec. 28: W2;

Sec. 29: All.

1,360.00 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%

UT-S-99: CSU – Fragile Soils/Slopes

UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)

UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-157: NSO/CSU/TL – Visual Resources

UT-S-218: CSU – White-Tailed Prairie Dog

UT-S-230: TL – Crucial Deer and Elk Winter Range

UT-S-231: CSU – Crucial Deer Winter Range

UT-S-261: TL – Raptor Buffers

UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat

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

UT-LN-40: Golden Eagle Habitat

UT-LN-44: Raptors

UT-LN-45: Migratory Bird

UT-LN-49: Utah Sensitive Species

UT-LN-51: Special Status Plants: Not Federally Listed

UT-LN-53: Riparian Areas

UT-LN-60: Steep Slopes

UT-LN-61: Severe Soil Erosion & Steep Slopes

UT-LN-68: Notification & Consultation Regarding Cultural Resources

*UT-LN-72: High Potential Paleontological Resources

UT-LN-83: Site Right-of-Way

UT-LN-90: Graham Beardtongue (*penstemon grahamii*)

UT-LN-96: Air Quality Mitigation Measures

UT-LN-99: Regional Ozone Formation Controls

UT-LN-102: Air Quality Analysis

UT-LN-120: Abandoned Mine Workings

UT-LN-128: Floodplain Management

*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain

UT-LN-132: Greater Sage-Grouse – Required Design Features

*UT-LN-133: Greater Sage-Grouse - Buffer

UT-LN-134: Graham Beardtongue (*penstemon grahamii*) and White River Beardtongue
(*penstemon scariosus* var. *albifluvis*) Conservation Areas

*UT-LN-156: Pollinators and Pollinator Habitat

T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin

T&E-05: Listed Plant Species

T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU93938

(UT1218 – 214)

T. 10 S., R. 25 E., SLM

Sec. 25: Lots 1, 2, W2NW;

Secs. 33 and 34: All;

Sec. 35: E2NE, SW.

1,670.67 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%

UT-S-99: CSU – Fragile Soils/Slopes

UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)

UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-157: NSO/CSU/TL – Visual Resources

UT-S-218: CSU – White-Tailed Prairie Dog

UT-S-230: TL – Crucial Deer and Elk Winter Range

UT-S-231: CSU – Crucial Deer Winter Range

UT-S-261: TL – Raptor Buffers

UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat

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

UT-LN-40: Golden Eagle Habitat

UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-90: Graham Beardtongue (*penstemon grahamii*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - BufferUT-LN-134: Graham Beardtongue (*penstemon grahamii*) and White River Beardtongue (*penstemon scariosus* var. *albifluvis*) Conservation Areas
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-06: Mexican Spotted Owl
*T&E-25: Mexican Spotted Owl

UTU93939

(UT1218 – 217)

T. 11 S., R. 25 E., SLM

Sec. 13: All;

Sec. 23: E2, S2SW;

Sec. 24: All.

2,152.83 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%

UT-S-99: CSU – Fragile Soils/Slopes

UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)

UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-157: NSO/CSU/TL – Visual Resources

UT-S-218: CSU – White-Tailed Prairie Dog

UT-S-230: TL – Crucial Deer and Elk Winter Range

UT-S-231: CSU – Crucial Deer Winter Range

UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-90: Graham Beardtongue (*penstemon grahamii*)
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
UT-LN-134: Graham Beardtongue (*penstemon grahamii*) and White River Beardtongue
(*penstemon scariosus* var. *albifluvis*) Conservation Areas
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)
*T&E-27: Western Yellow-billed Cuckoo

UTU93946

(UT1218 – 260)
T. 6 S., R. 19 E., SLM
 Sec. 4: Lot 8, Tract 39 and Tract 40;
 Sec. 5: All;
 Sec. 9: Lots 5-7.
250.58 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes

UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU93947

(UT1218 – 261)

T. 6 S., R. 19 E., SLM

Sec. 11: Lots 8-11;

Sec. 12: Lots 1-9, N2NE, N2NW, S2SE, excepting ROW UTSL044891;

Sec. 13: N2, SE excepting ROW UTSL044891;

Sec. 14: Lot 1, NENW;

Sec. 15: Lots 3, 4, SENW, SESW, NESE;

Sec. 24: N2NE;

Tract 45: that portion within Sec. 11;

Tract 46: that portion within Sec. 12.

1,399.00 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites
UT-S-354: TL – Greater Sage-Grouse Brood-Rearing
UT-S-355: TL – Greater Sage-Grouse Winter Habitat

LEASE NOTICES

UT-LN-16: Pronghorn Fawning Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-128: Floodplain Management
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-133A: Greater Sage-Grouse – Buffer
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU93948

(UT1218 – 262)
T. 6 S., R. 19 E., SLM
Sec. 22: Tract 50.
158.25 Acres
Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

*UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-218: CSU – White-Tailed Prairie Dog

UT-S-261: TL – Raptor Buffers

LEASE NOTICES

UT-LN-16: Pronghorn Fawning Habitat

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

UT-LN-40: Golden Eagle Habitat

UT-LN-44: Raptors

UT-LN-45: Migratory Bird

UT-LN-49: Utah Sensitive Species

UT-LN-51: Special Status Plants: Not Federally Listed

*UT-LN-53: Riparian Areas

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: Floodplain Management

*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain

UT-LN-132: Greater Sage-Grouse – Required Design Features

*UT-LN-133: Greater Sage-Grouse - Buffer

*UT-LN-156: Pollinators and Pollinator Habitat

T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin

T&E-05: Listed Plant Species

T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU93959

(UT1218 – 295)

T. 15 S., R. 23 E., SLM

Sec. 20: All;

Sec. 22: N2, SE;

Sec. 23: W2.

1,440.00 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%

UT-S-99: CSU – Fragile Soils/Slopes

UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)

UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-175: CSU/TL – Cultural Resources – Upper Willow Creek Aare of the Book Cliffs
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat
UT-S-251: TL – Deer Migration Corridor (Monument and McCook Ridges)
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-11: Crucial Elk Calving and Deer Fawning Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-70: High Potential for Cultural Resource Occurrence
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
*UT-LN-96: Air Quality Mitigation Measures
*UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-120: Abandoned Mine Workings
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)
*T&E-25: Mexican Spotted Owl

UTU93962

(UT1218 – 305)
T. 8 S., R. 24 E., SLM
Sec. 13: N2SE.
80.00 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-159: CSU – Visual Resources – VRM II
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-261: TL – Raptor Buffers
UT-S-299: CSU/TL – Black-Footed Ferret – Primary Management Zone Area
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-16: Pronghorn Fawning Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
*UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-02: Black-Footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU93963

(UT1218 – 309)
T. 9 S., R. 24 E., SLM
Sec. 14: N2NW.
80.00 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-16: Pronghorn Fawning Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-02: Black-Footed Ferret
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU93965

(UT1218 – 319)
T. 15 S., R. 24 E., SLM
Sec. 3: Lots 1-6, S2NE, S2NW, N2SW, SE.
629.51 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-11: Crucial Elk Calving and Deer Fawning Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
*UT-LN-96: Air Quality Mitigation Measures
*UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-120: Abandoned Mine Workings
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-06: Mexican Spotted Owl
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)
*T&E-25: Mexican Spotted Owl

UTU93966

(UT1218 – 320)
T. 15 S., R. 24 E., SLM
Sec. 18: Lots 3, 4, NESW, SE.
279.72 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%
UT-S-99: CSU – Fragile Soils/Slopes
UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)
UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves
UT-S-157: NSO/CSU/TL – Visual Resources
UT-S-218: CSU – White-Tailed Prairie Dog
UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat
UT-S-261: TL – Raptor Buffers
UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-11: Crucial Elk Calving and Deer Fawning Habitat
UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
UT-LN-60: Steep Slopes
UT-LN-61: Severe Soil Erosion & Steep Slopes
UT-LN-68: Notification & Consultation Regarding Cultural Resources
*UT-LN-72: High Potential Paleontological Resources
UT-LN-83: Site Right-of-Way
*UT-LN-96: Air Quality Mitigation Measures
*UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-120: Abandoned Mine Workings
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)
*T&E-25: Mexican Spotted Owl

UTU93968

(UT1218 – 337)

T. 8 S., R. 25 E., SLM

Sec. 21: SWNE, N2NW, SENW, S2;

Sec. 22: W2SW, SESW;

Sec. 26: W2SW;

Sec. 27: W2NE, NW, SE;
Sec. 28: All;
Sec. 29: NE, S2.

2,200.00 Acres

Uintah County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

UT-S-99: CSU – Fragile Soils/Slopes

UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)

UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-157: NSO/CSU/TL – Visual Resources

UT-S-218: CSU – White-Tailed Prairie Dog

UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat

UT-S-261: TL – Raptor Buffers

UT-S-299: CSU/TL – Black-Footed Ferret – Primary Management Zone Area

UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-16: Pronghorn Fawning Habitat

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

UT-LN-40: Golden Eagle Habitat

UT-LN-44: Raptors

UT-LN-45: Migratory Bird

UT-LN-49: Utah Sensitive Species

*UT-LN-51: Special Status Plants: Not Federally Listed

UT-LN-53: Riparian Areas

UT-LN-60: Steep Slopes

UT-LN-68: Notification & Consultation Regarding Cultural Resources

*UT-LN-72: High Potential Paleontological Resources

UT-LN-83: Site Right-of-Way

UT-LN-96: Air Quality Mitigation Measures

UT-LN-99: Regional Ozone Formation Controls

UT-LN-102: Air Quality Analysis

UT-LN-128: Floodplain Management

*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain

UT-LN-132: Greater Sage-Grouse – Required Design Features

*UT-LN-133: Greater Sage-Grouse - Buffer

*UT-LN-156: Pollinators and Pollinator Habitat

T&E-02: Black-Footed Ferret

T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin

T&E-05: Listed Plant Species

T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

UTU93979

(UT1218 – 381)

T. 3 N., R. 17 E., SLM
Sec. 20: N2SW, SE;
Sec. 21: S2;
Sec. 29: SENW, N2SW, SWSW.

720.00 Acres
Summit County, Utah
Salt Lake Field Office

STIPULATIONS

UT-S-01: Air Quality
*UT-S-129: CSU – Stream, Ponds or Live Watercourse
*UT-S-132: NSO – Live Water
*UT-S-133a: CSU – Live Water
UT-S-208: TL – Greater Sage-Grouse Breeding and Nesting Habitat
UT-S-219: CSU – White-Tailed Prairie Dog Towns
UT-S-235: TL – Mule Deer Winter Range
UT-S-281: CSU/TL – Bald Eagle Habitat/Nesting Areas
UT-S-301: TL – Seasonal Wildlife Habitat
UT-S-420: CSU/TL – Raptor Eyries

LEASE NOTICES

UT-LN-14: Pronghorn Fawning Habitat
UT-LN-24: Crucial Moose Winter Habitat
UT-LN-37: Bald Eagle Habitat
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
UT-LN-53: Riparian Areas
*UT-LN-72: High Potential Paleontological Resources
*UT-LN-96: Air Quality Mitigation Measures
*UT-LN-99: Regional Ozone Formation Controls
*UT-LN-101: Air Quality
UT-LN-102: Air Quality Analysis
UT-LN-104: Burrowing Owl Habitat
UT-LN-107: Bald Eagle
UT-LN-113: Western Yellow-Billed Cuckoo
UT-LN-120: Abandoned Mine Workings
UT-LN-122: Colorado or Bonneville Cutthroat Trout Habitat
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
*T&E-05: Listed Plant Species
T&E-10: Canada Lynx
*T&E-36: North American wolverine

UTU93980

(UT1218 – 382)

T. 3 N., R. 17 E., SLM

Sec. 23: E2SE;

Sec. 24: S2;

Sec. 25: W2NE, W2, W2SE;

Sec. 26: N2NE, SENE, SWNW, E2SE;

Sec. 27: SENE

Sec. 34: that portion lying easterly of the Summit & Daggett County line;

Sec. 35: E2NE, S2SW, N2SE, SWSE.

1,802.19 Acres

Daggett County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

*UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-174: NSO/CSU/TL – Cultural Resources – Uinta Foothills Area

UT-S-218: CSU – White-Tailed Prairie Dog

UT-S-230: TL – Crucial Deer and Elk Winter Range

UT-S-231: CSU – Crucial Deer Winter Range

UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat

UT-S-261: TL – Raptor Buffers

UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat

UT-LN-05: Crucial Moose Calving Habitat

UT-LN-11: Crucial Elk Calving and Deer Fawning Habitat

UT-LN-16: Pronghorn Fawning Habitat

UT-LN-24: Crucial Moose Winter Habitat

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

UT-LN-40: Golden Eagle Habitat

UT-LN-44: Raptors

UT-LN-45: Migratory Bird

UT-LN-49: Utah Sensitive Species

*UT-LN-51: Special Status Plants: Not Federally Listed

*UT-LN-53: Riparian Areas

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-120: Abandoned Mine Workings

UT-LN-128: Floodplain Management

*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain

UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-10: Canada Lynx
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)
*T&E-36: North American wolverine

UTU93981

(UT1218 – 383)

T. 3 N., R. 17 E., SLM

Sec. 33: All;

Sec. 34: that portion lying westerly of the Summit & Daggett County line.

917.81 Acres

Summit County, Utah

Salt Lake Field Office

STIPULATIONS

UT-S-01: Air Quality

*UT-S-129: CSU – Stream, Ponds or Live Watercourse

*UT-S-132: NSO – Live Water

*UT-S-133a: CSU – Live Water

UT-S-208: TL – Greater Sage-Grouse Breeding and Nesting Habitat

UT-S-219: CSU – White-Tailed Prairie Dog Towns

UT-S-235: TL – Mule Deer Winter Range

UT-S-281: CSU/TL – Bald Eagle Habitat/Nesting Areas

UT-S-301: TL – Seasonal Wildlife Habitat

UT-S-420: CSU/TL – Raptor Eyries

LEASE NOTICES

UT-LN-09: Crucial Elk Calving and Deer Fawning

UT-LN-14: Pronghorn Fawning Habitat

UT-LN-20: Rocky Mountain Bighorn Sheep

UT-LN-24: Crucial Moose Winter Habitat

UT-LN-37: Bald Eagle Habitat

UT-LN-40: Golden Eagle Habitat

UT-LN-44: Raptors

UT-LN-45: Migratory Bird

UT-LN-49: Utah Sensitive Species

*UT-LN-51: Special Status Plants: Not Federally Listed

UT-LN-53: Riparian Areas

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-101: Air Quality

UT-LN-102: Air Quality Analysis
UT-LN-104: Burrowing Owl Habitat
UT-LN-107: Bald Eagle
UT-LN-113: Western Yellow-Billed Cuckoo
UT-LN-120: Abandoned Mine Workings
UT-LN-122: Colorado or Bonneville Cutthroat Trout Habitat
UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
*T&E-05: Listed Plant Species
T&E-10: Canada Lynx
*T&E-36: North American wolverine

UTU93982

(UT1218 – 384)

T. 3 N., R. 18 E., SLM

Sec. 19: Lot 4;

Sec. 28: W2SW;

Sec. 29: SE;

Sec. 30: Lot 1;

Sec. 31: Lots 1-4, N2NE, SENE, NESW, N2SE, SESE;

Sec. 33: N2;

Sec. 34: W2NW.

1,147.29 Acres

Daggett County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

*UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-174: NSO/CSU/TL – Cultural Resources – Uinta Foothills Area

UT-S-218: CSU – White-Tailed Prairie Dog

UT-S-230: TL – Crucial Deer and Elk Winter Range

UT-S-231: CSU – Crucial Deer Winter Range

UT-S-261: TL – Raptor Buffers

UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat

UT-LN-05: Crucial Moose Calving Habitat

UT-LN-16: Pronghorn Fawning Habitat

UT-LN-24: Crucial Moose Winter Habitat

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

UT-LN-40: Golden Eagle Habitat

UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-53: Riparian Areas
*UT-LN-56: Drinking Water Source Protection Zone
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-120: Abandoned Mine Workings
*UT-LN-128: Floodplain Management
*UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
UT-LN-132: Greater Sage-Grouse – Required Design Features
*UT-LN-133: Greater Sage-Grouse - Buffer
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
T&E-05: Listed Plant Species
T&E-10: Canada Lynx
T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)
*T&E-36: North American wolverine

UTU94003

(UT0319 – 405)
T. 7 S., R. 20 E., SLM
Sec. 27: E2NW.
80.00 Acres
Uintah County, Utah
Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality
UT-S-261: TL – Raptor Buffers

LEASE NOTICES

UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-49: Utah Sensitive Species
*UT-LN-51: Special Status Plants: Not Federally Listed
*UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-161: Productive Well on Lease
*UT-LN-156: Pollinators and Pollinator Habitat
T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin

*T&E-05: Listed Plant Species

*T&E-27: Western Yellow-billed Cuckoo

UTU94135

(UT1218 – 087)

T. 11 S., R. 16 E., SLM

Sec. 8: NE;

Sec. 9: NE;

Sec. 11: N2;

Sec. 12: E2;

Sec. 13: S2NE, S2NW, SE;

Sec. 14: N2;

Sec. 15: N2.

1,920.00 Acres

Duchesne County, Utah

Vernal Field Office

STIPULATIONS

UT-S-01: Air Quality

*UT-S-23: NSO/CSU/TL – Nine Mile Canyon ACEC

UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%

UT-S-99: CSU – Fragile Soils/Slopes

UT-S-100: CSU – Fragile Soils/Slopes (21%-40%)

UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves

UT-S-157: NSO/CSU/TL – Visual Resources

UT-S-218: CSU – White-Tailed Prairie Dog

UT-S-230: TL – Crucial Deer and Elk Winter Range

UT-S-247: TL – Crucial Elk Calving and Deer Fawning Habitat

UT-S-261: TL – Raptor Buffers

UT-S-325: TL – Raptor Nest Sites

LEASE NOTICES

UT-LN-02: Crucial Winter Mule Deer and Elk Habitat

UT-LN-11: Crucial Elk Calving and Deer Fawning Habitat

UT-LN-16: Pronghorn Fawning Habitat

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

UT-LN-40: Golden Eagle Habitat

UT-LN-44: Raptors

UT-LN-45: Migratory Bird

UT-LN-49: Utah Sensitive Species

UT-LN-51: Special Status Plants: Not Federally Listed

UT-LN-53: Riparian Areas

*UT-LN-56: Drinking Water Source Protection Zones

UT-LN-60: Steep Slopes

UT-LN-61: Severe Soil Erosion & Steep Slopes

UT-LN-68: Notification & Consultation Regarding Cultural Resources

*UT-LN-72: High Potential Paleontological Resources

UT-LN-83: Site Right-of-Way
 UT-LN-90: Graham Beardtongue (*penstemon grahamii*)
 UT-LN-96: Air Quality Mitigation Measures
 UT-LN-99: Regional Ozone Formation Controls
 UT-LN-102: Air Quality Analysis
 UT-LN-128: Floodplain Management
 *UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
 UT-LN-132: Greater Sage-Grouse – Required Design Features
 *UT-LN-133: Greater Sage-Grouse - Buffer
 UT-LN-134: Graham Beardtongue (*penstemon grahamii*) and White River Beardtongue
 (*penstemon scariosus* var. *albifluvis*) Conservation Areas
 *UT-LN-156: Pollinators and Pollinator Habitat
 T&E-03: Endangered Fish of the Upper Colorado River Drainage Basin
 T&E-05: Listed Plant Species
 T&E-12: Pariette Cactus (*sclerocactus brevispinus*) and Uinta Basin Hookless Cactus
 (*sclerocactus wetlandicus*)
 T&E-21: Shrubby Reed - Mustard (*schoenocrambe suffrutescens*)
 T&E-22: Ute Ladies'-Tresses (*spiranthes diluvialis*)

B.2 DESCRIPTION OF LEASE STIPULATIONS AND NOTICES

Table 42 Standard Lease Stipulations (from H-3120 – Competitive Leasing Handbook)*

STIPULATION	DESCRIPTION/PURPOSE
HQ-CR-1	CULTURAL RESOURCE PROTECTION 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.
HQ-TES-1	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 would contribute to a need to list such 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 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.

STIPULATION	DESCRIPTION/PURPOSE
HQ-MLA-1	NOTICE TO LESSEE – MINERAL LEASING ACT SECTION 2(A)(2)(A) Provisions of the Mineral Leasing Act (MLA) of 1920, as amended by the Federal Coal Leasing Amendments Act of 1976, affect an entity’s qualifications to obtain an oil and gas lease. Section 2(a)(2)(A) of the MLA, 30 U.S.C. 201(a)(2)(A), requires that any entity that holds and has held a Federal Coal Lease for 10 years beginning on or after August 4, 1976, and which is not producing coal in commercial quantities from each such lease, cannot qualify for the issuance of any other lease granted under the MLA. Compliance by coal lessees with Section 2(a)(2)(A) is explained in 43 CFR 3472. In accordance with the terms of this oil and gas lease with respect to compliance by the initial lessee with qualifications concerning Federal coal lease holdings, all assignees and transferees are hereby notified that this oil and gas lease is subject to cancellation if: (1) the initial lessee as assignor or as transferor has falsely certified compliance with Section 2(a)(2)(A) because of a denial or disapproval by a State Office of a pending coal action, i.e., arms-length assignment, relinquishment, or logical mining unit, the initial lessee as assignor or as transferor is no longer in compliance with Section 2(a)(2)(A). The assignee or transferee does not qualify as a bona fide purchaser and, thus, has no rights to bona fide purchaser protection in the event of cancellation of this lease due to noncompliance with Section 2(a)(2)(A). Information regarding assignor or transferor compliance with Section 2(a)(2)(A) is contained in the lease case file as well as in other Bureau of Land Management records available through the State Office issuing this lease.

*These stipulations are attached to all leases issued.

Table 43 Utah Lease Stipulations

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

Stipulation	Description/Purpose
UT-S-11	NO SURFACE OCCUPANCY – PARIETTE WETLANDS ACEC No surface occupancy will be allowed within the Pariette Wetlands ACEC. Exception: None Modification: None Waiver: None
UT-S-17	CONTROLLED SURFACE USE – ALKALI RIDGE ACEC Cultural properties eligible for or listed on the National Register of Historic Places shall be surrounded by an avoidance area sufficient to avoid direct and indirect impacts. When siting oil and gas facilities, avoidance may require that a facility be moved farther than allowed under the standard lease terms and conditions. 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-22	NO SURFACE OCCUPANCY/CONTROLLED SURFACE USE/TIMING LIMITATIONS – LOWER GREEN RIVER ACEC No surface disturbing activities for oil and gas leasing within the Lower Green River Corridor within line of sight or up to one-half mile from the centerline of the river, whichever is less and within approximately 8,079 acres. Approximately 71 acres will be open to leasing subject to moderate constraints such as timing limitations and controlled surface use. Exception: An exception will be granted if the disturbance complemented recreational goals and objectives. Modification: None Waiver: None
UT-S-23	NO SURFACE OCCUPANCY/CONTROLLED SURFACE USE/TIMING LIMITATION – NINE MILE CANYON ACEC No surface occupancy for oil and gas leasing within approximately 17,162 acres, and approximately 209 acres will be open to leasing subject to moderate constraints such as timing limitations and controlled surface use. Exception: None Modification: None Waiver: None

Stipulation	Description/Purpose
UT-S-24	NO SURFACE OCCUPANCY/CONTROLLED SURFACE USE/TIMING LIMITATION – RED CREEK WATERSHED ACEC No surface occupancy for oil and gas leasing within approximately 162 acres of the Red Creek Watershed ACEC. Approximately 12,362 acres will be open to leasing subject to moderate constraints such as timing limitations and controlled surface use. Exception: None Modification: None Waiver: None
UT-S-53	NO SURFACE OCCUPANCY – DEVELOPED RECREATION SITES No surface disturbing activities, shooting of firearms or grazing will occur within developed recreation sites. Exception: An exception will be granted if the disturbance were related to recreational infrastructure support. Modification: None Waiver: None
UT-S-77	NO SURFACE OCCUPANCY – MOAB CANYON UTILITY CORRIDOR No mineral activities allowed within the utility corridor other than those associated with utilities. Purpose: To prevent future surface use conflicts along Highway 191 and within the utility corridor. Exception: The Authorized Officer may grant an exception if it is determined that the factors leading to its inclusion in the lease have changed sufficiently such that: 1) the protection provided by the stipulation is no longer justified or necessary to meet resource objectives established in the Moab MLP; or 2) proposed operations would not cause unacceptable impacts. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. Modification: The Authorized Officer may modify the stipulation as a result of new information if: 1) the protection provided by the stipulation is no longer justified or necessary to meet resource objectives established in the Moab MLP; 2) the protection provided by the stipulation is no longer sufficient to meet resource objectives established in the Moab MLP; or 3) proposed operations would not cause unacceptable impacts. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The modification may be subject to public review for at least a 30-day period. Waiver: The Authorized Officer may waive the stipulation if it is determined that the factors leading to its inclusion in the lease no longer exist. The Authorized Officer may require additional plans of development, surveys, mitigation

Stipulation	Description/Purpose
	proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The waiver may be subject to public review for at least a 30-day period.
UT-S-78	NO SURFACE OCCUPANCY – CEMETERIES, CULINARY WATER SOURCES, LANDFILL (EXISTING AND CLOSED), LANDS MANAGED UNDER R&PP ACT LEASES, SITES LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES, INCORPORATED MUNICIPALITIES, DEVELOPED RECREATION SITES, AND BLM ADMINISTERED SITES No surface occupancy for oil and gas activities. Exception: None Modification: None Waiver: None
UT-S-87	NO SURFACE OCCUPANCY – WHITE RIVER BLM NATURAL AREA No surface occupancy within the White River BLM Natural Area. Exception: No exceptions for oil and gas activity. When compatible with the goals and objectives for management of BLM Natural Areas, the following activities could be permitted: • Vegetation and fuel treatments using prescribed fire, mechanical and chemical treatments, and other actions compatible with the Healthy Lands Initiative (HLI); • Construction of wildlife water and livestock facilities, and minimal recreation facilities; • Authorize reasonable access to non-BLM managed lands. Modification: None Waiver: None
UT-S-96	NO SURFACE OCCUPANCY – FRAGILE SOILS/SLOPES GREATER THAN 40% No surface occupancy for slopes greater than 40 percent. Exception: If after an environment analysis the authorized officer determines that it would cause undue or unnecessary degradation to pursue other placement alternatives; surface occupancy in the NSO area may be authorized. Additionally a plan shall be submitted by the operator and approved by BLM prior to construction and maintenance and include: • An erosion control strategy; • GIS modeling; • Proper survey and design by a certified engineer. Modification: Modifications also may be granted if a more detailed analysis, i.e. Order I, soil survey conducted by a qualified soil scientist finds that surface

Stipulation	Description/Purpose
	disturbance activities could occur on slopes greater than 40% while adequately protecting the area from accelerated erosion. Waiver: None
UT-S-97	NO SURFACE OCCUPANCY – FRAGILE SOILS/SLOPES FOR SLOPES GREATER THAN 40% No surface occupancy on slopes greater than 40 percent. Exception: If after an environment analysis the authorized officer determines that it would cause undue or unnecessary degradation to pursue other placement alternatives; surface occupancy in the area may be authorized. In addition, a plan from the operator and BLM’s approval of the plan shall be required before construction and maintenance could begin. The plan would have to include: • An erosion control strategy; • GIS modeling; • Proper survey and design by a certified engineer. Modification: None Waiver: None
UT-S-99	CONTROLLED SURFACE USE – FRAGILE SOIL/SLOPES The surface operating standards for oil and gas exploration and development (Gold Book) shall be used as a guide for surface-disturbing proposals on steep slopes/hillsides. Exception: None Modification: None Waiver: None
UT-S-100	CONTROLLED SURFACE USE – FRAGILE SOILS/SLOPES (21%-40%) If surface-disturbing activities cannot be avoided on slopes from 21-40% a plan will be required. The plan will approved by BLM prior to construction and maintenance and include: • An erosion control strategy; • GIS modeling; • Proper survey and design by a certified engineer. Exception: None Modification: None Waiver: None
UT-S-101	CONTROLLED SURFACE USE – FRAGILE SOILS/SLOPES 20-40 PERCENT In surface disturbing proposals regarding construction on slopes of 20 percent to 40 percent, include an approved erosion control strategy and topsoil segregation/restoration plan. Such construction must be properly surveyed and

Stipulation	Description/Purpose
	designed by a certified engineer and approved by the BLM prior to project implementation, construction, or maintenance. Exception: If after an environment analysis the authorized officer determines that it would cause undue or unnecessary degradation to pursue other placement alternatives; surface occupancy in the area may be authorized. In addition, a plan from the operator and BLM's approval of the plan would be required before construction and maintenance could begin. The plan must include: • An erosion control strategy; • GIS modeling; • Proper survey and design by a certified engineer. Modification: Modifications also may be granted if a more detailed analysis is conducted and shows that impacts can be mitigated, e.g., Order I soil survey conducted by a qualified soil scientist, finds that surface disturbance activities could occur on slopes between 20 and 40 percent while adequately protecting areas from accelerated erosion. Waiver: None
UT-S-102	CONTROLLED SURFACE USE – FRAGILE SOILS/SLOPES 30 PERCENT OR GREATER No surface disturbing proposed projects involving construction on slopes greater than 30. If the action cannot be avoided, rerouted, or relocated than a proposed project will include an erosion control strategy, reclamation and a site plan with a detailed survey and design completed by a certified engineer. This proposed project must be approved by the BLM prior to construction and maintenance. Exception: None Modification: None Waiver: None
UT-S-104	NO SURFACE OCCUPANCY – SLOPES IN EXCESS OF 30 PERCENT The lessee/operator is given notice that lands in this lease have been identified as containing Burrowing Owl Habitat. Modification to the Surface Use Plan of Operations may be required in order to protect the Burrowing Owl and/or habitat from surface disturbing activities in accordance with Section 6 of the lease terms, Endangered Species Act, and 43 CFR 3101.1-2.
UT-S-106	CONTROLLED SURFACE USE – FRAGILE SOILS/SLOPES (21%-40%) 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

Stipulation	Description/Purpose
UT-S-109	TIMING LIMITATION – FRAGILE SOILS-MANCOS SHALE No surface-disturbing activities allowed during December 1 to May 31 to minimize watershed damage including compaction, rutting, and topsoil loss on saline soils derived from the Mancos Shale. This restriction includes heavy equipment traffic on existing roads associated with drilling operations. Exception: An exception could be granted if the operator can provide a plan of development demonstrating that the proposed action would be properly designed and constructed to support the anticipated types and levels of use. Roads must be designed to meet BLM road standards for drainage control and surfaced to support heavy equipment and tractor trailers. Adjustments to the timing restriction could be considered by the authorized officer on a case-by-case basis, depending on current soil and weather conditions. Modification: None Waiver: None
UT-S-111	NO SURFACE OCCUPANCY – WETLAND/HYDRIC SOILS No surface occupancy on wetland soils or soils identified as having hydric soil properties. Exception: Consider exceptions to NSO if a site-specific environmental analysis determines that other placement alternatives would cause undue or unnecessary degradation to resources. In addition, require the operator to submit a plan prior to commencing operations that addresses: • Erosion control strategies; • Mitigation to protect surface from rutting, compaction, and displacement, and disruption of surface and subsurface hydrologic function; • Mitigation or restoration measures to restore hydrologic function to site; • Proper survey and design by a certified engineer. Modification: None Waiver: None
UT-S-117	NO SURFACE OCCUPANCY – RIVER CORRIDORS: LOWER GREEN RIVER Between the Indian trust land boundary at Ouray and the Carbon County line, surface disturbing activities within the Lower Green River Corridor and Lower Green River Expansion will be subject to NSO within line of sight or up to one-half mile from the centerline of the river, whichever is less. Exception: Future facilities will be placed within the existing ROW corridor near the Four Mile Bottom area where an existing pipeline crosses the Green River. Modification: None Waiver: None

Stipulation	Description/Purpose
UT-S-119	NO SURFACE OCCUPANCY – LOWER GREEN RIVER CORRIDOR No surface occupancy within a minimum of ¼ mile from the high water mark on both banks up to ½ mile from the Ouray boundary to Carbon County line. Exception: Future facilities will be placed within the existing ROW corridor near the Four Mile Bottom area where an existing pipeline crosses the Green River. Modification: None Waiver: None
UT-S-120	NO SURFACE OCCUPANCY – WHITE RIVER CORRIDOR No surface occupancy with the centerline line of site, up to ½ mile along both sides of the river from where the river enters Township 10 South, Range 24 East, to where the river leaves Section 18, Township 10 South, Range 23 East. Exception: Recognized utility corridors are excepted. Modification: None Waiver: None
UT-S-121	NO SURFACE OCCUPANCY – RIPARIAN AND WETLAND AREAS No surface disturbance and/or occupancy within buffer zones around natural springs. Base the size of the buffer on hydrological, riparian, and other factors necessary to protect the water quality of the springs. If these factors cannot be determined, maintain a 330-foot buffer zone from outer edge. Exception: Consider exceptions if it can be shown that (1) there are no practical alternatives to the disturbance, (2) all long-term impacts can be fully mitigated, and (3) the activity will benefit and enhance the riparian area. Consider compensatory mitigation where surface disturbance cannot be avoided within riparian wetland habitats on a site-specific basis. 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

Stipulation	Description/Purpose
UT-S-123	NO SURFACE OCCUPANCY – RIPARIAN, FLOODPLAINS, AND PUBLIC WATER RESERVES No new surface-disturbing activities are allowed within active flood plains, wetlands, public water reserves, or 100 meters of riparian areas. Keep construction of new stream crossings to a minimum. 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 resources. Modification: None Waiver: None
UT-S-126	NO SURFACE OCCUPANCY – NATURAL SPRINGS No surface disturbance or occupancy will be maintained around natural springs to protect the water quality of the spring. The distance would be based on geophysical, riparian, and other factors necessary to protect the water quality of the springs. If these factors cannot be determined, a 660-foot buffer zone would be maintained. 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 resources. Modification: None Waiver: None
UT-S-127	NO SURFACE OCCUPANCY – INTERMITTENT AND PERENNIAL STREAMS No new surface disturbance (excluding fence lines) will be allowed in areas within the 100-year floodplain or 100 meters (330 feet) on either side from the centerline, whichever is greater, along all perennial and intermittent streams, streams with perennial reaches, and riparian areas. Exception: The authorized officer could authorize an exception if it could be shown that the project as mitigated eliminated the need for the restriction. 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 resources. Modification: None Waiver: None
UT-S-128	NO SURFACE OCCUPANCY – FLOODPLAINS, RIPARIAN AREAS, SPRINGS AND PUBLIC WATER RESOURCES No surface-disturbing activities are allowed in active floodplains, public water reserves or within 100 meters of riparian areas along perennial streams and springs.

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	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-132	NO SURFACE OCCUPANCY – LIVE WATER No occupancy or other surface disturbance will be allowed within 600 feet of live water. Exception: None Modification: This distance may be modified when specifically approved in writing by the authorized officer of the BLM. Waiver: None
UT-S-138	NO SURFACE OCCUPANCY – SEVIER RIVER AND DMAD RESERVOIR In order to protect the Sevier River and DMAD Reservoir no occupancy or other subsurface disturbance within 100 feet of the river or 1000 feet of the reservoir high water line will be allowed. Exception: None Modification: None Waiver: None
UT-S-150	NO SURFACE OCCUPANCY – SEVIER RIVER RIPARIAN AREA All of the land in the designated area is included in the Sevier River Riparian Area. Therefore, no occupancy or disturbance of the surface of the land described in this area is authorized. The lease holder however, may exploit the oil and gas resources in the area by directional drilling from sites outside this area. Exceptions: None Modification: None Waiver: None
UT-S-157	NO SURFACE OCCUPANCY/CONTROLLED SURFACE USE/TIMING LIMITATION – VISUAL RESOURCES Visual resource management activities will comply with BLM Handbook 8410-1. Within VRM Class I areas, very limited management activity will be allowed, with the objective of preserving the existing character of the landscape, allowing for natural ecological changes. The level of change to the landscape should be very low and shall not attract attention. Within VRM Class II areas, surface-disturbing activities will retain the existing character of the landscape. The level of change to the landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any change to the landscape shall repeat the basic elements of

Stipulation	Description/Purpose
	form, line, color and texture found in the predominant natural features of the characteristic landscape. Within VRM Class III areas, surface disturbing activities will partially retain the existing character of the landscape. The allowable level of change will be moderate, may attract attention, but should not dominate the view of the casual observer. Landscape changes should repeat the basic elements of form, line, color and texture found in the predominant natural features of the characteristic landscape. Within VRM Class IV areas, surface disturbing activities are allowed to dominate the view and the major focus of viewer attention. Major modifications to the existing character of the landscape are allowed. But every attempt should be made to minimize and mitigate the impacts. Exception: Exempted are recognized utility corridors. Modification: None Waiver: None
UT-S-159	CONTROLLED SURFACE USE – VISUAL RESOURCES - VRM II Within VRM II areas, surface-disturbing activities will retain the existing character of the landscape. The level of change to the landscape should be low. Management activities may be seen, but should not attract attention of the casual observer. Any change to the landscape must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape. Exception: Exempted are recognized utility corridors. Modification: None Waiver: None
UT-S-169	CONTROLLED SURFACE USE – CULTURAL RESOURCE INVENTORIES Cultural resources inventories (including point, area, and linear features) will be required for all federal undertakings that could affect cultural resources or historic properties in areas of both direct and indirect impacts. Waiver of Inventory: Although complete Class III inventories will be performed for most land use actions, an authorized officer could waive inventory for any part of an Area of Potential Effect when one or more of the following conditions exist: • Previous natural ground disturbance has modified the surface so extensively that the likelihood of finding cultural properties is negligible. (Note: This is not the same as being able to document that any existing sites may have been affected by surface disturbance; ground disturbance must have been so extensive as to reasonably preclude the location of any such sites.) • Human activity within the last 50 years has created a new land surface to such an extent as to eradicate locatable traces of cultural properties.

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	- Existing Class II or equivalent inventory data are sufficient to indicate that the specific environmental situation did not support human occupation or use to a degree that would make further inventory information useful or meaningful. - Previous inventories must have been conducted according to current professionally acceptable standards. - Records are available and accurate and document the location, methods, and results of the inventory. - Class II “equivalent inventory data” includes an adequate amount of acreage distributed across the same specific environmental situation that is located within the study area. - Inventory at the Class III level has previously been performed, and records documenting the location, methods, and results of the inventory are available. Such inventories must have been conducted according to current professionally acceptable standards. - Natural environmental characteristics (such as recent landslides or rock falls) are unfavorable to the presence of cultural properties. - The nature of the proposed action is such that no impact can be expected on significant cultural resources. Conditions exist that could endanger the health or safety of personnel, such as the presence of hazardous materials, explosive ordnance, or unstable structures.
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-171	NO SURFACE OCCUPANCY – CULTURAL RESOURCES No Surface Occupancy within ¼ mile or within the visual horizon, whichever is closer, of cultural sites where the landscape features are important in understanding the property or sites where setting directly contributes to the significance of the property. Exception: An exception could be authorized if the use is consistent and compatible with protection or enhancement of the resource values or will provide suitable opportunities for public enjoyment of these resources. Modification: None

Stipulation	Description/Purpose
	Waiver: None
UT-S-174	NO SURFACE OCCUPANCY/CONTROLLED SURFACE USE/TIMING LIMITATION – CULTURAL RESOURCES – UINTA FOOTHILLS AREA The area will be open for oil and gas leasing and other surface disturbing activities subject to timing and controlled surface-use stipulations or NSO. Exception: Permit excavation of cultural resources sites in NSO areas. Modification: None Waiver: None
UT-S-175	CONTROLLED SURFACE USE/TIMING LIMITATION – CULTURAL RESOURCES – UPPER WILLOW CREEK AREA OF THE BOOK CLIFFS To preserve the unique representation of the Archaic period, the surface disturbing activities will be subject to timing and controlled surface use stipulations. Exception: None Modification: None Waiver: None
UT-S-182	NO SURFACE OCCUPANCY – CRITICAL HABITAT OF THE ENDANGERED COLORADO RIVER FISHES Surface-disturbing activities will not be allowed within the 100-year floodplain of the Colorado River and San Juan River or lands within this watershed that contains tributaries with designated critical habitat for the Colorado River fish (bonytail, humpback chub, Colorado pike minnow, and razorback sucker) listed as endangered under the Endangered Species Act. Critical habitat was designated for the four endangered Colorado River fishes on March 21, 1994 (59 FR 13374-13400). Designated critical habitat for all the endangered fishes includes those portions of the 100-year floodplain that contain primary constituent elements necessary for survival of the species. Avoidance or use restrictions may be placed on portions of the lease. The following avoidance and minimization measures have been designed to ensure activities carried out on the lease are in compliance with the Endangered Species Act. Integration of, and adherence to these measures will facilitate review and analysis of any submitted permits under the authority of this lease. Following these measures could reduce the scope of Endangered Species Act, Section 7 consultation at the permit stage. Current avoidance and minimization measures include the following: 1. Surveys will be required prior to operations unless species occupancy and distribution information is complete and available. All surveys must be conducted by qualified individual(s). 2. 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.

Stipulation	Description/Purpose
	3. Water production will be managed to ensure maintenance or enhancement of riparian habitat. 4. Avoid loss or disturbance of riparian habitats. 5. Where technically and economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and eliminate drilling in suitable riparian habitat. Ensure that such directional drilling does not intercept or degrade alluvial aquifers. 6. Conduct watershed analysis for leases in designated critical habitat and overlapping major tributaries in order to determine toxicity risk from permanent facilities. 7. Implement the Utah Oil and Gas Pipeline Crossing Guidance (from BLM National Science and Technology Center). 8. Drilling will not occur within 100-year floodplains of rivers or tributaries to rivers that contain listed fish species or critical habitat. 9. In areas adjacent to 100-year floodplains, particularly in systems prone to flash floods, analyze the risk for flash floods to impact facilities, and use closed loop drilling, and pipeline burial or suspension according to the Utah Oil and Gas Pipeline Crossing Guidance, to minimize the potential for equipment damage and resulting leaks or spills. Water depletions from any portion of the Upper Colorado River drainage basin above Lake Powell are considered to adversely affect or adversely modify the critical habitat of the four resident endangered fish species, and must be evaluated with regard to the criteria described in the Upper Colorado River Endangered Fish Recovery Program. Formal consultation with USFWS is required for all depletions. All depletion amounts must be reported to BLM. Additional measures to avoid or minimize effects to the species may be developed and implemented in consultation with the USFWS between the lease sale stage and lease development stage to ensure continued compliance with the ESA. Exception: An exception may be granted by the authorized officer if: 1) There is no practical alternative, and 2) The development would enhance riparian/aquatic values. This exception would require consultation with the USFWS. The authorized officer may also grant an exception if an environmental analysis indicates that the nature or the conduct of the actions, as proposed or conditioned, would not impair the primary constituent element determined necessary for the survival and recovery of the Endangered Colorado River Fishes. 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 Endangered Colorado River Fishes are de-listed and the Critical Habitat is determined by USFWS as not necessary for the survival and recovery of the Endangered Colorado River Fishes.

Stipulation	Description/Purpose
UT-S-195	NO SURFACE OCCUPANCY – GREATER SAGE-GROUSE LEKS No surface-disturbing activities within 1/4 mile of active Greater Sage-Grouse leks year-round found outside of Priority Habitat Management Areas (PHMA). Exception: None Modification: None Waiver: None
UT-S-205	TIMING LIMITATION – GREATER SAGE-GROUSE BROOD REARING AND NESTING No surface-disturbing activities within 2 miles of active Greater Sage-Grouse leks found outside of Priority Habitat Management Areas (PHMA) within brood rearing and nesting habitat from March 1 - June 15. Exception: None Modification: None Waiver: None
UT-S-206	CONTROLLED SURFACE USE – GREATER SAGE-GROUSE (NOISE REDUCTION) Within ½ mile of known active Greater Sage-Grouse leks found outside of Priority Habitat Management Areas (PHMA) use the best available technology such as installation of multi-cylinder pumps, hospital sound reducing mufflers, and placement of exhaust systems to reduce noise. Exception: None Modification: None Waiver: None
UT-S-207	CONTROLLED SURFACE USE – GREATER SAGE-GROUSE (STRUCTURES) No permanent facilities or structures would be allowed within 2 miles Greater Sage-Grouse leks found outside of Priority Habitat Management Areas (PHMA) when possible. Exception: None Modification: None Waiver: None
UT-S-208	TIMING LIMITATION – GREATER SAGE-GROUSE BREEDING AND NESTING HABITAT In order to protect important Greater Sage-Grouse breeding and nesting habitat outside of Priority Habitat Management Areas (PHMA), exploration, drilling, and other development activity within two miles of any strutting ground found outside of PHMA will be allowed only during the period from June 16 to February 28. This limitation does not apply to maintenance and operation of producing wells.

Stipulation	Description/Purpose
	Exception: None
UT-S-218	CONTROLLED SURFACE USE – WHITE-TAILED PRAIRIE DOG No surface-disturbing activities within 660 feet of prairie dog colonies identified within prairie dog habitat. No permanent aboveground facilities are allowed within the 660 feet buffer. Exception: An exception may be granted by the authorized officer if the applicant submits a plan that indicates that impacts of the proposed action can be adequately mitigated or, if due to the size of the town, there is no reasonable location to develop a lease and avoid colonies the authorized officer will allow for loss of prairie dog colonies and/or habitat to satisfy terms and conditions of the lease. Modification: The authorized officer may modify the boundaries of the stipulation area if portions of the area does not include prairie dog habitat or active colonies are found outside current defined area, as determined by BLM. Waiver: May be granted if in the leasehold if it is determined that habitat no longer exists or has been destroyed.
UT-S-219	CONTROLLED SURFACE USE – WHITE-TAILED PRAIRIE DOG TOWNS No occupancy or other surface disturbance will be allowed within White-tailed prairie dog towns, if such activity will result in destruction of the prairie dog town. Exception: None Modification: None Waiver: None
UT-S-221	CONTROLLED SURFACE USE/TIMING LIMITATION – UTAH PRAIRIE DOG The Lessee/Operator is given notice that lands in this lease may contain historic and/or occupied Utah prairie dog habitat, a threatened species under the Endangered Species Act (ESA). Avoidance or use restrictions may be placed on portions of the lease. Application of appropriate measures will depend on whether the action is temporary or permanent, and whether it occurs when prairie dogs are active or hibernating. A temporary action is completed prior to the following active season leaving no permanent structures and resulting in no permanent habitat loss. A permanent action continues for more than one activity/hibernation season and/or causes a loss of Utah prairie dog habitat or displaces prairie dogs through disturbances (e.g., 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 ESA. 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 ESA Section 7 consultation at the permit stage. Current avoidance and minimization measures include the following:

Stipulation	Description/Purpose
	1. Surveys will be required prior to operations unless species occupancy and distribution information is complete and available. All surveys must be conducted by qualified individual(s). 2. Lease activities will required monitoring throughout the duration of the project. To ensure desired results are being achieved, minimization measures will be evaluated and, if necessary, Section 7 consultation reinitiated. 3. Where technically and economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and eliminate drilling in prairie dog habitat. 4. Surface occupancy or other surface disturbing activity will be avoided within 0.5 mile of active prairie dog colonies. 5. Permanent surface disturbance or facilities will be avoided within 0.5 mile of potentially suitable, unoccupied prairie dog habitat, identified and mapped by Utah Division of Wildlife Resources since 1976. 6. The lessee/operator should consider if fencing infrastructure on well pad, e.g., drill pads, tank batteries, and compressors, would be needed to protect equipment from burrowing activities. In addition, the operator should consider if future surface disturbing activities would be required at the site. 7. Within occupied habitat, set a 25 mph speed limit on operator-created and maintained roads. 8. Limit disturbances to and within suitable habitat by staying on designated routes. 9. 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 USFWS between the lease sale stage and lease development stage to ensure continued compliance with the ESA. Exception: None Modification: None Waiver: None
UT-S-224	TIMING LIMITATION – PRONGHORN FAWNING GROUNDS No surface-disturbing activities from May 1 to June 15 within Cisco Desert and Hatch Point pronghorn fawning grounds to minimize stress and disturbance during critical pronghorn birthing time. Exception: May be granted to these dates by the authorized officer if the operator submits a plan which demonstrates that impacts from the proposed action can be adequately mitigated or if it is determined the habitat is not being utilized for fawning in any given year. Modification: The authorized officer may modify the boundaries of the stipulation area if a portion of the area is not being used as fawning grounds or if habitat is being utilized outside of stipulation boundaries as crucial fawning grounds and needs to be protected.

Stipulation	Description/Purpose
	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-230	TIMING LIMITATION – CRUCIAL DEER AND ELK WINTER RANGE No surface disturbing activities in deer and elk crucial winter range from December 1 - April 30. Exception: This restriction would not apply if and/or elk are not present, or if it is determined through analysis and coordination with UDWR that impacts could be mitigated. Factors to be considered would include snow depth, temperature, snow crusting, location of disturbance, forage quantity and quality, animal condition, and expected duration of disturbance. Modification: The stipulation could be modified based on findings of collaborative monitoring and analysis. For example, the winter range configuration and time frames could be changed if current animal use patterns are determined to be inconsistent with the dates and boundaries established. Waiver: This stipulation could be waived if it is determined through collaborative monitoring and analysis that the area is not crucial winter range or that timing restrictions are unnecessary.
UT-S-231	CONTROLLED SURFACE USE – CRUCIAL DEER WINTER RANGE Within crucial deer winter range, no more than 10% of such habitat will be subject to surface disturbance and remain un-reclaimed at any given time. Exception: This stipulation may be excepted if either the resource values change or the lessee/operator demonstrates to BLMs satisfaction that impacts can be mitigated. Modification: None Waiver: None
UT-S-232	TIMING LIMITATION – MULE DEER AND ELK CRUCIAL WINTER RANGE No surface disturbing or otherwise disruptive activities within mule deer and elk crucial winter range from December 1 to April 15. Exception: Upon review and monitoring, the authorized officer may grant exceptions because of climatic and/or range conditions if certain criteria are met and if activities would not cause undue stress to deer and/or elk populations or habitats. Modification: Season may be adjusted depending on climatic and range conditions. Waiver: A waiver may be granted if the winter range habitat is unsuitable for or unoccupied during winter months by deer/elk and there is no reasonable likelihood of future winter range use.

Stipulation	Description/Purpose
UT-S-233	TIMING LIMITATION – MULE DEER AND ELK CRUCIAL WINTER RANGE No surface disturbing or otherwise disruptive activities within mule deer and elk crucial winter range from December 1 to April 15. Exception: Upon review and monitoring, the authorized officer may grant exceptions because of climatic and/or range conditions if certain criteria are met and if activities would not cause undue stress to deer and/or elk populations or habitats. Modification: Season may be adjusted depending on climatic and range conditions. Waiver: A waiver may be granted if the winter range habitat is unsuitable for or unoccupied during winter months by deer/elk and there is no reasonable likelihood of future winter range use.
UT-S-233	TIMING LIMITATION – CRUCIAL MULE DEER AND ELK WINTER HABITAT Restrict surface disturbing activities in crucial mule deer and elk habitats from December 15 to April 15 to protect winter habitats. Exception: This stipulation does not apply to the maintenance and operation of existing and ongoing facilities. An exception may be granted by the Field Manager if the operator submits a plan that demonstrates that impacts from the proposed action can be adequately mitigated or it is determined the habitat is not being used during the winter period for any given year. Modification: The Field Manager may modify the boundaries of the stipulation area if (1) a portion of the area is not being used as crucial winter range by deer/elk, (2) habitat outside of stipulation boundaries is being used as crucial winter range and needs to be protected, or (3) the migration patterns have changed causing a difference in the season of use. Waiver: A 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-234	TIMING LIMITATION – CRUCIAL DEER WINTER RANGE No surface-disturbing activities within crucial deer winter range from November 15 to April 15 to minimize stress and disturbance to deer 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 deer winter range.

Stipulation	Description/Purpose
	Waiver: May be granted if the deer winter range is determined to be unsuitable or unoccupied and there is no reasonable likelihood of future use of the deer winter range.
UT-S-235	TIMING LIMITATION – MULE DEER WINTER RANGE In order to protect mule deer winter range, seismic work, well development, new road development and other surface disturbing activities in mule deer winter ranges will be restricted between November 15 and April 30. This limitation does not apply to maintenance and operation of producing wells. Exception: Exceptions to this limitation in any year may be specifically authorized in writing by the District Engineer, U. S. Geological Survey with the concurrence of the District Manager, Bureau of Land Management. Modification: None Waiver: None
UT-S-247	TIMING LIMITATION – CRUCIAL ELK CALVING AND DEER FAWNING HABITAT In order to protect crucial elk calving and deer fawning habitat exploration, drilling, and other development activity will not be allowed from May 15 - June 30. Exception: This restriction would not apply to maintenance and operation of existing facilities. This stipulation may be excepted if either the resource values change or the lessee/operator demonstrates to BLMs satisfaction that adverse impact can be mitigated. Modification: None Waiver: None
UT-S-251	TIMING LIMITATION – DEER MIGRATION CORRIDOR (MONUMENT AND MCCOOK RIDGES) No surface-disturbing activities from April 15-May 31 within McCook and Monument Ridge mule deer migration corridors. Exception: This stipulation may be excepted if either the resource values change or the lessee/operator demonstrates to BLM's satisfaction that adverse impact can be mitigated. Modification: None Waiver: None
UT-S-261	TIMING LIMITATION – RAPTOR BUFFERS Raptor management will be guided by the use of "Best Management Practices for Raptors and Their Associated Habitats in Utah" (Utah BLM, 2006, Appendix A), utilizing seasonal and spatial buffers, as well as mitigation, to maintain and enhance raptor nesting and foraging habitat, while allowing other resource uses. Exception: None

Stipulation	Description/Purpose
	Modification: Criteria that would need to be met, prior to implementing modifications to the spatial and seasonal buffers in the “Raptor BMPs”, would include the following: 1. Completion of a site-specific assessment by a wildlife biologist or other qualified individual. See example (Attachment 1 of the Raptor BMPs in Appendix A) 2. Written documentation by the BLM Field Office Wildlife Biologist, identifying the proposed modification and affirming that implementation of the proposed modification(s) would not affect nest success or the suitability of the site for future nesting. Modification of the “BMPs” would not be recommended if it is determined that adverse impacts to nesting raptors would occur or that the suitability of the site for future nesting would be compromised. 3. Development of a monitoring and mitigation strategy by a BLM biologist, or other raptor biologist. Impacts of authorized activities would be documented to determine if the modifications were implemented as described in the environmental documentation or Conditions of Approval, and were adequate to protect the nest site. Should adverse impacts be identified during monitoring of an activity, BLM would follow an appropriate course of action, which may include cessation or modification of activities that would avoid, minimize or mitigate the impact, or, with the approval of UDWR and the USFWS, BLM could allow the activity to continue while requiring monitoring to determine the full impact of the activity on the affected raptor nest. A monitoring report would be completed and forwarded to UDWR for incorporation into the Natural Heritage Program (NHP) raptor database. Waiver: None
UT-S-269	NO SURFACE OCCUPANCY – MEXICAN SPOTTED OWL No surface occupancy within 1/2 mile of known Mexican Spotted Owl (MSO) nests. Exception: The authorized officers may grant an exception if an environmental analysis demonstrates that the action would not impair the function or utility of the site for nesting or other owl-sustaining activities. Modification: The authorized officers may modify the NSO area in extent if an environmental analysis finds that a portion of the area is nonessential to site utility or function or if natural features provide adequate visual or auditory screening. Waiver: A waiver may be granted if the MSO is de-listed and the area is determined as not necessary for the survival and recovery of the MSO.
UT-S-272	CONTROLLED 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.

Stipulation	Description/Purpose
	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.

Stipulation	Description/Purpose
	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-276	CONTROLLED SURFACE USE/TIMING LIMITATION – BALD EAGLE 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-

Stipulation	Description/Purpose
	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.

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	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-278	CONTROLLED SURFACE USE – BALD EAGLE WINTER ROOST Protect and restore cottonwood bottoms for bald eagle winter habitat along the Green and White Rivers, at Pelican Lake, and at the Cliff Creek Bald Eagle roost site, as well as any new roost sites discovered in the future. Exception: None Modification: None Waiver: None
UT-S-281	CONTROLLED SURFACE USE/TIMING LIMITATION – BALD EAGLE HABITAT/NESTING AREAS In order to protect bald eagle habitat/nesting areas, exploration, and drilling and other development activity within 0.5 mile radius of the sites will not be allowed only from March 16 to November 14. This limitation does not apply to maintenance and operation of producing wells. Exception: Specific exceptions may be granted by the BLM if the proposed activity will not seriously disturb wildlife habitat values being protected. This determination will be made by a BLM wildlife biologist in coordination with the Utah Division of Wildlife Resources and the USF&WS. Such a determination may result if the roost site no longer exists or other roost sites are found to have taken over in importance to the bald eagles present to allow for disturbing activities for fluid mineral leasing and exploration. Modification: None Waiver: None
UT-S-285	TIMING LIMITATION – MIGRATORY BIRD NESTING Migratory bird nesting areas will be closed seasonally from April 15 to August 1. Areas with migratory birds designated as BLM Special Status Species will have the highest priority. Exception: Upon review and monitoring, the authorized officer may grant exceptions because of climatic and/or habitat conditions if activities would not cause undue stress to migratory bird populations. Modification: Season may be adjusted depending on climatic and range conditions. Distance may be adjusted if natural features provide adequate visual screening. Waiver: None

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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.

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	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-290	CONTROLLED SURFACE USE/TIMING LIMITATION – SOUTHWESTERN WILLOW FLYCATCHER In areas that contain riparian habitat within the range for the Southwestern Willow Flycatcher, actions would be avoided or restricted that may cause stress and disturbance during nesting and rearing of their young. Appropriate measures will depend on whether the action is temporary or permanent, and whether it occurs within or outside the nesting season. A temporary action is completed prior to the

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	following breeding season leaving no permanent structures and resulting in no permanent habitat loss. A permanent action continues for more than one breeding season and/or causes a loss of habitat or displaces flycatchers through disturbances, i.e., creation of a permanent structure. The following avoidance and minimization measures have been designed to ensure activities carried out on the lease are in compliance with the Endangered Species Act. Integration of, and adherence to these measures, will facilitate review and analysis of any submitted permits under the authority of this lease. Following these measures could reduce the scope of Endangered Species Act, Section 7 consultation at the permit stage. Current avoidance and minimization measures include the following: 1. Surveys will be required prior to operations unless species occupancy and distribution information is complete and available. All surveys must be conducted by qualified individual(s) and be conducted according to protocol. 2. Activities will require monitoring throughout the duration of the project. To ensure desired results are being achieved, minimization measures would be evaluated and, if necessary, Section 7 consultation reinitiated. 3. Water production will be managed to ensure maintenance or enhancement of riparian habitat. 4. Where technically and economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and eliminate drilling in suitable riparian habitat. Ensure that such directional drilling does not intercept or degrade alluvial aquifers. 5. Activities will maintain a 300 feet buffer from suitable riparian habitat year long. 6. Activities within 0.25 mile of occupied breeding habitat would not occur during the breeding season of May 1 to August 15. 7. Ensure that water extraction or disposal practices do not result in change of hydrologic regime that would result in loss or degradation of riparian habitat. 8. Re-vegetate with native species all areas of surface disturbance within riparian areas and/or adjacent land. Additional measures to avoid or minimize effects to the species may be developed and implemented in consultation with the USFWS between the lease sale stage and lease development stage to ensure continued compliance with the ESA. Exception: An exception may be granted by the authorized officer if authorization is obtained from USFWS (through applicable provisions of the ESA). The authorized officer may also grant an exception if an environmental analysis indicates that the nature of the conduct of the actions, as proposed or conditioned, would not impair the primary constituent element determined necessary for the survival and recovery of the Southwestern Willow Flycatcher and USFWS concurs with this determination. Modification: The authorized officer may modify the boundaries of the stipulation area if an environmental analysis indicates, and USFWS (through applicable provisions of the ESA) determines that a portion of the area is not being used as Southwestern Willow Flycatcher habitat.

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	Waiver: May be granted if the Southwestern Willow Flycatcher is de-listed and the Critical Habitat is determined by USFWS as not necessary for the survival and recovery of the Southwestern Willow Flycatcher.
UT-S-291	CONTROLLED SURFACE USE/TIMING LIMITATION – SOUTHWESTERN WILLOW FLYCATCHER The Lessee/Operator is given notice that the lands in this parcel contain riparian habitat that falls within the range for southwestern willow flycatcher, a federally listed species. Avoidance or use restrictions may be placed on portions of the lease. Application of appropriate measures will depend on whether the action is temporary or permanent, and whether it occurs within or outside the nesting season. A temporary action is completed prior to the following breeding season leaving no permanent structures and resulting in no permanent habitat loss. A permanent action continues for more than one breeding season and/or causes a loss of habitat or displaces flycatchers through disturbances (e.g., 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 (ESA). 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 ESA Section 7 consultation at the permit stage. Current avoidance and minimization measures include the following: 1. Surveys will be required prior to operations, unless species occupancy and distribution information is complete and available. All surveys must be conducted by qualified individual(s), and be conducted according to protocol. 2. 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. 3. Water production will be managed to ensure maintenance or enhancement of riparian habitat. 4. Where technically and economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and eliminate drilling in suitable riparian habitat. Ensure that such directional drilling does not intercept or degrade alluvial aquifers. 5. Drilling activities will maintain a 300 ft. buffer from suitable riparian habitat year long. 6. Drilling activities within 0.25 mile of occupied breeding habitat will not occur during the breeding season of May 1 to August 15. 7. Ensure that water extraction or disposal practices do not result in change of hydrologic regime that would result in loss or degradation of riparian habitat. 8. Re-vegetate with native species all areas of surface disturbance within riparian areas and/or adjacent uplands. 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

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	the lease sale stage and lease development stage to ensure continued compliance with the ESA. Exception: None Modification: None Waiver: None
UT-S-293	CONTROLLED SURFACE USE/TIMING LIMITATION – 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 (ESA). 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 ESA, 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.

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	6. No permanent infrastructure will be placed within 0.5 miles of established roosting sites or areas. 7. Remove big game carrion from within 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 ESA. Exception: None Modification: None Waiver: None
UT-S-294	CONTROLLED SURFACE USE/TIMING LIMITATION – CALIFORNIA CONDOR In areas that contain habitat for California Condors, actions will be avoided or restricted if the area is known or suspected to be used by condors that may cause stress and disturbance to 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

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	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 to 100 feet from on 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. 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 of the conduct of the actions, as proposed or conditioned, would not impair the primary constituent element determined necessary for the survival and recovery of the California Condor and USFWS concurs with this determination. Modification: The authorized officer may modify the boundaries of the stipulation area if an analysis indicates, and USFWS (through applicable

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	provisions of the ESA) determines that a portion of the area is not being used as California Condor nesting or roosting territories. Waiver: May be granted (through applicable provisions of the ESA) if there is no reasonable likelihood of site occupancy over a minimum 10-year period.
UT-S-297	CONTROLLED SURFACE USE/TIMING LIMITATION – YELLOW-BILLED CUCKOO No surface-disturbing activities will be conducted within 100 meters of Yellow-billed Cuckoo habitat (riparian areas) from May 15th through July 20th. Exception: An exception may be granted by the authorized officer if authorization is obtained from USFWS (through applicable provisions of the ESA). The authorized officer may also grant an exception if an environmental analysis indicates that the nature of the conduct of the actions, as proposed or conditioned, would not impair the primary constituent element determined necessary for the survival and recovery of the Yellow-billed Cuckoo and USFWS concurs with this determination. Modification: The authorized officer may modify the boundaries of the stipulation area if an environmental analysis indicates, and USFWS (through applicable provisions of the ESA) determines that a portion of the area is not being used as Yellow-billed Cuckoo habitat. Waiver: May be granted if the Yellow-billed Cuckoo is de-listed and if USFWS determines it is not necessary for the survival and recovery of the Western Yellow-billed Cuckoo.
UT-S-298	CONTROLLED 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-299	CONTROLLED SURFACE USE/TIMING LIMITATION – BLACK-FOOTED FERRET PMZ BLM will manage the black-footed ferrets and the black-footed ferret primary management zone (PMZ) consistent with the Black-footed Ferret Reintroduction Plan Amendment (UT-080-1999-02) and those portions of the Cooperative Plan for the Reintroduction and Management of Black-footed Ferret in Coyote Basin, Uintah County, Utah that are consistent with this plan amendment. New power lines constructed through the PMZ will be raptor proof. Management activities within the PMZ will be conducted with the objective of maintaining at least 10,000 acres of prairie dog colonies. According to the US Fish and Wildlife Service (USFWS) and the Utah Division of Wildlife Resources (UDWR), a minimum of 8,000 acres is acceptable as long as the ferret habitat

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	rating (the number of ferret families the habitat can support) does not fall below 50% of the 1989 levels. Whenever possible, such activities will avoid prairie dog habitat. Otherwise, activities will be designed to impact the smallest area possible and/or those areas with the lowest prairie dog densities. The creation of additional prairie dog habitat (e.g. burning vegetation and drilling new holes, etc.) will be required only if the disturbance or development reduces the prairie dog acreage below the 8,000 acre threshold. The period between breeding and emergence of young is a period of "sensitivity" for ferrets. This period extends from March 1 to July 15. The period between birth and emergence of young is a period of "critical" importance for successful ferret productivity. This period extends from May 1 to July 15. Activities involving the development or construction of temporary or permanent surface disturbances will be prohibited within 1/8 mile boundaries of known home ranges of female ferrets during the "critical" period from May 1 thru July 15. The home ranges will be determined from data obtained from radio collared animals. Previously existing or permitted operations which may occur within these boundaries will continue normal operations; however, no new surface disturbances will be initiated at these sites during the "critical" period. If a ferret is discovered at a commercial facility (e.g. Gilsonite mine, well pad, power plant), it will then be decided by the USFWS and UDWR, if removal of the ferret was necessary and, if so, removal will be initiated within 48 hours. If the targeted animal(s) cannot be captured within 72 hours of the commencement of trapping activities, such activities will cease and be replaced by a monitoring program to ascertain the status of the animal(s). Further attempts to remove the subject animal(s) will be based on this monitoring. If ferrets are discovered at the site of a proposed commercial operation, then mitigation in the form of: delay of activities, movement of ferret(s), offsite prairie dog habitat development, redesign of activities, or any combination of the above will be required. The course of events chosen will be determined cooperatively by the operator, UDWR, the USFWS, and land management agencies. Exception: Retrofitting of existing poles and towers to raptor proof standards will not be required. Maintenance or construction of previously existing or permitted operations can continue. Ephemeral surface disturbance (disturbance in prairie dog habitat for less than six months, after which it again becomes or can be made suitable for prairie dog use), such as prescribed fire or herbicide treatment, may be conducted within 1/8 mile of the boundary of the home range of a female from March 1 to May 1. In general, the disturbance should be completed before the critical period begins. The USFWS, UDWR, and the land management agencies will determine if this exemption applies. Normal travel and surveying activities will not be restricted. Modification: None Waiver: None
UT-S-301	TIMING LIMITATION – SEASONAL WILDLIFE HABITAT In order to protect seasonal wildlife habitat, exploration, drilling, and other development activity will be allowed only during the period from April 16 to

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	November 30. This limitation does not apply to maintenance and operation of producing wells. Exception: Exceptions to this limitation in any year may be specifically approved in writing by the authorized officer of the BLM. Modification: None Waiver: None
UT-S-305	CONTROLLED SURFACE USE – NOXIOUS WEED Continue implementation of noxious weed and invasive species control actions in accordance with national guidance and local weed management plans, in cooperation with State, federal, affected counties, adjoining private land owners, and other partners or interests directly affected. Implement Standard Operating Procedures and Mitigation Measures for herbicide use as well as prevention measures for noxious and invasive plants identified in the Record of Decision Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States PEIS and associated documents. Exception: None Modification: None Waiver: None
UT-S-314	CONTROLLED SURFACE USE/TIMING LIMITATIONS – UTE LADIES’-TRESSSES (<i>SPIRANTHES DILUVIALIS</i>) In order to minimize effects to the federally threatened Ute ladies’-tresses, the Bureau of Land Management (BLM) in coordination with the U.S. Fish and Wildlife Service (Service), developed the following avoidance and minimization measures. Integration of and adherence to these measures will help ensure the activities carried out during oil and gas development (including but not limited to drilling, production, and maintenance) are in compliance with the Endangered Species Act (ESA). Ute ladies’-tresses habitat is provided some protection under Executive Orders 11990 (wetland protection) and 11988 (floodplain management), as well as section 404 of the Clean Water Act. For the purposes of this document, the follow terms are so defined: • <i>Potential habitat</i> is defined as areas that satisfy the broad criteria of the species habitat description; usually determined by preliminary, in-house assessment. • <i>Suitable habitat</i> is defined as areas which contain or exhibit the specific components or constituents necessary for plant persistence; determined by field inspection and/or surveys; may or may not contain Ute Ladies’-tresses; habitat descriptions can be found in Federal Register Notice and species recovery plan links at http://www.fws.gov/endangered/wildlife.html. • <i>Occupied habitat</i> is defined as areas currently or historically known to support Ute Ladies’-tresses; synonymous with “known habitat.”

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	Although plants, habitat, or populations may be afforded some protection under these regulatory mechanisms, the following conservation measures should be included in the Plan of Development: 1. Pre-project habitat assessments will be completed across 100% of the project disturbance area, including areas where hydrology might be affected by project activities, within potential habitat prior to any ground disturbing activities to determine if suitable Ute ladies'-tresses habitat is present. 2. Within suitable habitat site inventories will be conducted to determine occupancy. Inventories: a. Must be conducted by qualified individual(s) and according to BLM and Service accepted survey protocols, b. Will be conducted in suitable and occupied habitat for all areas proposed for surface disturbance or areas that could experience direct or indirect changes in hydrology from project activities, c. Will be conducted prior to initiation of project activities and within the same growing season, at a time when the plant can be detected, and during appropriate flowering periods (usually August 1st and August 31st in the Uintah Basin; however, surveyors should verify that the plant is flowering by contacting a BLM or FWS botanist or demonstrating that the nearest known population is in flower), d. Will occur within 300' from the centerline of the proposed right-of-way for surface pipelines or roads; and within 300' from the perimeter of disturbance for the proposed well pad including the well pad, e. Will include, but not be limited to, plant species lists, habitat characteristics, source of hydrology, and estimated hydroperiod, and f. Will be valid until August 1st the following year. 3. Design project infrastructure to minimize direct or indirect impacts to suitable habitat both within and downstream of the project area: a. Alteration and disturbance of hydrology will not be permitted, b. Reduce well pad size to the minimum needed, without compromising safety, c. Limit new access routes created by the project, d. Roads and utilities should share common right-of-ways where possible, e. Reduce width of right-of-ways and minimize the depth of excavation needed for the road bed, f. Construction and right-of-way management measures should avoid soil compaction that would impact Ute ladies'-tresses habitat, g. Off-site impacts or indirect impacts should be avoided or minimized (i.e. install berms or catchment ditches to prevent spilled materials

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	from reaching occupied or suitable habitat through either surface or groundwater), h. Place signing to limit off-road travel in sensitive areas, i. Stay on designated routes and other cleared/approved areas, and j. All disturbed areas will be re-vegetated with species approved by FWS and BLM botanists. 4. Within occupied habitat project infrastructure will be designed to avoid direct disturbance and minimize indirect impacts to populations and to individual plants: a. Follow the above (3.) recommendations for project design within suitable habitats, b. Buffers of 300' minimum between right of way (roads and surface pipelines) or surface disturbance (well pads) and plants and populations will be incorporated, c. Surface pipelines will be laid such that a 300' buffer exists between the edge of the right of way and the plants, using stabilizing and anchoring techniques when the pipeline crosses habitat to ensure the pipelines don't move towards the population, d. Before and during construction, areas for avoidance should be visually identifiable in the field, e.g., flagging, temporary fencing, rebar, etc., e. Where technically and economically feasible, use directional drilling or multiple wells from the same pad, f. Designs will avoid altering site hydrology and concentrating water flows or sediments into occupied habitat, g. Place produced oil, water, or condensate tanks in centralized locations, away from occupied habitat, with berms and catchment ditches to avoid or minimize the potential for materials to reach occupied or suitable habitat, and h. Minimize the disturbed area of producing well locations through interim and final reclamation. Reclaim well pads following drilling to the smallest area possible. 5. Occupied Ute ladies'-tresses habitats within 300' of the edge of the surface pipelines' right-of-ways, 300' of the edge of the roads' right-of-ways, and 300' from the edge of the well pad shall be monitored for a period of three years after ground disturbing activities. Monitoring will include annual plant surveys to determine plant and habitat impacts relative to project facilities. Habitat impacts include monitoring any changes in hydrology due to project related activities. Annual reports shall be provided to the BLM and the Service. To ensure desired results are being achieved, minimization measures will be evaluated and may be changed after a thorough review of the monitoring results and annual reports during annual meetings between the BLM and the Service.

Stipulation	Description/Purpose
	6. Re-initiation of section 7 consultation with the Service will be sought immediately if any loss of plants or occupied habitat for the Ute ladies'-tresses 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. Exception: None Modification: None Waiver: None
UT-S-317	UNIT JOINDER – DESERET UNIT UTU89823X The successful bidder will be required to join the Deseret Unit Agreement or show reason why a joinder should not be required.
UT-S-317	UNIT JOINDER – HATCH POINT UNIT UTU73349X The successful bidder will be required to join the Hatch Point Unit Agreement or show reason why a joinder should not be required.
UT-S-317	UNIT JOINDER – THREEMILE UNIT UTU84722X The successful bidder will be required to join the Threemile Unit Agreement or show reason why a joinder should not be required.
UT-S-317	UNIT JOINDER – LA SAL UNIT UTU87718X The successful bidder will be required to join the La Sal Unit Agreement or show reason why a joinder should not be required.
UT-S-325	TIMING LIMITATION – RAPTOR NEST SITES Restrict surface disturbing activities within ½ mile around special status raptor species nest sites during the following time periods: Mar 1–Aug 1: Ferruginous hawk Mar 1–Aug 15: N. Goshawk Restrict surface disturbing activities within ¼ mile around special status raptor species nest sites during the following time periods: Mar 1–Aug 1: Short-eared owl Mar 1–Aug 31: Burrowing owl Exception: An exception could be granted if surveys determine that nesting sites 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: A waiver may be granted if it is determined the habitat no longer exists or has been destroyed.

Stipulation	Description/Purpose
UT-S-326	NO SURFACE OCCUPANCY – LOWER GREEN RIVER EXPANSION No Surface Occupancy will be allowed within line of sight or up to one-half mile from the centerline of the river, whichever is less. Exception: An exception will be granted if the disturbance complemented recreational goals and objectives. 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

Stipulation	Description/Purpose
	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.

Stipulation	Description/Purpose
UT-S-347	NO SURFACE OCCUPANCY – GREATER SAGE-GROUSE PRIORITY HABITAT MANAGEMENT AREAS No surface occupancy within Greater Sage-Grouse Priority Habitat Management Areas (PHMA). Exception: The Authorized Officer with concurrence with the State Director, may grant an exception only where the proposed action: i. Would not have direct, indirect, or cumulative effects on GRSG or its habitat; OR, ii. Is proposed to be undertaken as an alternative to a similar action occurring on a nearby parcel, and would provide a clear conservation gain to GRSG. The conservation gain must include measures, such as enforceable institutional controls and buffers, sufficient to allow the BLM to conclude that such benefits will endure for the duration of the proposed action’s impacts. The Authorized Officer may not grant an exception unless the applicable state wildlife agency, the USFWS, and the BLM unanimously find that the proposed action satisfies (i) or (ii). Such finding shall initially be made by a team of one field biologist or other GRSG expert from each respective agency. In the event the initial finding is not unanimous, the finding may be elevated to the appropriate BLM State Director, USFWS State Ecological Services Director, and state wildlife agency head for final resolution. In the event their finding is not unanimous, the exception will not be granted. Approved exceptions will be made publically available at least quarterly. Modification: None Waiver: None
UT-S-348	NO SURFACE OCCUPANCY/CONTROLLED SURFACE USE – GREATER SAGE-GROUSE DISTURBANCE CAP Manage discrete anthropogenic disturbances, whether temporary or permanent, so they cover less than 3 percent on all lands (regardless of land ownership) at each level: 1) PHMA associated with a GRSG population area (referred to as biologically significant units {BSU} when coordinating across state lines) and 2) within the proposed project analysis area to protect PHMA and the life-history needs of GRSG from habitat loss and GRSG populations from disturbance and limit fragmentation in PHMA. This would only be applicable to new fluid minerals leases if the exception criteria identified for the NSO stipulation above (UT-S-347 GRSG) were granted. See Appendix E of the GRSG Approved RMP Amendment for disturbance calculation instructions. Exception: None Modification: None Waiver: None *This would only be applicable to new fluid minerals leases if the exception criteria identified for the NSO stipulation above were granted.

Stipulation	Description/Purpose
UT-S-349	NO SURFACE OCCUPANCY/CONTROLLED SURFACE USE – GREATER SAGE-GROUSE DENSITY LIMITATION Limit the density of energy and mining facilities within Priority Habitat Management Areas (PHMA) during project authorization to an average of one energy/mineral facility per 640 acres on all lands (regardless of land ownership) in PHMA within a proposed project analysis area to protect PHMA and the life-history needs of GRSB from habitat loss and limit fragmentation in PHMA. This would only be applicable to new fluid minerals leases if the exception criteria identified for the NSO stipulation above (UT-S-347 GRSB) were granted. See Appendix E of the GRSB Approved RMP Amendment for calculation details. Exception: None Modification: None Waiver: None *This would only be applicable to new fluid minerals leases if the exception criteria identified for the NSO stipulation above were granted.
UT-S-350	CONTROLLED SURFACE USE/TIMING LIMITATION – GREATER SAGE-GROUSE BREEDING SEASON NOISE LIMITATIONS Limit noise from discrete anthropogenic disturbances within Priority Habitat Management Areas (PHMA), including activities from construction, operation and maintenance, to below 10 decibels above ambient sound levels (baseline as available at the signing of the GRSB RMP Amendment ROD or as first measured thereafter) at occupied leks from 2 hours before to 2 hours after official sunrise and sunset during breeding season to protect strutting Greater Sage-Grouse from auditory disturbance associated with development during the breeding season. AND Limit project related noise in other PHMA habitats and seasons where it would be expected to reduce functionality of habitats that support associated GRSB populations in order to protect GRSB from direct disturbance near leks within PHMA. Exception: None Modification: As additional research and information emerges, specific new limitations appropriate to the type of projects being considered would be evaluated and appropriate measures would be implemented where necessary to minimize potential for noise impacts on PHMA GRSB population behavioral cycles. Waiver: None *This would only be applicable to new fluid minerals leases if the exception criteria identified for the NSO stipulation above were granted.
UT-S-352	CONTROLLED SURFACE USE – GREATER SAGE-GROUSE TALL STRUCTURES Limit the placement of permanent tall structures** within Priority Habitat Management Areas (PHMA) breeding and nesting habitats to minimize placement

Stipulation	Description/Purpose
	of structures that introduction of e new perching and/or nesting opportunities for avian predators. Exception: None Modification: None Waiver: None *This would only be applicable to new fluid minerals leases if the exception criteria identified for the NSO stipulation above were granted. **For the purposes of this restriction, a tall structure is any man-made structure that provides for perching/nesting opportunities for predators (e.g., raptors and ravens) that are naturally absent, or that decreases the use of an area by GRSG. A determination as to whether something is considered a tall structure will be made based on local conditions such as existing vegetation or topography.
UT-S-353	TIMING LIMITATION – GREATER SAGE-GROUSE BREEDING, NESTING AND EARLY BROOD REARING Manage uses to prevent disturbance to GRSG populations and habitat by applying seasonal restrictions (e.g., no surface disturbance) between Feb 15 – June 15, in Greater Sage-Grouse Priority Habitat Management Areas (PHMA) breeding, nesting, and early brood-rearing habitat to seasonally protect those habitats from disruptive activity. Exception: None Modification: Specific time and distance determinations would be based on site-specific conditions and may be modified due to documented local variations (e.g., higher/lower elevations) or annual climactic fluctuations (e.g., early/late spring, long and/or heavy winter) in order to better protect GRSG, in coordination with the appropriate State of Utah agency. Waiver: None *This would only be applicable to new fluid minerals leases if the exception criteria identified for the NSO stipulation above were granted.
UT-S-354	TIMING LIMITATION – GREATER SAGE-GROUSE BROOD-REARING Manage uses to prevent disturbance to GRSG populations and habitat by applying seasonal restrictions (e.g., no surface disturbance) between April 15 – August 15 in the Greater Sage-Grouse (GRSG) Priority Habitat Management Areas (PHMA) brood-rearing habitat to seasonally protect that habitat from disruptive activity. Exception: None Modification: Specific time and distance determinations would be based on site-specific conditions and may be modified due to documented local variations (e.g., higher/lower elevations) or annual climactic fluctuations (e.g., early/late spring, long and/or heavy winter) in order to better protect GRSG, in coordination with the appropriate State of Utah agency. Waiver: None

Stipulation	Description/Purpose
	*This would only be applicable to new fluid minerals leases if the exception criteria identified for the NSO stipulation above were granted.
UT-S-355	TIMING LIMITATION – GREATER SAGE-GROUSE WINTER HABITAT Manage uses to prevent disturbance to GRSG populations and habitat by applying seasonal restrictions (e.g., no surface disturbance) between Nov 15 – March 15 in Priority Habitat Management Areas (PHMA) for Greater Sage-Grouse (GRSG) winter habitat to protect GRSG within PHMA from disruptive activity during the winter season. Exception: None Modification: Specific time and distance determinations would be based on site-specific conditions and may be modified due to documented local variations (e.g., higher/lower elevations) or annual climactic fluctuations (e.g., early/late spring, long and/or heavy winter) in order to better protect GRSG, in coordination with the appropriate State of Utah agency. Waiver: None *This would only be applicable to new fluid minerals leases if the exception criteria identified for the NSO stipulation above were granted.
UT-S-356	CONTROLLED SURFACE USE – GREATER SAGE-GROUSE INDIRECT IMPACTS FROM NOISE Areas outside of Priority Habitat Management Areas (PHMA), portions of the State of Utah’s opportunity areas within 4 miles of a lek that is located within PHMA will be subject to the following constraints: Limit noise from discrete anthropogenic disturbances (during construction, operation, or maintenance) so it will not exceed 10 decibels above ambient sound levels (baseline as available at the signing of the GRSG RMP Amendment ROD or as first measured thereafter) at occupied leks within PHMA from 2 hours before to 2 hours after official sunrise and sunset during breeding season (e.g., while males are strutting); AND Limit project related noise in other PHMA habitats and seasons where it would be expected to reduce functionality of habitats that support associated GRSG populations in order to protect GRSG from indirect disturbance near leks within PHMA. Exception: None Modification: As additional research and information emerges, specific new limitations appropriate to the type of projects being considered would be evaluated and appropriate measures would be implemented where necessary to minimize potential for noise impacts on PHMA GRSG population behavioral cycles. Waiver: None

Stipulation	Description/Purpose
UT-S-357	CONTROLLED SURFACE USE – GREATER SAGE-GROUSE INDIRECT IMPACTS FROM TALL STRUCTURES Areas outside of Priority Habitat Management Areas (PHMA), portions of the State of Utah’s opportunity areas within 4 miles of a lek that is located within PHMA will be subject to the following constraints: Limit the placement of permanent tall structures** adjacent to breeding and nesting habitats to minimize placement of structures that introduce new perching and/or nesting opportunities for avian predators. Exception: None Modification: None Waiver: None **For the purposes of this restriction, a tall structure is any man-made structure that provides for perching/nesting opportunities for predators (e.g., raptors and ravens) that are naturally absent, or that decreases the use of an area by GRSG. A determination as to whether something is considered a tall structure will be made based on local conditions such as existing vegetation or topography.
UT-S-358	CONTROLLED SURFACE USE – AIR QUALITY AND GREENHOUSE GASES All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower shall not emit more than 2 grams of NOx per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower. All new and replacement internal combustion gas field engines of greater than 300 design-rated horsepower must not emit more than 1 gram of NOx per horsepower-hour. Purpose: To protect air quality and minimize greenhouse gas emissions. Exception: None Modification: The Authorized Officer may modify the stated requirements in accordance with updated specifications to comply with the Clean Air Act, or as deemed necessary to ensure that the stipulation is sufficient to maintain air quality and protect air quality related values. Waiver: None
UT-S-359	CONTROLLED SURFACE USE – AIR QUALITY I All drilling and production operations are required to adhere to the following minimum standards: 1. Drill rig engines must meet Tier II or better standards, as necessary based on air quality conditions or projections, and consistent with the most stringent Environmental Protection Agency emissions standards that are in force at the time of installation or approval. 2. Stationary internal combustion engine standard of 2g NOx/bhp-hr for engines<300HP and 1g NOx/bhp-hr for engines >300 HP.

Stipulation	Description/Purpose
	3. Low bleed or no bleed pneumatic controller. 4. Dehydrator VOC emission controls to +95 percent efficiency. 5. Tank VOC emission controls to +95 percent efficiency equivalent to NSPS subpart 0000. Purpose: To mitigate any potential impact mineral development emissions may have on regional ozone formation. Exception: None Modification: The Authorized Officer may modify the stipulation as a result of new information if: 1) the protection provided by the stipulation is no longer justified or necessary to meet resource objectives established in the Moab MLP; 2) the protection provided by the stipulation is no longer sufficient to meet resource objectives established in the Moab MLP; or 3) proposed operations would not cause unacceptable impacts. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The modification may be subject to public review for at least a 30-day period. Waiver: None
UT-S-360	CONTROLLED SURFACE USE – AIR QUALITY II A Fugitive Dust Control Plan is required for mineral activities that would disturb a surface area larger than 0.25 acres or that would involve truck traffic on unpaved or untreated surfaces. Purpose: To minimize the generation of fugitive dust. Exception: None Modification: The Authorized Officer may modify the stipulation as a result of new information if: 1) the protection provided by the stipulation is no longer justified or necessary to meet resource objectives established in the Moab MLP; 2) the protection provided by the stipulation is no longer sufficient to meet resource objectives established in the Moab MLP; or 3) proposed operations would not cause unacceptable impacts. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The modification may be subject to public review for at least a 30-day period. Waiver: None
UT-S-362	NO SURFACE OCCUPANCY – COLORADO AND GREEN RIVER CORRIDORS No surface-disturbing activities within the area of the Three Rivers locatable mineral withdrawal, which includes suitable Wild and Scenic River (WSR) segments. Purpose: To protect riparian, wildlife, scenic, and recreational values along the major river corridors.

Stipulation	Description/Purpose
	Exception: None Modification: None Waiver: None
UT-S-364	CONTROLLED SURFACE USE – FILMING LOCATIONS A visual assessment is required within 1-mile of the high use filming locations listed below. This assessment must demonstrate that the proposed mineral operations within this area would not result in long-term impairment to the scenic quality from the filming locations. These filming locations include: • Needles Overlook • Colorado River Corridor and Corona Arch • Green River Canyon • Kane Creek Corridor • Looking Glass Rock • View from Dead Horse Point • Potash Road/Shافر Basin (including Fossil Point) • Long Canyon • Highway 211 (including Newspaper Rock) • Highway 313 • Mineral Bottom Road • Behind the Rocks Jeep Route • Monitor and Merrimac/Determination Towers/Mill Canyon/Bartlett Wash • Gemini Bridges/Bull Canyon • Jewell Tibbetts Arch • White Wash. Purpose: To protect the immediate foreground of high use filming locations. Exception: The Authorized Officer may grant an exception if a visual assessment demonstrates that the proposed mineral operations would not result in long-term impairment to the scenic quality from the filming location. Modification: The Authorized Officer may modify the stipulation if a filming location ceases to be utilized or if a new location becomes heavily used. Waiver: The Authorized Officer may waive the stipulation if the film industry ceases to utilize the area for filming.
UT-S-365	CONTROLLED SURFACE USE – LANDS WITH WILDERNESS CHARACTERISTICS Mineral operations are subject to the following requirements: 1. Multiple wells per pad as appropriate. 2. Well pads would be placed no closer than 2-miles apart.

Stipulation	Description/Purpose
	3. Oil and Gas: Production facilities would be co-located and designed to minimize surface impacts. Pipelines and utilities would be placed within or immediately adjacent to existing roads. 4. Limit unreclaimed surface disturbance to no more than 15 acres per well pad (including associated facilities, roads, pipelines, and utilities) following interim reclamation. 5. Extensive interim reclamation of roadway disturbance and reclamation of well pads to minimize long-term surface disturbance. 6. Final reclamation fully restoring the original landform. Travel routes would be restored to their original character. 7. This stipulation would allow for geophysical operations. 8. Compensatory mitigation outside the area of impact could be required to minimize impacts to resources. These requirements apply to the following lands identified by the BLM in the 2008 Resource Management Plan (RMP) as having wilderness characteristics: • Arches Adjacent • Behind the Rocks • Bridger Jack Mesa • Dead Horse Cliffs • Dome Plateau (partial) • Fisher Towers • Goldbar • Gooseneck • Hatch/Lockhart/Hart • Hatch Wash • Horsethief Point • Hunter Canyon • Indian Creek • Labyrinth Canyon • Lost Spring Canyon • Negro Bill Canyon • Shafer Canyon • Shay Mountain • Yellowbird. Purpose: To minimize the amount of surface disturbance and related impacts resulting from mineral development in areas with sensitive resources.

Stipulation	Description/Purpose
	Exception: Where it can be shown that the proposed operation would not cause unacceptable impacts, the Authorized Officer may grant an exception based on any of the factors listed below: a. If alternative placement of well pads would enable the operator to use areas that have been previously disturbed. b. If alternative placement of well pads would minimize the need for new road construction. c. If there is a demonstrated reduction in the impacts to resources. d. If there is a valid safety concern. e. If the requirement of 2-mile spacing would preclude a lessee/operator from exercising their lease rights where the spacing would locate a well pad outside of the lease. f. An exception to the 2-mile placement could be granted if the proponent successfully demonstrates that geologic factors preclude access to a substantial portion of the oil and gas reservoir. An exception to the 2-mile placement would still require the maximum technologically feasible placement of oil and gas wells. Modification: The Authorized Officer may modify the stipulation as a result of new information if: 1) the protection provided by the stipulation is no longer justified or necessary to meet resource objectives established in the Moab MLP; 2) the protection provided by the stipulation is no longer sufficient to meet resource objectives established in the Moab MLP; or 3) proposed operations would not cause unacceptable impacts. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The modification may be subject to public review for at least a 30-day period. Waiver: The Authorized Officer may waive the stipulation if it is determined that the factors leading to its inclusion in the lease no longer exist. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The waiver may be subject to public review for at least a 30-day period.
UT-S-370	CONTROLLED SURFACE USE – PALEONTOLOGY Surveys and monitoring (where appropriate) are required for all surface-disturbing mineral activities in PFYC Class 4 and 5 areas. Where monitoring encounters vertebrate and vertebrate trace fossils during mineral operations, all operations must cease until the BLM determines whether the site can be avoided, protected, or fully excavated. Purpose: To protect paleontological resources. Exception: None Modification: The Authorized Officer could modify the stipulation if it is determined that the project area is not located within a PFYC Class 4 or 5 area.

Stipulation	Description/Purpose
	Waiver: The Authorized Officer could waive the stipulation if it is determined that the entire lease area is not located within a PFYC Class 4 or 5 area.
UT-S-372	NO SURFACE OCCUPANCY – RECREATION (HIGH USE RECREATION ROUTES AND TRAILS) No surface occupancy allowed within 0.5-miles of the centerline of the following high use motorized routes (jeep) and non-motorized trails (hiking and bicycle): Motorized routes • Metal Masher (Arth’s Rim) jeep route • Gold Bar Rim jeep route • Golden Spike jeep route • Poison Spider jeep route • Cliffhanger jeep route • Chicken Corners jeep route • Moab Rim jeep route • Kane Creek jeep route • Lockhart jeep route • Seven Mile Rim jeep route Non-motorized trails • Klondike Bluffs bicycle trails • Bar M bicycle trails • Porcupine Rim trail • Magnificent Seven/7 Up bicycle trail systems • Ahab bicycle trails • Lower Monitor and Merrimac bicycle trail • Hunter Canyon hiking trail Purpose: To protect the recreation experience and to provide visual and auditory protection to the immediate foreground. Non-motorized trail users travel at slower speeds than motorized users; therefore, the buffers provided to protect the recreation experience vary by mode of travel. Exception: The Authorized Officer could grant an exception if a viewshed analysis indicates no long-term impairment to the immediate foreground view (0.5-miles) and it can be demonstrated that there would be no long-term auditory impairment to the trail or for access roads and pipelines if there are no practical alternatives. Modification: The Authorized Officer may modify the stipulation if it is determined that a trail, route, or a portion thereof, is no longer being utilized for recreation within the project area.

Stipulation	Description/Purpose
	Waiver: The Authorized Officer may waive the stipulation if it is determined that trails and routes are no longer utilized within the entire lease area.
UT-S-374	NO SURFACE OCCUPANCY – RECREATION (WESTERN PORTION OF THE CANYON RIMS SRMA) No surface occupancy allowed within visual resource management (VRM) Class II areas in the Canyon Rims SRMA, as well as to all lands on the west side of the Anticline Road. This includes the VRM Class II corridor along the Needles and Anticline Overlook roads. Purpose: To protect recreational uses and experiences. Exception: The Authorized Officer may grant an exception if it could be demonstrated using visual analysis that the proposed operation would not result in long-term visible impairment from Key Observation Points as defined by the BLM VRM Manual. Modification: The Authorized Officer may modify the stipulation as a result of new information if: 1) the protection provided by the stipulation is no longer justified or necessary to meet resource objectives established in the Moab MLP; 2) the protection provided by the stipulation is no longer sufficient to meet resource objectives established in the Moab MLP; or 3) proposed operations would not cause unacceptable impacts. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The modification may be subject to public review for at least a 30-day period. Waiver: The Authorized Officer may waive the stipulation if it is determined that the factors leading to its inclusion in the lease no longer exist. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The waiver may be subject to public review for at least a 30-day period.
UT-S-375	NO SURFACE OCCUPANCY – RECREATION (CANYON RIMS SRMA HATCH WASH FOCUS AREA) No surface occupancy allowed within the Hatch Wash Hiking and Backpacking Focus Area. Purpose: To protect recreational uses and experiences. Exception: The Authorized Officer may grant an exception if it is determined that the factors leading to its inclusion in the lease have changed sufficiently such that: 1) the protection provided by the stipulation is no longer justified or necessary to meet resource objectives established in the Moab MLP; or 2) proposed operations would not cause unacceptable impacts. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. Modification: The Authorized Officer may modify the stipulation as a result of new information if: 1) the protection provided by the stipulation is no longer

Stipulation	Description/Purpose
	justified or necessary to meet resource objectives established in the Moab MLP; 2) the protection provided by the stipulation is no longer sufficient to meet resource objectives established in the Moab MLP; or 3) proposed operations would not cause unacceptable impacts. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The modification may be subject to public review for at least a 30-day period. Waiver: The Authorized Officer may waive the stipulation if it is determined that the factors leading to its inclusion in the lease no longer exist. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The waiver may be subject to public review for at least a 30-day period.
UT-S-376	BASELINE CONTROLLED SURFACE USE – RECREATION (CANYON RIMS, LABYRINTH RIMS/GEMINI BRIDGES AND SOUTH MOAB SRMAs) Mineral operations outside the area designated as NSO are subject to the following requirements: - Multiple wells per pad as appropriate. - Well pads would be placed no closer than 2-miles apart. - Oil and Gas: Production facilities would be co-located and designed to minimize surface impacts. Pipelines and utilities would be placed within or immediately adjacent to existing roads. - Limit unreclaimed surface disturbance to no more than 15 acres per well pad (including associated facilities, roads, pipelines, and utilities) following interim reclamation. - Extensive interim reclamation of roadway disturbance and reclamation of well pads to minimize long-term surface disturbance. - Final reclamation fully restoring the original landform. Travel routes would be restored to their original character. - This stipulation would allow for geophysical operations. - Compensatory mitigation outside the area of impact could be required to minimize impacts to resources. Purpose: To minimize the amount of surface disturbance and related impacts resulting from mineral development in areas with sensitive resources. Exception: Where it can be shown that the proposed operation would not cause unacceptable impacts, the Authorized Officer may grant an exception based on any of the factors listed below: - If alternative placement of well pads would enable the operator to use areas that have been previously disturbed.

Stipulation	Description/Purpose
	b. If alternative placement of well pads would minimize the need for new road construction. c. If there is a demonstrated reduction in the impacts to resources. d. If there is a valid safety concern. e. If the requirement of 2-mile spacing would preclude a lessee/operator from exercising their lease rights where the spacing would locate a well pad outside of the lease. f. An exception to the 2-mile placement could be granted if the proponent successfully demonstrates that geologic factors preclude access to a substantial portion of the oil and gas reservoir. An exception to the 2-mile placement would still require the maximum technologically feasible placement of oil and gas wells. Modification: The Authorized Officer may modify the stipulation as a result of new information if: 1) the protection provided by the stipulation is no longer justified or necessary to meet resource objectives established in the Moab MLP; 2) the protection provided by the stipulation is no longer sufficient to meet resource objectives established in the Moab MLP; or 3) proposed operations would not cause unacceptable impacts. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The modification may be subject to public review for at least a 30-day period. Waiver: The Authorized Officer may waive the stipulation if it is determined that the factors leading to its inclusion in the lease no longer exist. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The waiver may be subject to public review for at least a 30-day period.
UT-S-382	CONTROLLED SURFACE USE – SOIL (SALINE SOILS WITHIN THE MANCOS SHALE) No surface-disturbing activities would be allowed during the period from December 1 to May 31. This restriction includes heavy equipment traffic on existing roads associated with drilling operations. This restriction does not apply to PPFAs. Purpose: To minimize watershed damage including compaction, rutting, and topsoil loss on saline soils derived primarily from the Mancos Shale. Exception: The Authorized Officer may grant an exception 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: The Authorized Officer may modify the stipulation if it is determined that the project area is not located within saline soils.

Stipulation	Description/Purpose
	Waiver: The Authorized Officer may waive the stipulation if areas mapped as saline soils are verified as not present on the entire leasehold.
UT-S-383	CONTROLLED SURFACE USE – SOIL (SALINE SOILS) Compensatory mitigation outside the area of impact for any surface disturbance on saline soils is required. No more than one acre of mitigation would be required for each acre of disturbance. Compensatory mitigation outside the area of impact could include: 1) reclamation of non-designated roads and 2) planting and seeding in appropriate areas to improve soil condition. Purpose: To consider mitigation for saline soils outside the area of impact because it may not be feasible or practical to mitigate impacts to an acceptable level in the same area as the use authorization. Exception: The Authorized Officer may grant an exception if it can be demonstrated that it would be feasible to fully mitigate the impacts to saline soils onsite. Modification: The Authorized Officer may modify the stipulation if it is determined that the project area is not located within saline soils. Waiver: The Authorized Officer may waive the stipulation if areas mapped as saline soils are verified as not present on the entire leasehold.
UT-S-384	CONTROLLED SURFACE USE – SOIL (STEEP SLOPES) An erosion control plan approved by the BLM is required on slopes greater than 21 percent prior to construction and maintenance if these activities cannot be avoided. The plan would include the following: 1) an erosion control strategy; and 2) a BLM-accepted access road and well pad survey and design. Purpose: To minimize soil erosion, sedimentation, soil compaction, runoff and associated loss of soil productivity. Exception: The Authorized Officer may grant an exception if it is determined that the factors leading to its inclusion in the lease have changed sufficiently such that: 1) the protection provided by the stipulation is no longer justified or necessary to meet resource objectives established in the Moab MLP; or 2) proposed operations would not cause unacceptable impacts. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. Modification: The Authorized Officer may modify the stipulation if it is determined that the project area does not contain slopes greater than 21 percent. Waiver: The Authorized Officer may waive the stipulation if it is verified that steep slopes are not present on the entire leasehold.
UT-S-386	NO SURFACE OCCUPANCY – WATER (WATER RESOURCES) No surface occupancy allowed within public water reserves, 100-year floodplains, and within 500 feet of intermittent and perennial streams, rivers, riparian areas, wetlands, water wells, and springs.

Stipulation	Description/Purpose
	Purpose: To protect public water reserves, 100-year floodplains, intermittent and perennial streams, rivers, springs, wetlands, riparian areas, and water wells. Exception: The Authorized Officer may grant an exception only for access roads and pipelines if: a) there are no practical alternatives; b) impacts could be fully mitigated; and c) proposed operations would not result in unacceptable impacts. Modification: The Authorized Officer may modify the stipulation if it is determined that the project area no longer contains a public water reserve, 100-year floodplains, intermittent and perennial streams, rivers, springs, wetlands, riparian areas, or water wells. Waiver: The Authorized Officer may waive the stipulation if public water reserves, 100-year floodplains, intermittent and perennial streams, rivers, springs, wetlands, riparian areas, or water wells are not present on the entire leasehold.
UT-S-387	NO SURFACE OCCUPANCY – WATER (EPHEMERAL STREAMS) No surface occupancy allowed within 100 feet of ephemeral streams. Purpose: To protect ephemeral streams. Exception: The Authorized Officer may grant an exception if: a) there are no practical alternatives; b) impacts could be fully mitigated; and c) proposed operations would not result in unacceptable impacts. Modification: The Authorized Officer may modify the stipulation if it is determined that the project area does not contain an ephemeral stream. Waiver: The Authorized Officer may waive the stipulation if ephemeral streams are verified as not present on the entire leasehold.
UT-S-395	CONTROLLED SURFACE USE – OLD SPANISH TRAIL (HIGH POTENTIAL SITES AND SEGMENTS) A visual assessment of lands within 2-miles of three high potential sites along the OSNHT (Kane Springs, Looking Glass Rock, and Colorado River Crossing near Moab) is required. A proposed mineral operation must not attract the attention of the casual observer from the OSNHT. A visual assessment of lands within 2-miles of two high potential segments along the OSNHT (Moab Trail and Mule Shoe) is required. A proposed mineral operation would not result in long-term impairment of the OSNHT viewshed from the perspective of the casual observer from the OSNHT. A visual assessment of lands within 2-miles of the south side of the Blue Hills high potential segment along the OSNHT is required. A proposed mineral operation would not result in long-term impairment of the OSNHT viewshed from the perspective of the casual observer from the OSNHT. The existing Class B roads that cross the stipulated area could be utilized as a corridor for the transportation of potash (either by pipeline or truck) from a PLA to a PPFA and are not subject to this stipulation. Purpose: To protect the setting along high potential sites and segments of the OSNHT.

Stipulation	Description/Purpose
	Exception: The Authorized Officer may grant an exception if the proposed project is not within view of a high potential site or segment as stipulated. Modification: The Authorized Officer may modify the stipulation to match any changes based on updated information. Waiver: The Authorized Officer may waive the stipulation if it is determined that high potential sites and segments of the OSNHT do not exist within the lease area.
UT-S-399	CONTROLLED SURFACE USE – VEGETATION (SAGEBRUSH/STEPPE HABITAT) Mineral operations are subject to the following requirements: - Multiple wells per pad as appropriate. - Well pads would be placed no closer than 2-miles apart. - Oil and Gas: Production facilities would be co-located and designed to minimize surface impacts. Pipelines and utilities would be placed within or immediately adjacent to existing roads. - Limit unreclaimed surface disturbance to no more than 15 acres per well pad (including associated facilities, roads, pipelines, and utilities) following interim reclamation. - Extensive interim reclamation of roadway disturbance and reclamation of well pads to minimize long-term surface disturbance. - Final reclamation fully restoring the original landform. Travel routes would be restored to their original character. - This stipulation would allow for geophysical operations. - Compensatory mitigation outside the area of impact could be required to minimize impacts to resources. Purpose: To minimize the amount of surface disturbance and related impacts resulting from mineral development in areas with sensitive resources Exception: Where it can be shown that the proposed operation would not cause unacceptable impacts, the Authorized Officer may grant an exception based on any of the factors listed below: - If alternative placement of well pads would enable the operator to use areas that have been previously disturbed. - If alternative placement of well pads would minimize the need for new road construction. - If there is a demonstrated reduction in the impacts to resources. - If there is a valid safety concern. - If the requirement of 2-mile spacing would preclude a lessee/operator from exercising their lease rights where the spacing would locate a well pad outside of the lease. - An exception to the 2-mile placement could be granted if the proponent successfully demonstrates that geologic factors preclude access to a substantial

Stipulation	Description/Purpose
	portion of the oil and gas reservoir. An exception to the 2-mile placement would still require the maximum technologically feasible placement of oil and gas wells. Modification: The Authorized Officer may modify the stipulation as a result of new information if: 1) the protection provided by the stipulation is no longer justified or necessary to meet resource objectives established in the Moab MLP; 2) the protection provided by the stipulation is no longer sufficient to meet resource objectives established in the Moab MLP; or 3) proposed operations would not cause unacceptable impacts. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The modification may be subject to public review for at least a 30-day period. Waiver: The Authorized Officer may waive the stipulation if it is determined that the factors leading to its inclusion in the lease no longer exist. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The waiver may be subject to public review for at least a 30-day period.
UT-S-401	CONTROLLED SURFACE USE – VISUAL RESOURCES (VR CLASS II AREAS DESIGNATED AS VRM CLASS III) Mineral operations are subject to the following requirements: - Multiple wells per pad as appropriate. - Well pads would be placed no closer than 2-miles apart. - Oil and Gas: Production facilities would be co-located and designed to minimize surface impacts. Pipelines and utilities would be placed within or immediately adjacent to existing roads. - Limit unreclaimed surface disturbance to no more than 15 acres per well pad (including associated facilities, roads, pipelines, and utilities) following interim reclamation. - Extensive interim reclamation of roadway disturbance and reclamation of well pads to minimize long-term surface disturbance. - Final reclamation fully restoring the original landform. Travel routes would be restored to their original character. - This stipulation would allow for geophysical operations. - Compensatory mitigation outside the area of impact could be required to minimize impacts to resources. Purpose: To minimize the amount of surface disturbance and related impacts resulting from mineral development in areas with sensitive resources Exception: Where it can be shown that the proposed operation would not cause unacceptable impacts, the Authorized Officer may grant an exception based on any of the factors listed below:

Stipulation	Description/Purpose
	a. If alternative placement of well pads would enable the operator to use areas that have been previously disturbed. b. If alternative placement of well pads would minimize the need for new road construction. c. If there is a demonstrated reduction in the impacts to resources. d. If there is a valid safety concern. e. If the requirement of 2-mile spacing would preclude a lessee/operator from exercising their lease rights where the spacing would locate a well pad outside of the lease. f. An exception to the 2-mile placement could be granted if the proponent successfully demonstrates that geologic factors preclude access to a substantial portion of the oil and gas reservoir. An exception to the 2-mile placement would still require the maximum technologically feasible placement of oil and gas wells. Modification: The Authorized Officer may modify the stipulation as a result of new information if: 1) the protection provided by the stipulation is no longer justified or necessary to meet resource objectives established in the Moab MLP; 2) the protection provided by the stipulation is no longer sufficient to meet resource objectives established in the Moab MLP; or 3) proposed operations would not cause unacceptable impacts. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The modification may be subject to public review for at least a 30-day period. Waiver: The Authorized Officer may waive the stipulation if it is determined that the factors leading to its inclusion in the lease no longer exist. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The waiver may be subject to public review for at least a 30-day period.
UT-S-404	NO SURFACE OCCUPANCY – VISUAL RESOURCES VRM II AREAS No surface occupancy allowed within VRM Class II areas. Purpose: To protect high quality visual resources. Exception: The Authorized Officer may grant an exception if it could be demonstrated using visual analysis that the proposed operation would not result in long-term visible impairment from key observation points as defined by the BLM VRM Manual. Modification: The Authorized Officer may modify the stipulation as a result of new information if: 1) the protection provided by the stipulation is no longer justified or necessary to meet resource objectives established in the Moab MLP; 2) the protection provided by the stipulation is no longer sufficient to meet resource objectives established in the Moab MLP; or 3) proposed operations would not cause unacceptable impacts. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or

Stipulation	Description/Purpose
	the public in order to make this determination. The modification may be subject to public review for at least a 30-day period. Waiver: The Authorized Officer may waive the stipulation if it is determined that the factors leading to its inclusion in the lease no longer exist. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The waiver may be subject to public review for at least a 30-day period.
UT-S-407	NO SURFACE OCCUPANCY – VISUAL RESOURCES – RIMLANDS OF THE GREEN AND COLORADO RIVERS No surface occupancy allowed within a 1-mile setback from the rims of the Colorado and Green Rivers. Purpose: To protect high quality visual resources along the rims of the Green and Colorado Rivers. Exception: The Authorized Officer may grant an exception if a viewshed analysis indicates no impairment of the visual resources of the rims from either the rims or from the rivers. Modification: The Authorized Officer may modify the stipulation as a result of new information if: 1) the protection provided by the stipulation is no longer justified or necessary to meet resource objectives established in the Moab MLP; 2) the protection provided by the stipulation is no longer sufficient to meet resource objectives established in the Moab MLP; or 3) proposed operations would not cause unacceptable impacts. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The modification may be subject to public review for at least a 30-day period. Waiver: The Authorized Officer may waive the stipulation if it is determined that the factors leading to its inclusion in the lease no longer exist. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The waiver may be subject to public review for at least a 30-day period.
UT-S-408	CONTROLLED SURFACE USE – AUDITORY MANAGEMENT-SOUNDSCAPE (LANDS BORDERING ARCHES AND CANYONLANDS NATIONAL PARKS) Operators are required to comply with the following within 6.1-miles (9,800 meters) of National Parks: Noise mitigation efforts will be implemented with a maximum level of 55 decibels for production equipment (measured from the direction of the Park at a distance of 350 feet from source). These sound levels could be achieved by replacement diesel engine exhaust silencers (mufflers) noise barriers, and other noise control measures.

Stipulation	Description/Purpose
	Purpose: To protect the soundscapes of the National Parks. Exception: None Modification: The Authorized Officer may modify the stipulation as a result of new information if: 1) the protection provided by the stipulation is no longer justified or necessary to meet resource objectives established in the Moab MLP; 2) the protection provided by the stipulation is no longer sufficient to meet resource objectives established in the Moab MLP; or 3) proposed operations would not cause unacceptable impacts. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The modification may be subject to public review for at least a 30-day period. Waiver: The Authorized Officer may waive the stipulation if it is determined that the factors leading to its inclusion in the lease no longer exist. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The waiver may be subject to public review for at least a 30-day period.
UT-S-411	TIMING LIMITATION – WILDLIFE (PRONGHORN FAWNING HABITAT) No surface-disturbing activities or occupancy allowed within pronghorn fawning habitat from May 1 to June 15. Purpose: To minimize stress and disturbance during critical pronghorn birthing time. Exception: The Authorized Officer may grant an exception if the operator submits a plan that demonstrates impacts from the proposed action can be adequately mitigated or if it is determined the habitat is not being utilized for fawning in any given year. This stipulation does not apply to the maintenance and operation of existing and ongoing facilities. Modification: The Authorized Officer may modify the stipulation if a portion of the area is not being used for fawning or if the habitat is being utilized outside of stipulation boundaries as crucial fawning habitat and needs to be protected. Waiver: The Authorized Officer may waive the stipulation if the fawning habitat is determined to be unsuitable or unoccupied and there is no reasonable likelihood of future use of the fawning habitat.
UT-S-412	CONTROLLED SURFACE USE – WILDLIFE (DESERT BIGHORN SHEEP LAMBING AND RUTTING HABITAT) Drilling operations and permanent facilities would not be allowed within desert bighorn sheep lambing and rutting habitat. Geophysical operations and the construction of roads and pipelines would be allowed during specified timeframes as follows: 1. Geophysical exploration would be allowed throughout the lambing and rutting habitat (except for source points in Mineral, Hell Roaring, Spring, and Ten

Stipulation	Description/Purpose
	Mile Canyons and 100 feet from their rims) if it occurred between June 16 and October 15 or December 15 through March 31. Receiver lines could be placed throughout the habitat. 2. Road construction necessary to exercise mineral lease rights and where no other access is feasible would be allowed throughout the habitat if the construction occurred between June 16 and October 15 or December 15 through March 31. Roads constructed for minerals within this habitat would not be available for public use. Furthermore, these roads would be reclaimed to a natural state at the conclusion of the project. 3. Pipeline construction and placement would be allowed throughout the lambing and rutting habitat if construction occurred between June 16 and October 15 or December 15 through March 31. Purpose: To minimize disturbance within desert bighorn lambing and rutting habitat. Exception: The Authorized Officer may grant an exception if it is determined that the factors leading to its inclusion in the lease have changed sufficiently such that: 1) the protection provided by the stipulation is no longer justified or necessary to meet resource objectives established in the Moab MLP; or 2) proposed operations would not cause unacceptable impacts. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. Modification: The Authorized Officer may modify the stipulation if a portion of the area is 1) not being used as desert bighorn lambing or rutting habitat and, 2) if habitat is being utilized outside of stipulation boundaries for lambing and rutting and needs to be protected. Waiver: A waiver may be granted if the habitat is determined as unsuitable for lambing or rutting and there is no reasonable likelihood of future use as desert bighorn sheep lambing and/or rutting habitat.
UT-S-413	CONTROLLED SURFACE USE – WILDLIFE (DESERT BIGHORN SHEEP AND DEER AND ELK CRUCIAL WINTER HABITAT) Mineral operations are subject to the following requirements: - Multiple wells per pad as appropriate. - Well pads would be placed no closer than 2-miles apart. - Oil and Gas: Production facilities would be co-located and designed to minimize surface impacts. Pipelines and utilities would be placed within or immediately adjacent to existing roads. - Limit unreclaimed surface disturbance to no more than 15 acres per well pad (including associated facilities, roads, pipelines, and utilities) following interim reclamation. - Extensive interim reclamation of roadway disturbance and reclamation of well pads to minimize long-term surface disturbance.

Stipulation	Description/Purpose
	6. Final reclamation fully restoring the original landform. Travel routes would be restored to their original character. 7. This stipulation would allow for geophysical operations. 8. Compensatory mitigation outside the area of impact could be required to minimize impacts to resources. Purpose: To minimize the amount of surface disturbance and related impacts resulting from mineral development in areas with sensitive resources Exception: Where it can be shown that the proposed operation would not cause unacceptable impacts, the Authorized Officer may grant an exception based on any of the factors listed below: a. If alternative placement of well pads would enable the operator to use areas that have been previously disturbed. b. If alternative placement of well pads would minimize the need for new road construction. c. If there is a demonstrated reduction in the impacts to resources. d. If there is a valid safety concern. e. If the requirement of 2-mile spacing would preclude a lessee/operator from exercising their lease rights where the spacing would locate a well pad outside of the lease. f. An exception to the 2-mile placement could be granted if the proponent successfully demonstrates that geologic factors preclude access to a substantial portion of the oil and gas reservoir. An exception to the 2-mile placement would still require the maximum technologically feasible placement of oil and gas wells. Modification: The Authorized Officer may modify the stipulation as a result of new information if: 1) the protection provided by the stipulation is no longer justified or necessary to meet resource objectives established in the Moab MLP; 2) the protection provided by the stipulation is no longer sufficient to meet resource objectives established in the Moab MLP; or 3) proposed operations would not cause unacceptable impacts. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The modification may be subject to public review for at least a 30-day period. Waiver: The Authorized Officer may waive the stipulation if it is determined that the factors leading to its inclusion in the lease no longer exist. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The waiver may be subject to public review for at least a 30-day period.
UT-S-420	CONTROLLED SURFACE USE/TIMING LIMITATION – RAPTOR EYRIES Drilling activities will not be allowed within one mile of active raptor eyries between March 1 – July 15 of each year.

Stipulation	Description/Purpose
	Exception: None Modification: None Waiver: None
UT-S-421	AIR QUALITY MONITORING Require applicants for projects or actions on Public Lands, which may change air quality, to establish an air quality monitoring program. Air quality should be monitored for a year prior to project initiation and during project operation by the applicants at their expense. Exception: None. Modification: None Waiver: None

Table 44 Utah Lease Notices

Notice	Description/Purpose
UT-LN-02	CRUCIAL WINTER MULE DEER AND ELK HABITAT The lessee/operator is given notice that lands in this lease have been identified as containing crucial mule deer and/or elk winter habitat. Exploration, drilling and other development activities would be restricted from December 1 through April 30 to protect crucial winter range. 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-05	CRUCIAL MOOSE CALVING HABITAT The lessee/operator is given notice that lands in this lease have been identified as containing crucial moose calving habitat. Exploration, drilling and other development activities would be restricted from May 1 through June 30 to protect moose calving.
UT-LN-07	CRUCIAL MOOSE CALVING HABITAT The lessee/operator is given notice that lands in this lease have been identified as containing crucial elk calving or deer fawning habitat. Exploration, drilling and other development activities would be restricted from May 1 through June 30 to protect antelope fawning.
UT-LN-09	CRUCIAL ELK CALVING AND DEER FAWNING HABITAT The lessee/operator is given notice that lands in this lease have been identified as containing crucial elk calving or deer fawning habitat. Exploration, drilling and other development activities may be restricted from May 15 through June 30 to protect calving / fawning. Modifications may be required in the Surface Use Plan of Operations including seasonal timing restrictions to protect the species and its habitat.

Notice	Description/Purpose
UT-LN-11	CRUCIAL ELK CALVING AND DEER FAWNING HABITAT The lessee/operator is given notice that lands in this lease have been identified as containing crucial elk calving or deer fawning habitat. Exploration, drilling and other development activities may be restricted from May 15 through June 30 to protect calving / fawning. Modifications may be required in the Surface Use Plan of Operations including seasonal timing restrictions to protect the species and its habitat.
UT-LN-14	PRONGHORN FAWNING HABITAT The lessee/operator is given notice that this lease has been identified as containing crucial pronghorn fawning habitat. No surface use or otherwise disruptive activity allowed from May 1 through June 29 within identified crucial/important pronghorn fawning habitat from disruptive activity. Modifications to the Surface Use Plan of Operations may be required in accordance with section 6 of the lease terms and 43 CFR 3101.1-2.
UT-LN-15	PRONGHORN FAWNING The lessee/operator is given notice that lands in this lease have been identified as containing antelope fawning habitat. Exploration, drilling and other development activities may be restricted from May 1 through June 15 to protect antelope fawning. Modifications may be required in the Surface Use Plan of Operations including seasonal timing restrictions to protect the species and its habitat.
UT-LN-16	PRONGHORN FAWNING HABITAT The lessee/operator is given notice that lands in this lease have been identified as containing antelope fawning habitat. Exploration, drilling and other development activities may be restricted from May 1 through June 29 to protect antelope fawning. Modifications may be required in the Surface Use Plan of Operations including seasonal timing restrictions to protect the species and its habitat.
UT-LN-20	ROCKY MOUNTAIN BIGHORN SHEEP The Lessee/Operator is given notice that the lands in this parcel contains habitat for Rocky Mountain bighorn sheep. Modifications to the surface use plan may be required in order to protect habitat from surface disturbing activities. These modifications may include such measures as timing restrictions to avoid surface use during the crucial lambing and rutting seasons. Measure may also include avoidance of certain areas such as water sources and talus slopes.
UT-LN-24	CRUCIAL MOOSE WINTER HABITAT The lessee/operator is given notice that lands in this lease have been identified as containing crucial moose winter habitat. Exploration, drilling and other development activities would be restricted from December 1 through April 30 to protect crucial winter range. Modifications to the Surface Use Plan of Operations may be required in accordance with section 6 of the lease terms and 43 CFR 3101.1-2.
UT-LN-25	WHITE-TAILED AND GUNNISON PRAIRIE DOG

Notice	Description/Purpose
	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-34	BALD EAGLE WINTER ROOST SITES The lessee/operator is given notice that this lease has been identified as containing bald eagle winter roost sites. No surface use or otherwise disruptive activity allowed from November 1 through March 31 which would disrupt bald eagle roosting activities within 0.5 mile of known roosts, unless the area has been surveyed according to protocol and determined to be unoccupied. No surface use or otherwise disruptive activity would be allowed which would result in an aboveground facility within 0.5 mile of known bald eagle winter roost areas. 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-36	BALD EAGLE HABITAT The Lessee/Operator is given notice that the lands in this parcel contains nesting/winter roost habitat for the bald eagle. Avoidance or use restrictions may be placed on all or portions of the lease. Application of appropriate measures will depend on whether the action is temporary or permanent, and whether it occurs within or outside the bald eagle breeding or roosting season. A temporary action is completed prior to the following breeding or roosting season leaving no permanent structures and resulting in no permanent habitat loss. A permanent action continues for more than one breeding or roosting season and/or causes a loss of eagle habitat or displaces eagles through disturbances, i.e. creation of a permanent structure.
UT-LN-37	BALD EAGLE HABITAT The lessee/operator is given notice that lands in this lease have been identified as containing Bald Eagle Habitat. Modifications to the Surface Use Plan of Operations may be required in order to protect the Bald Eagle and/or habitat from surface disturbing activities in accordance with Section 6 of the lease terms, Endangered Species Act, and 43 CFR 3101.1-2.
UT-LN-38	FERRUGINOUS HAWK NEST SITES The lessee/operator is given notice that this lease has been identified as containing ferruginous hawk nest sites. No surface use or otherwise disruptive activity allowed from March 1 through August 1 which would disrupt ferruginous hawk breeding activities within 0.5 mile of an occupied nest. No surface use or otherwise disruptive activity would be allowed which would result in an aboveground facility within 0.5 mile of known ferruginous hawk nests, which have been active within the past 3 years. 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-39	GOLDEN EAGLE NEST SITES

Notice	Description/Purpose
	The lessee/operator is given notice that this lease has been identified as containing golden eagle nest sites. No surface use or otherwise disruptive activity allowed from January 1 through August 31, which would disrupt golden eagle breeding activities within 0.5 mile of an occupied nest. No surface use or otherwise disruptive activity would be allowed which would result in an aboveground facility within 0.5 mile of known golden eagle nests, which have been active within the past 3 years. 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-40	GOLDEN EAGLE HABITAT The lessee/operator is given notice that lands in this lease have been identified as containing Golden Eagle Habitat. Modifications to the Surface Use Plan of Operations may be required in order to protect the Golden Eagle and/or habitat from surface disturbing activities in accordance with Section 6 of the lease terms, Endangered Species Act, and 43 CFR 3101.1-2.
UT-LN-42	BURROWING OWL HABITAT The lessee/operator is given notice that this lease has been identified as containing burrowing owl habitat. No surface use or otherwise disruptive activity allowed from March 1 through August 31 which would disrupt burrowing owl breeding activities within 0.25 mile of an occupied nest. No surface use or otherwise disruptive activity would be allowed which would result in an aboveground facility within 0.25 mile of known burrowing owl nests, which have been active within the past 3 years. 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 BIRDS

Notice	Description/Purpose
	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-50	HABITAT RESTORATION The lessee/operator is given notice that lands in this lease have an existing habitat restoration project present. Modifications to the Surface Use Plan of Operations may be required or other appropriate mitigation as deemed necessary by the BLM Authorized Officer.
UT-LN-51	SPECIAL STATUS PLANTS: NOT FEDERALLY LISTED The lessee/operator is given notice that lands in this lease have been identified as containing special status plants, not federally listed, and their habitats. Modifications to the Surface Use Plan of Operations may be required in order to protect the special status plants and/or habitat from surface disturbing activities in accordance with Section 6 of the lease terms, Endangered Species Act, and 43 CFR 3101.1-2.
UT-LN-52	NOXIOUS WEEDS The lessee/operator is given notice that lands in this lease have been identified as containing or is near areas containing noxious weeds. Best management practices to prevent or control noxious weeds may be required for operations on the lease.
UT-LN-53	RIPARIAN AREAS The lessee/operator is given notice that this lease has been identified as containing riparian areas. No surface use or otherwise disruptive activity allowed within 100 meters of riparian areas unless it can be shown that (1) there is no practicable alternative; (2) that all long-term impacts are fully mitigated; or (3) that the construction is an enhancement to the riparian areas. Modifications to the Surface Use Plan of Operations may be required in accordance with section 6 of the lease terms and 43CFR3101.1-2.

Notice	Description/Purpose
UT-LN-55	WATER AND WATERSHED PROTECTION The lessee/operator is given notice that this lease may need modifications to the Surface Use Plan of Operations in order to prevent water pollution and protect municipal and non-municipal watershed areas. No surface use or otherwise disruptive activity allowed within 500 feet of live water or the reservoirs located in the Beaver, Milford and Sevier River drainages, Parowan and Cedar Valley drainages, or Pinto Creek/Newcastle Reservoir drainage in order to prevent water quality degradation in accordance with section 6 of the lease terms and 43 CFR 3101.1-2.
UT-LN-56	DRINKING WATER SOURCE PROTECTION ZONE This lease (or a portion thereof) is within a public Drinking Water Source Protection zone. Before application for a permit to drill (APD) submittal or any proposed surface-disturbing activity, the lessee/operator must contact the public water system manager to determine any zoning ordinances, best management or pollution prevention measures, or physical controls that may be required within the protection zones. Drinking Water Source Protection plans are developed by the public water systems under the requirements of R309-600. Drinking Water Source Protection for Ground-Water Sources. (Utah Administrative Code). There may also be county ordinances in place to protect the source protection zones, as required by Section 19-4-113 of the Utah Code. Incorporated cities and towns may also protect their drinking water sources using Section 10-8-15 of the Utah Code. This part of the Code gives cities and towns the extraterritorial authority to enact ordinances to protect a source of drinking water ... "For 15 miles above the point from which it is taken and for a distance of 300 feet on each side of such stream..." Class I cities (greater than 100,000 population) are granted authority to protect their entire watersheds. Some public water sources qualify for monitoring waivers which reduce their monitoring requirements for pesticides and volatile organic chemicals (VOCs). Exploration, drilling, and production activities within Source Protection zone 3 could jeopardize these waivers, thus requiring increased monitoring. Contact the public water system to determine what effect your activities may have on their monitoring waivers. Please be aware of other State rules to protect surface and ground water: the Utah Division of Water Quality Rules R317 Water Quality Rules; and Rules of the Utah Division of Oil, Gas and Mining, Utah Oil and Gas Conservation Rules R649. At the time of development, drilling operators will additionally conform to the operational regulations in Onshore Oil & Gas Order No. 2 (which requires the protection and isolation of all usable quality waters, ? 10,000 mg/L Total Dissolved Solids), Onshore Oil and Gas Order No. 7 (which prescribes measures required for the handling of produced water to insure the protection of surface and ground water sources) and the Surface Operating Standards and Guidelines for Oil and Gas Development, The Gold Book, Fourth Edition-Revised 2007 (which provides information and requirements for conducting environmentally responsible oil and gas operations).

Notice	Description/Purpose
	Additional mitigation measures may be necessary to prevent adverse impacts from oil and gas exploration and development activities. Mitigation measures may include submitting an erosion control plan with best management practices (BMPs) that address rigorous interim reclamation which might include surface roughening, vegetative buffer strips, etc.; and sediment control through the use of sediment logs, silt fences, erosion control blankets, outlet/inlet protection of water control features such as culverts or diversion ditches, sediment traps, run on/run off pad design features. If project activities are close to sensitive areas or water sources a semi or closed-loop drilling system should be required.
UT-LN-57	PUBLIC WATER RESERVE The lessee/operator is given notice that lands in this lease have been identified as a designated Public Water Reserve. Surface occupancy or use is subject to the Public Water Reserve Executive Order No. 107. Modification to the Surface Use Plan of Operations may be required for the protection of the reserve up to and including no surface occupancy or use. Protection of a designated public water reserve as discussed in Public Water Reserve Executive Order No. 107. This limitation does not apply to operations and maintenance of producing wells.
UT-LN-58	DRINKING WATER PROTECTION ZONE The lessee/operator is given notice that this lease parcel overlaps a drinking water protection zone for public water sources in Utah. At the time of development, drilling operators will conform to the provisions of the operational regulations and Onshore Oil & Gas Order Number 2, which requires the protection and isolation of all useable quality waters.
UT-LN-59	ERODIBLE SOILS AND STEEP SOILS The lessee/operator is given notice that the area is a municipal or non-municipal watershed and has steep slopes and erosive soils. New roads will be constructed to avoid soils that are highly erosive and / or in critical or severe erosion conditions. New roads will be constructed with water bars. Riprap may be required. Road grades in excess of 8 percent will normally not be allowed. In special circumstances, where a road grade of more than 10 percent is allowed, its maximum length will be 1,000 feet. Access grading along with exploration, drilling, construction, or other activities will be prohibited during wet or muddy conditions (usually during spring runoff and summer monsoon rains). 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-60	STEEP SLOPES The lessee/operator is given notice that this lease has been identified as containing steep slopes. No surface use or otherwise disruptive activity allowed on slopes in excess of 30 percent without written permission from the Authorized Officer. Modifications to the Surface Use Plan of Operations may be required in accordance with section 6 of the lease terms and 43CFR3101.1-2.

Notice	Description/Purpose
UT-LN-61	SEVERE SOIL EROSION AND STEEP SLOPES The lessee/operator is given notice that the lands in this lease have been identified as having critical to severe soil erosion conditions and slopes exceeding 40%. The authorized officer may prohibit surface disturbing activities during wet and muddy periods to minimize watershed damage. Modifications to the Surface Use Plan of Operations may also be required. This limitation does not apply to operation and maintenance of producing wells.
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 statutes 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.

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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-83	SITE RIGHT-OF-WAY The lessee/operator is given notice that lands in this lease have an existing site ROW present. Modifications to the Surface Use Plan of Operations may be required or other appropriate mitigation as deemed necessary by the BLM Authorized Officer in order to protect the valid existing rights.
UT-LN-85	TAR SANDS AREA Section 350 of the Energy Policy Act of 2005, enacted August 8, 2005, and amended the Mineral Leasing Act to authorize the Secretary of Interior to issued oil and gas leases in special tar sand areas. Please be advised that all or part of this lease parcel lies within a Special Tar Sands Area. The successful bidder should be aware that special tar sands underlie this lease area. The authorized officer may modify the location or timing of oil and gas activities to provide for future tar sand development.
UT-LN-89	HORSESHOE MILKVETCH (ASTRAGALUS EQUISOLENSIS) In order to minimize effects to the federal candidate horseshoe milkvetch, the Bureau of Land Management (BLM) in coordination with the U.S. Fish and Wildlife Service (Service) developed the following avoidance and minimization measures. Integration of and adherence to these measures will help ensure the activities carried out during oil and gas development (including but not limited to drilling, production, and maintenance) will not result in a trend toward federal listing of the species. For the purposes of this document, the following terms are so defined: Potential habitat is defined as areas which satisfy the broad criteria of the species habitat description; usually determined by preliminary, in-house assessment. Suitable habitat is defined as areas which contain or exhibit the specific components or constituents necessary for plant persistence; determined by field inspection and/or surveys; may or may not contain horseshoe milkvetch; characteristics include sagebrush, shadscale, horsebrush, and other mixed desert shrub communities in Duchesne River Formation soils at 4,790 to 5,185 feet.

Notice	Description/Purpose
	Occupied habitat is defined as areas currently or historically known to support horseshoe milkvetch; synonymous with “known habitat.” The following avoidance and minimization measures should be included in the Plan of Development: 1. Pre-project habitat assessments will be completed across 100% of the project disturbance area within potential habitat prior to any ground disturbing activities to determine if suitable horseshoe milkvetch habitat is present. 2. Within suitable habitat, site inventories will be conducted to determine occupancy. Inventories: a. Must be conducted by qualified individual(s) and according to BLM and Service accepted survey protocols, b. Will be conducted in suitable and occupied habitat for all areas proposed for surface disturbance prior to initiation of project activities and within the same growing season, at a time when the plant can be detected (usually May 1st to June 5th in the Uintah Basin; however, surveyors should verify that the plant is flowering by contacting a BLM or FWS botanist or demonstrating that the nearest known population is in flower), c. Will occur within 300’ from the centerline of the proposed right-of-way for surface pipelines or roads; and within 300’ from the perimeter of disturbance for the proposed well pad including the well pad, d. Will include, but not be limited to, plant species lists and habitat characteristics, and e. Will be valid until May 1st the following year. 3. Design project infrastructure to minimize impacts within suitable habitat²: a. Reduce well pad size to the minimum needed, without compromising safety, b. Limit new access routes created by the project, c. Roads and utilities should share common right-of-ways where possible, d. Reduce the width of right-of-ways and minimize the depth of excavation needed for the road bed; where feasible, use the natural ground surface for the road within habitat, e. Place signing to limit off-road travel in sensitive areas, and f. Stay on designated routes and other cleared/approved areas. 4. Within occupied habitat, project infrastructure will be designed to avoid direct disturbance and minimize indirect impacts to populations and to individual plants: a. Follow the above (3.) recommendations for project design within suitable habitats, b. Construction of roads will occur such that the edge of the right of way is at least 300’ from any plant,

Notice	Description/Purpose
	c. Roads will be graveled within occupied habitat; the operator is encouraged to apply water for dust abatement to such areas from May 1st to June 5th (flowering period); dust abatement applications will be comprised of water only, d. The edge of the well pad should be located at least 300' away from plants, e. Surface pipelines will be laid such that a 300 foot buffer exists between the edge of the right of way and the plants, use stabilizing and anchoring techniques when the pipeline crosses suitable habitat to ensure pipelines don't move towards the population, f. Construction activities will not occur from May 1st through June 5th within occupied habitat, g. Before and during construction, areas for avoidance should be visually identifiable in the field, e.g., flagging, temporary fencing, rebar, etc., h. Where technically and economically feasible, use directional drilling or multiple wells from the same pad, i. Designs will avoid concentrating water flows or sediments into occupied habitat, j. Place produced oil, water, or condensate tanks in centralized locations, away from occupied habitat, and k. Minimize the disturbed area of producing well locations through interim and final reclamation. Reclaim well pads following drilling to the smallest area possible. 5. Occupied horseshoe milkvetch habitats within 300' of the edge of the surface pipelines' right of ways, 300' of the edge of the roads' right of ways, and 300' from the edge of the well pad shall be monitored for a period of three years after ground disturbing activities. Monitoring will include annual plant surveys to determine plant and habitat impacts relative to project facilities. Annual reports shall be provided to the BLM and the Service. To ensure desired results are being achieved, minimization measures will be evaluated and may be changed after a thorough review of the monitoring results and annual reports during annual meetings between the BLM and the Service. 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 coordination with the U.S. Fish and Wildlife Service.
UT-LN-90	GRAHAM'S BEARDTONGUE (PENSTEMON GRAHAMII) In order to minimize effects to the federally proposed Graham's beardtongue, the Bureau of Land Management (BLM) in coordination with the U.S. Fish and Wildlife Service (Service) developed the following avoidance and minimization measures. The following avoidance and minimization measures should be included in the Plan of Development: 1. Pre-project habitat assessments will be completed across 100% of the project disturbance area within potential habitat prior to any ground disturbing activities to determine if suitable Graham's beardtongue habitat is present.

Notice	Description/Purpose
	2. Within suitable habitat³, site inventories will be conducted to determine occupancy. Inventories: a. Must be conducted by qualified individual(s) and according to BLM and Service accepted survey protocols, b. Will be conducted in suitable and occupied habitat⁴ for all areas proposed for surface disturbance prior to initiation of project activities and within the same growing season, at a time when the plant can be detected (usually April 15th to May 20th in the Uintah Basin; however, surveyors should verify that the plant is flowering by contacting a BLM or FWS botanist or demonstrating that the nearest known population is in flower), c. Will occur within 300' from the centerline of the proposed right-of-way for surface pipelines or roads; and within 300' from the perimeter of disturbance for the proposed well pad including the well pad, d. Will include, but not be limited to, plant species lists and habitat characteristics, and e. Will be valid until April 15th the following year. 3. Design project infrastructure to minimize impacts within suitable habitat²: a. Reduce well pad size to the minimum needed, without compromising safety, b. Limit new access routes created by the project, c. Roads and utilities should share common right-of-ways where possible, d. Reduce the width of right-of-ways and minimize the depth of excavation needed for the road bed; where feasible, use the natural ground surface for the road within habitat, e. Place signing to limit off-road travel in sensitive areas, and f. Stay on designated routes and other cleared/approved areas. 4. Within occupied habitat⁴, project infrastructure will be designed to avoid direct disturbance and minimize indirect impacts to populations and to individual plants: a. Follow the above (3.) recommendations for project design within suitable habitats, b. Construction of roads will occur such that the edge of the right of way is at least 300' from any plant, c. Roads will be graveled within occupied habitat; the operator is encouraged to apply water for dust abatement to such areas from April 15th to May 20th (flowering period); dust abatement applications will be comprised of water only, d. The edge of the well pad should be located at least 300' away from plants, e. Surface pipelines will be laid such that a 300 foot buffer exists between the edge of the right of way and the plants, use stabilizing and anchoring techniques when the pipeline crosses the habitat (exposed raw shale knolls and

Notice	Description/Purpose
	slopes derived from the Parachute Creek and Evacuation Creek members of the geologic Green River Formation) to ensure pipelines don't move towards the population, f. Construction activities will not occur from April 15th through May 30th within occupied habitat, g. Before and during construction, areas for avoidance should be visually identifiable in the field, e.g., flagging, temporary fencing, rebar, etc., h. Where technically and economically feasible, use directional drilling or multiple wells from the same pad, i. Designs will avoid concentrating water flows or sediments into occupied habitat, j. Place produced oil, water, or condensate tanks in centralized locations, away from occupied habitat, and k. Minimize the disturbed area of producing well locations through interim and final reclamation. Reclaim well pads following drilling to the smallest area possible. 5. Occupied Graham's beardtongue habitats within 300' of the edge of the surface pipelines' right-of-ways, 300' of the edge of the roads' right-of-ways, and 300' from the edge of well pads shall be monitored for a period of three years after ground disturbing activities. Monitoring will include annual plant surveys to determine plant and habitat impacts relative to project facilities. Annual reports shall be provided to the BLM and the Service. To ensure desired results are being achieved, minimization measures will be evaluated and may be changed after a thorough review of the monitoring results and annual reports during annual meetings between the BLM and the Service. 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 conservation of the species.
UT-LN-91	WATER AND WATERSHED PROTECTION The lessee/operator is given notice that this lease may need modifications to the Surface Use Plan of Operations in order to prevent water pollution and protect municipal and non-municipal watershed areas. No surface use or otherwise disruptive activity allowed within 500 feet of a supply well in order to prevent water quality degradation in accordance with section 6 of the lease terms and 43CFR3101.1-2.
UT-LN-93	RESERVOIRS AND PERENNIAL STREAMS To protect reservoirs and perennial streams from unnecessary pollution and sedimentation, 43 CFR 3101.1-2 will be applied to prevent surface disturbance within 100 yards of the high water line of permanent water bodies.
UT-LN-96	AIR QUALITY MITIGATION MEASURES

Notice	Description/Purpose
	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, has developed the following air quality mitigation measures that may be applied to any development proposed on this lease. Integration of and adherence to these measures may help minimize adverse local or regional air quality impacts from oil and gas development (including but not limited to construction, drilling, and production) on regional ozone formation. • All internal combustion equipment would be kept in good working order. • Water or other approved dust suppressants would be used at construction sites and along roads, as determined appropriate by the Authorized Officer. • Open burning of garbage or refuse would not occur at well sites or other facilities. • Drill rigs would be equipped with Tier II or better diesel engines. • Vent emissions from stock tanks and natural gas TEG dehydrators would be controlled by routing the emissions to a flare or similar control device which would reduce emissions by 95% or greater. • Low bleed or no bleed pneumatics would be installed on separator dump valves and other controllers. • During completion, flaring would be limited as much as possible. Production equipment and gathering lines would be installed as soon as possible. • Well site telemetry would be utilized as feasible for production operations. • Stationary internal combustion engine would comply with the following standards: 2g NOx/bhp-hr for engines <300HP; and 1g NOx/bhp-hr for engines >300HP. Additional site-specific measures may also be employed to avoid or minimize effects to local or regional air quality. These additional measures will be developed and implemented in coordination with the U.S. Environmental Protection Agency, the Utah Department of Air Quality, and other agencies with expertise or jurisdiction as appropriate based on the size of the project and magnitude of emissions.
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: • Tier II or better drilling rig engines • Stationary internal combustion engine standard of 2g NOx/bhp-hr for engines <300HP and 1g NOx/bhp-hr for engines >300HP • Low bleed or no bleed pneumatic pump valves • Dehydrator VOC emission controls to +95% efficiency • Tank VOC emission controls to +95% efficiency

Notice	Description/Purpose
UT-LN-100	FRAGILE SOILS – MANCOS SHALE The lessee is given notice that these parcels fall within areas known to have Mancos shale and therefore operations and surface-disturbing activities are not allowed during December 1 to May 31 to minimize watershed damage including compaction, rutting, and topsoil loss on saline soils derived from the Mancos Shale. This restriction includes heavy equipment traffic on existing roads associated with drilling operations. 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 the project might be allowed. 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. 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-101	AIR QUALITY All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 grams of NOx per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower. AND All new and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 grams of NOx per horsepower-hour. 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-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 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.
UT-LN-104	BURROWING OWL HABITAT The lessee/operator is given notice that lands in this lease have been identified as containing Burrowing Owl Habitat. Modification to the Surface Use Plan of Operations may be required in order to protect the Burrowing Owl and/or habitat from surface disturbing activities in accordance with Section 6 of the lease terms, Endangered Species Act, and 43 CFR 3101.1-2.
UT-LN-106	SPECIAL RECREATION MANAGEMENT AREA The lessee/operator is given notice that lands in this lease have been identified as being within a Special Recreation Management Area. Modifications to the Surface Use Plan of Operations may be required in order once an activity plan is

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	prepared for the area to protect sensitive resources from surface disturbing activities in accordance with the Vernal RMP.
UT-LN-107	BALD EAGLE The Lessee/Operator is given notice that the lands in this parcel contains nesting/winter roost habitat for the bald eagle. The bald eagle was de-listed in 2007; however, it is still afforded protection under the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c, 1940). Therefore, avoidance or use restrictions may be placed on portions of the lease. Application of appropriate measures will depend on whether the action is temporary or permanent, and whether it occurs within or outside the bald eagle breeding or roosting season. A temporary action is completed prior to the following breeding or roosting season leaving no permanent structures and resulting in no permanent habitat loss. A permanent action continues for more than one breeding or roosting season and/or causes a loss of eagle habitat or displaces eagles 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 will not lead to the need to consider listing the eagle as threatened or endangered. Integration of, and adherence to the following measures will facilitate review and analysis of any submitted permits under the authority of this lease. Current avoidance and minimization measures include the following: 1. Surveys will be required prior to operations unless species occupancy and distribution information is complete and available. All Surveys must be conducted by qualified individual(s), and be conducted according to protocol. 2. Lease activities will require monitoring throughout the duration of the project. To ensure desired results are being achieved, minimization measures will 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 from 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

Notice	Description/Purpose
	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. 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 sale stage and lease development stage. These additional measures will be developed and implemented in coordination with the U.S. Fish and Wildlife Service.
UT-LN-113	WESTERN YELLOW-BILLED CUCKOO The Lessee/Operator is given notice that the lands in or adjacent to this parcel contain potentially suitable habitat that falls within the range for western yellow-billed cuckoo, a federally listed species. Avoidance or use restrictions may be placed on portions of the lease. Application of appropriate measures will depend upon whether the action is temporary or permanent, and whether it occurs within or outside the breeding and 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 could continue for more than one breeding season and/or cause a loss of habitat or displace western yellow-billed cuckoos through disturbances. 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. Avoidance and minimization measures include the following: 1. Habitat suitability within the parcel and/or within a 0.25 mile buffer of the parcel will be identified prior to lease development to identify potential survey needs. 2. Protocol Breeding Season Surveys will be required in suitable habitats prior to operations unless species occupancy and distribution information is complete and available. All Surveys must be conducted by permitted individual(s), and be conducted according to protocol. 3. For all temporary actions that may impact cuckoo or suitable habitat: a. If action occurs entirely outside of the cuckoo breeding season (June 1 – Aug 31), and leaves no structure or habitat disturbance, action can proceed without a presence/absence survey. b. If action is proposed between June 1 and August 31, presence/absence surveys for cuckoo will be conducted prior to commencing activity. If cuckoo are detected, activity should be delayed until September 1. c. Eliminate access routes created by the project through such means as raking out scars, revegetation, gating access points, etc. 4. For all permanent actions that may impact cuckoo or suitable habitat:

Notice	Description/Purpose
	a. Protocol level surveys by permitted individuals will be conducted prior to commencing activities. b. If cuckoos are detected, no activity will occur within 0.25 mile of occupied habitat. c. Avoid drilling and permanent structures within 0.25 mile of suitable habitat unless absence is determined according to protocol level surveys conducted by permitted individual(s). d. Ensure noise levels at 0.25 mile from suitable habitat do not exceed baseline conditions. Placement of permanent noise-generating facilities should be determined by a noise analysis to ensure noise does not encroach upon a 0.25 mile buffer for suitable habitat. 5. Temporary or permanent actions will require monitoring throughout the duration of the project to ensure that western yellow-billed cuckoo or its habitat is not affected in a manner or to an extent not previous considered. Avoidance and minimization measures will be evaluated throughout the duration of the project. 6. Water produced as a by-product of drilling or pumping will be managed to ensure maintenance or enhancement of riparian habitat. 7. 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. Ensure that such directional drilling does not intercept or degrade alluvial aquifers. 8. Ensure that water extraction or disposal practices do not result in change of hydrologic regime that would result in loss or degradation of riparian habitat. 9. Re-vegetate with native species all areas of surface disturbance within riparian areas and/or adjacent uplands. 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.
UT-LN-114	VIEWSHED, LIGHT AND SOUND (GREEN RIVER) In accordance with section 6 of the lease terms and 43 CFR 3101.1-2, modifications to Surface Use Plan of Operations, such as moving well locations, roads, pipelines, etc., may be required in order to preserve the immediate viewshed of recreational users of the nearby Green River. Also, the measures listed in Lease Notice 115 and any reasonable newly available technologies will be required in order to minimize light and noise impacts to recreational users of the Green River. The lessee/operator is encouraged to include all such measures in the Plans of Development, however, they will not be applicable when their implementation would adversely affect human health and safety.
UT-LN-115	LIGHT AND SOUND In accordance with the Vernal RMP Decision MIN-5, the BLM will seek to minimize light and sound pollution within the project area using the best available technology such as installation of multi-cylinder pumps, hospital sound reducing

Notice	Description/Purpose
	mufflers, and placement of exhaust systems to direct noise away from noise sensitive areas (e.g., sensitive habitat, campgrounds, river corridors, and Dinosaur National Monument). Light pollution will be mitigated by using methods such as limiting height of light poles, timing of lighting operations (meaning limiting lighting to times of darkness associated with drilling and work over or maintenance operations), limiting wattage intensity, and constructing light shields. If a determination is made that natural barriers or view sheds will meet these mitigation objectives, the above requirements may not apply.
UT-LN-120	ABANDONED MINE WORKINGS Abandoned Mine Working may be present in this lease parcel.
UT-LN-121	NO SURFACE OCCUPANCY – PL 97-98 – PRIME SOILS OF STATEWIDE SIGNIFICANCE These soil units are to be avoided, no surface occupancy until cleared by United States Department of Agriculture, Natural Resources Conservation Service (NRCS), as described in Public Law 97-98.
UT-LN-122	COLORADO OR BONNEVILLE CUTTHROAT TROUT HABITAT The lessee/operator is given notice that this lease has been identified as containing steep slopes adjacent to streams occupied by the Colorado or Bonneville Cutthroat Trout, a Utah Conservation Agreement Species. No surface use or otherwise disruptive activity allowed on slopes in excess of 30 percent from April 15th through July 1 without written permission from the Authorized Officer. 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-125	LIGHT AND SOUND (SENSITIVE RESOURCES) The lessee/operator may be required to utilize best management practices and the best available technology in order to minimize/mitigate noise and light pollution impacts. In accordance with section 6 of the lease terms and 43 CFR 3101.1-2, modifications to Surface Use Plan of Operations may be required to comply with the following decisions in the Resource Management Plans, Min 6 - Monticello Field Office RMP and Min 12 - Moab Field Office RMP to "encourage conservation of sensitive resource values" the lessee/operator may be required to take measures to minimize the impacts to the values of silence and night skies to visitors of parks, monuments, river corridors and other destinations where light and/or sound impacts would mar the visitor experience. For example, the lessee/operator may be required to install multi-cylinder pumps, hospital sound reducing mufflers, and/or place exhaust systems in manner that directs noise away from or reduces noise at the area. Additionally, the lessee/operator may be required to utilize such methods such as limiting the height of light poles, limiting wattage intensity, constructing light shields and/or adhering to prescribed restrictions on the timing for conducting artificially illuminated operations in order to minimize/mitigate light pollution impacts. However, the above described requirements will not be applicable when their implementation would adversely affect human health and safety.

Notice	Description/Purpose
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).
UT-LN-128	FLOODPLAIN MANAGEMENT The lessee/operator is given notice that, in accordance with Executive Order 11988, to avoid adverse impact to floodplains 1) facilities should be located outside the 100 year floodplain, or 2) would be minimized or mitigated by modification of surface use plans within floodplains present within the lease.
UT-LN-129	GREATER SAGE-GROUSE – DISTURBANCE CAP Manage discrete anthropogenic disturbances, whether temporary or permanent, so they cover less than 3 percent of 1) PHMA associated with a GRSG population area (referred to as biologically significant units {BSU} when coordinating across state lines) and 2) within the proposed project analysis area, on all lands (regardless of ownership) at each level. (See Appendix E of the GRSG Approved RMP Amendment for disturbance calculation instructions.)
UT-LN-130	GREATER SAGE-GROUSE – DENSITY LIMITATIONS Limit the density of energy and mining facilities within Priority Habitat Management Areas (PHMA) during project authorization to an average of one energy/mineral facility per 640 acres on all lands (regardless of land ownership) in PHMA within a proposed project analysis area to protect PHMA and the life-history needs of GRSG from habitat loss and GRSG populations from disturbance and limit fragmentation in PHMA.
UT-LN-131	GREATER SAGE-GROUSE – NET CONSERVATION GAIN In Priority and General Habitat Management Areas (PHMA and GHMA) all actions that result in habitat loss and degradation will require mitigation that provides a net conservation gain to the Greater Sage-Grouse (GRSG). Mitigation must account for any uncertainty associated with the effectiveness of the mitigation and will be achieved through avoiding, minimizing and compensating for impacts. Mitigation will be conducted according to the mitigation framework found in Appendix F in the Utah Approved Management Plan Amendment.
UT-LN-132	GREATER SAGE-GROUSE – REQUIRED DESIGN FEATURES Apply the Required Design Features (RDF)* in Appendix C of the Utah Approved Management Plan Amendment when leasing within Priority and General Habitat Management Areas (PHMA and GHMA). *RDFs may not be required if it is demonstrated through the NEPA analysis that the RDF associated project/activity is: • Documented to not be applicable to the site-specific conditions of the project/activity (e.g. due to site limitations or engineering considerations).

Notice	Description/Purpose
	Economic considerations, such as increased costs, do not necessarily require that an RDF be varied or rendered inapplicable; • An alternative RDF, state-implemented conservation measure, or plan-level protection is determined to provide equal or better protection for GRSG or its habitat; • Provide no additional protection to GRSG or its habitat.
UT-LN-133	GREATER SAGE-GROUSE – BUFFER In Priority and General Habitat Management Areas (PHMA and GHMA), the BLM will apply the lek buffer-distances identified in the USGS Report Conservation Buffer Distance Estimates for Greater Sage-Grouse – A Review (Open File Report 2014-1239) in accordance with Appendix B, Applying Lek-Buffer Distances, consistent with valid and existing rights and applicable law in authorizing management actions.
UT-LN-133A	GREATER SAGE-GROUSE – BUFFER In Priority Habitat Management Areas (PHMA), the BLM will assess and address the lek buffer-distances identified in the USGS Report Conservation Buffer Distance Estimates for Greater Sage-Grouse – A Review (Open File Report 2014-1239) as described in Appendix B, Applying Lek-Buffer Distances, consistent with valid and existing rights and applicable law in authorizing management actions.
UT-LN-134	GRAHAM'S BEARDTONGUE (<i>PENSTEMON GRAHAMII</i>) & WHITE RIVER BEARDTONGUE (<i>P. SCARIOSUS</i> VAR. <i>ALBIFLUVIS</i>) CONSERVATION AREAS This lease is subject to the management requirements set forth in the Conservation Agreement for Graham's Beardtongue (<i>Penstemon grahamii</i>) and White River Beardtongue (<i>P. scariosus</i> var. <i>albifluvis</i>) (July 2014 as amended), to the extent this Conservation Agreement is further amended and/or in effect. 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 conservation of the species.
UT-LN-136	AIR QUALITY 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 and Management Act, and/or other applicable laws and regulations. Analyses may include dispersion 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.
UT-LN-137	CULTURAL RESOURCES I The lessee/operator is given notice that measures to mitigate the potential impacts to TCPs or cultural plants identified through consultation may be required.

Notice	Description/Purpose
	Mitigation would be developed through further consultation with affected groups, which may include measures to maintain the viewshed and intrinsic values, as well as the auditory, visual, and aesthetic settings of the resources.
UT-LN-138	CULTURAL RESOURCES II The lessee/operator is given notice that a viewshed assessment would be required for those cultural sites that receive a high degree of visitor use or properties of traditional religious and cultural importance to a Native American tribe. If the assessment shows that the project would have adverse effects to the historic properties, the project may require relocation. The Historic Properties Visual Assessment for Effect Determination Worksheet would be utilized for the viewshed assessment.
UT-LN-139	CULTURAL RESOURCES (HIGH POTENTIAL FOR CULTURAL SITES) The lessee/operator is given notice that in areas of high potential for cultural site occurrence there is a higher likelihood of encountering cultural resource concerns (i.e., potential adverse effects) that may require archaeological monitoring, ethnographic data collection, data recovery, and mitigation of historic properties in order to exercise lease rights.
UT-LN-140	OLD SPANISH NATIONAL HISTORIC 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. The Lease Notice would be applied to 2-miles on either side of the trail. Coordination with the National Park Service by the BLM may be necessary.
UT-LN-141	BALD EAGLES (NEST SITES AND WINTER ROOST AREAS) The lessee/operator is given notice that the parcel contains habitat for the bald eagle. To protect bald eagle habitat and avoid negative impacts to the species, 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 bald eagle breeding or roosting season. A temporary action is completed prior to the following breeding or roosting season, leaving no permanent structures and resulting in no permanent habitat loss. A permanent action continues for more than one breeding or roosting season and/or causes a loss of eagle habitat, or displaces eagles through disturbances, i.e., creation of a permanent structure. Current avoidance and minimization measures include the following: 1. Surveys would 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 would require monitoring throughout the duration of the project.

Notice	Description/Purpose
	3. To ensure desired results are being achieved, minimization measures would be evaluated. 4. Water production would be managed to ensure maintenance or enhancement of riparian habitat. 5. Temporary activities within 1.0-mile of nest sites would not occur during the breeding season, which lasts from January 1 to August 31, unless the area has been surveyed according to protocol and determined to be unoccupied. 6. Temporary activities within 0.5-miles of winter roost areas, (e.g., cottonwood galleries) would 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. 7. No permanent infrastructure would be placed within 1.0-mile of nest sites. 8. No permanent infrastructure would be placed within 0.5-miles of winter roost areas. 9. Remove big game carrion to 100 feet from on lease roadways occurring within bald eagle foraging range. 10. Avoid loss or disturbance to large cottonwood gallery riparian habitats. 11. 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 direction drilling does not intercept or degrade alluvial aquifers. 12. 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.
UT-LN-142	GOLDEN EAGLE (NEST SITES AND TERRITORIES) The lessee/operator is given notice that the parcel contains habitat for the golden eagle. In order to protect the golden eagle habitat, nest sites, and nesting territories, 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 golden eagle breeding season. A temporary action is completed prior to the following breeding or roosting season, leaving no permanent structures and resulting in no permanent habitat loss. A permanent action continues for more than one breeding or roosting season and/or causes a loss of eagle habitat or displaces eagles through disturbances (i.e., creation of a permanent structure). Current avoidance and minimization measures include the following: 1. Surveys would 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.

Notice	Description/Purpose
	2. Lease activities would require monitoring throughout the duration of the project. 3. To ensure desired results are being achieved, minimization measures would be evaluated. 4. Temporary activities within 0.5-miles of nest sites would not occur during the breeding season from January 1 to August 31, unless the area has been surveyed according to protocol and determined to be unoccupied. 5. No permanent infrastructure would be placed within 0.5-miles of nest sites. 6. Remove big game carrion to 100 feet from on-lease roadways occurring within golden eagle foraging range. 7. 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 direction drilling does not intercept or degrade alluvial aquifers. Additional measures may also be employed to avoid or minimize effects to the species between the lease stage and lease development stage.
UT-LN-143	RAPTORS The lessee/operator is given notice that 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 BMPs 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(survey) 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 to 5 days of notification. Any construction activities authorized within a protective (spatial and seasonal) buffer for raptors will require an onsite monitor. Any indication that activities are adversely affecting the raptor and/or its young the onsite 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-144	MIGRATORY BIRDS The lessee/operator is given notice that surveys for nesting migratory birds may be required during migratory bird breeding season (April 1 to July 31) whenever surface disturbances and/or occupancy is proposed in association with mineral exploration and development within priority habitats. Surveys should focus on identified priority bird species in Utah. Field surveys will be conducted as

Notice	Description/Purpose
	determined by the Authorized Officer of the BLM. Based on the result of the field survey, the Authorized Officer will determine appropriate buffers and timing limitations.
UT-LN-145	FERRUGINOUS HAWK AND BURROWING OWL HABITAT The lessee/operator is given notice that no surface disturbances would be conducted during the breeding and nesting season (March 1 to August 31 for burrowing owl and March 1 to 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.
UT-LN-146	WHITE-TAILED PRAIRIE DOG/GUNNISON PRAIRIE DOG HABITAT The lessee/operator is given notice that no surface-disturbing activities within 660 feet (200 meters) of active prairie dog colonies identified within prairie dog habitat would be allowed. No permanent aboveground facilities are allowed within the 660-foot buffer.
UT-LN-147	KIT FOX HABITAT The lessee/operator is given notice that no surface disturbances would be allowed within 660 feet (200 meters) of an occupied natal kit fox den.
UT-LN-152	POTENTIAL ADJACENT LANDOWNER ACCESS RESTRICTIONS The lessee/operator is given notice that, due to topography, the lessee/operator may have to access the lease through lands that are not managed by the Bureau of Land Management. The lessee/operator would have to obtain permission from the surface owner to cross those lands. The Bureau of Land Management, and this lease, do not guarantee access across said lands. If the surface owner grants access, the lessee/operator would have to adhere to all conditions and/or stipulations set in place by the surface management entity.
UT-LN-154	WHITE RIVER BEARDTONGUE (PENSTEMON SCARIOSUS VAR. ALBIFLUVIS) In order to minimize effects to the federally proposed White River beardtongue, the Bureau of Land Management (BLM) in coordination with the U.S. Fish and Wildlife Service (Service) developed the following avoidance and minimization measures. The following avoidance and minimization measures should be included in the Plan of Development: 1. Pre-project habitat assessments will be completed across 100% of the project disturbance area within potential habitat¹ prior to any ground disturbing activities to determine if suitable White River beardtongue habitat is present. 2. Within suitable habitat³, site inventories will be conducted to determine occupancy. Inventories: a. Must be conducted by qualified individual(s) and according to BLM and Service accepted survey protocols, b. Will be conducted in suitable and occupied habitat⁴ for all areas proposed for surface disturbance prior to initiation of project activities and within the same growing season, at a time when the plant can be detected (usually May 15 to July

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	30th in the Uinta Basin; however, surveyors should verify that the plant is flowering by contacting a BLM or FWS botanist or demonstrating that the nearest known population is in flower), c. Will occur within 300' from the centerline of the proposed right-of-way for surface pipelines or roads; and within 300' from the perimeter of disturbance for the proposed well pad including the well pad, d. Will include, but not be limited to, plant species lists and habitat characteristics; and e. Will be valid for 3 years from the original survey date. 3. Design project infrastructure to minimize impacts within suitable habitat²: a. Reduce well pad size to the minimum needed, without compromising safety, b. Limit new access routes created by the project, c. Roads and utilities should share common right-of-ways where possible, d. Reduce the width of right-of-ways and minimize the depth of excavation needed for the road bed; where feasible, use the natural ground surface for the road within habitat, e. Place signing to limit off-road travel in sensitive areas; and f. Stay on designated routes and other cleared/approved areas. 4. Within occupied habitat⁴, project infrastructure will be designed to avoid direct disturbance and minimize indirect impacts to populations and to individual plants: a. Follow the above (3.) recommendations for project design within suitable habitats, b. Construction of roads will occur such that the edge of the right of way is at least 300' from any plant, c. Roads will be graveled within occupied habitat; the operator will apply water for dust abatement as needed to such areas from March 15th to October 15th (reproductive period); dust abatement applications will be comprised of water only, d. The edge of the well pad should be located at least 300' away from plants, e. Surface pipelines will be laid such that a 50 foot buffer exists between the edge of the right of way and the plants. Use stabilizing and anchoring techniques when the pipeline crosses suitable habitat to ensure pipelines don't move towards the population, f. Construction activities will not occur from April 15th through July 31st within occupied habitat, g. Before and during construction, areas for avoidance should be visually identifiable in the field, e.g., flagging, temporary fencing, rebar, etc.,

Notice	Description/Purpose
	h. Where technically and economically feasible, use directional drilling or multiple wells from the same pad, i. Designs will avoid concentrating water flows or sediments into occupied habitat, j. Place produced oil, water, or condensate tanks in centralized locations, away from occupied habitat; and k. Minimize the disturbed area of producing well locations through interim and final reclamation. Reclaim well pads following drilling to the smallest area possible. 5. Occupied White River beardtongue habitats within 50' of the edge of the surface pipelines' right-of-ways, 300' of the edge of the roads' right-of-ways, and 300' from the edge of well pads shall be monitored for a period of three years after ground disturbing activities. Monitoring will include annual plant surveys to determine plant and habitat impacts relative to project facilities. Annual reports shall be provided to the BLM and the Service. To ensure desired results are being achieved, minimization measures will be evaluated and may be changed after a thorough review of the monitoring results and annual reports during annual meetings between the BLM and the Service. 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 conservation of the species.
UT-LN-155	COLORADO RIVER WILDLIFE MANAGEMENT AREA CONSERVATION EASEMENT The lessee/operator is given notice that, due to the existence of a Colorado River Wildlife Management Area Conservation Easement between the private land owner(s) and the U.S. Fish and Wildlife Service, the lessee/operator may not be able to access this lease from the private landowner's surface. Any development proposed on the private land may be subject to the terms of that Conservation Easement. The Bureau of Land Management, and this lease, do not guarantee access to the lands within the Conservation Easement.
UT-LN-156	OURAY NATIONAL WILDLIFE REFUGE – JOHNSON BOTTOM The lessee/operator is given notice that the parcel is adjacent to the Ouray National Wildlife Refuge. Surface management plans and other development activities may be modified to protect to protect the Johnson Bottom habitat restoration project that is located on the Ouray National Wildlife Refuge that provides suitable habitat to support the endangered razorback sucker and other endangered fish. 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-156	POLLINATORS AND POLLINATOR HABITAT In order to protect pollinators and pollinator habitat, in accordance with BLM policy outlined in Instruction Memorandum No. 2016-013, Managing for Pollinators on Public Lands, and Pollinator-Friendly Best Management Practices

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	for Federal Lands (2015), the following avoidance, minimization, and mitigation measures would apply to this parcel: 1. Give a preference for placing well pads in previously disturbed areas, dry areas that do not support forbs, or areas dominated by nonnative grasses. 2. Utilize existing well pads where feasible. 3. Avoid disturbance to native milkweed patches within Monarch migration routes to protect Monarch butterfly habitat. 4. Avoid disturbance of riparian and meadow sites, as well as small depressed areas that may function as water catchments and host nectar-producing species, to protect Monarch butterfly habitat and nectaring sites. 5. Minimize the use of pesticides that negatively impact pollinators. 6. During revegetation treatments: a. Use minimum till drills where feasible. b. Include pollinator-friendly site-appropriate native plant seeds or seedlings in seed mixes. c. Where possible, increase the cover and diversity of essential habitat components for native pollinators by: ? Using site-appropriate milkweed seeds or seedlings within Monarch migration routes through priority sage-grouse habitat. ? Using seed mixes with annual and short-lived perennial native forbs that will bloom the first year and provide forage for pollinators. ? Using seed mixes with a variety of native forb species to ensure different colored and shaped flowers to provide nectar and pollen throughout the growing season for a variety of pollinators. ? Seeding forbs in separate rows from grasses to avoid competition during establishment. ? Avoiding seeding non-native forbs and grasses that establish early and out compete slower-growing natives.
UT-LN-161	PRODUCTIVE WELL ON LEASE A productive well has been directionally drilled from a well pad located on an adjacent lease into this parcel. The well is currently shut-in. The successful bidder may choose to complete an agreement with the adjacent lessee to produce the well or the responsible lessee will be required to plug the well bore back to the lease boundary plus the appropriate setback as soon as feasible.

Table 45 Utah Threatened and Endangered Species Notices

Notice	Description/Purpose
T&E-02	BLACK-FOOTED FERRET The Lessee/Operator is given notice that the lands in this lease may contain occupied black-footed ferret habitat, an endangered species under the Endangered

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	Species Act classified as an experimental, nonessential population in the state of Utah. Avoidance and minimization measures that should be followed are included within the Cooperative Plan for the Reintroduction and Management of Black-Footed Ferrets in Coyote Basin, Uintah County, Utah published by the Utah Division of Wildlife Resources in September, 1996. These measures may be updated based on the best available scientific data as it becomes available.
T&E-03	ENDANGERED FISH OF THE UPPER COLORADO RIVER DRAINAGE BASIN The Lessee/Operator is given notice that the lands in this parcel contain Critical Habitat for the Colorado River fish (bonytail, humpback chub, Colorado pike minnow, and razorback sucker) listed as endangered under the Endangered Species Act, or these parcels have watersheds that are tributary to designated habitat. Critical habitat was designated for the four endangered Colorado River fishes on March 21, 1994(59 FR 13374-13400). Designated critical habitat for all the endangered fishes includes those portions of the 100-year floodplain that contain primary constituent elements necessary for survival of the species. Avoidance or use restrictions may be placed on portions of the lease. The following avoidance and minimization measures have been designed to ensure activities carried out on the lease are in compliance with the Endangered Species Act. Integration of and adherence to these measures will facilitate review and analysis of any submitted permits under the authority of this lease. Following these measures could reduce the scope of Endangered Species Act, Section 7 consultation at the permit stage. Current avoidance and minimization measures include the following: 1. Surveys will be required prior to operations unless species occupancy and distribution information is complete and available. All surveys must be conducted by qualified individual(s). 2. 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. 3. Water production will be managed to ensure maintenance or enhancement of riparian habitat. 4. Avoid loss or disturbance of riparian habitats. 5. Where technically and economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and eliminate drilling in suitable riparian habitat. Ensure that such directional drilling does not intercept or degrade alluvial aquifers. 6. Conduct watershed analysis for leases in designated critical habitat and overlapping major tributaries in order to determine toxicity risk from permanent facilities. 7. Implement Appendix B (Hydrologic Considerations for Pipeline Crossing Stream Channels, Technical Note 423). 8. Drilling will not occur within 100 year floodplains of rivers or tributaries to rivers that contain listed fish species or critical habitat.

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	9. In areas adjacent to 100-year flood plains, particularly in systems prone to flash floods, analyze the risk for flash floods to impact facilities, and use closed loop drilling, and pipeline burial or suspension according to Appendix B (Hydrologic Considerations for Pipeline Crossing Stream Channels, Technical Note 423, to minimize the potential for equipment damage and resulting leaks or spills. Water depletions from any portion of the Upper Colorado River drainage basin above Lake Powell are considered to adversely affect or adversely modify the critical habitat of the four resident endangered fish species, and must be evaluated with regard to the criteria described in the Upper Colorado River Endangered Fish Recovery Program. Formal consultation with USFWS is required for all depletions. All depletion amounts must be reported to BLM. 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.
T&E-05	LISTED PLANT SPECIES The Lessee/Operator is given notice that the lands in this parcel contain suitable habitat for federally listed plant species under the Endangered Species Act. The following avoidance and minimization measures have been developed to facilitate review and analysis of any submitted permits under the authority of this lease 1. Site inventories: a. Must be conducted to determine habitat suitability, b. Are required in known or potential habitat for all areas proposed for surface disturbance prior to initiation of project activities, at a time when the plant can be detected, and during appropriate flowering periods, c. Documentation should include, but not be limited to individual plant locations and suitable habitat distributions, and d. All surveys must be conducted by qualified individuals. 2. 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. 3. Project activities must be designed to avoid direct disturbance to populations and to individual plants: a. Designs will avoid concentrating water flows or sediments into plant occupied habitat. b. Construction will occur down slope of plants and populations where feasible; if well pads and roads must be sited upslope, buffers of 300 feet minimum between surface disturbances and plants and populations will be incorporated. c. Where populations occur within 300 ft. of well pads, establish a buffer or fence the individuals or groups of individuals during and post-construction.

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	d. Areas for avoidance will be visually identifiable in the field, e.g., flagging, temporary fencing, rebar, etc. e. For surface pipelines, use a 10 foot buffer from any plant locations: f. If on a slope, use stabilizing construction techniques to ensure the pipelines don't move towards the population. 4. For riparian/wetland-associated species, e.g. Ute ladies-tresses, avoid loss or disturbance of riparian habitats. 5. Ensure that water extraction or disposal practices do not result in change of hydrologic regime. 6. Limit disturbances to and within suitable habitat by staying on designated routes. 7. Limit new access routes created by the project. 8. Place signing to limit ATV travel in sensitive areas. 9. Implement dust abatement practices near occupied plant habitat. 10. All disturbed areas will be re-vegetated with native species comprised of species indigenous to the area. 11. Post construction monitoring for invasive species will be required. 12. Where technically and economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and eliminate drilling in plant habitat. Ensure that such directional drilling does not intercept or degrade alluvial aquifers. 13. 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. Additional measures to avoid or minimize effects to the species may be developed and implemented in consultation with the U.S. Fish and Wildlife Service between the lease sale stage and lease development stage to ensure continued compliance with the Endangered Species Act.
T&E-06	MEXICAN SPOTTED OWL The Lessee/Operator is given notice that the lands in this parcel contain suitable habitat for Mexican spotted owl, a federally listed species. The Lessee/Operator is given notice that the lands in this lease contain Designated Critical Habitat for the Mexican spotted owl, a federally listed species. Critical habitat was designated for the Mexican spotted owl on August 31, 2004 (69 FR 53181-53298). Avoidance or use restrictions may be placed on portions of the lease. Application of appropriate measures will depend whether the action is temporary or permanent, and whether it occurs within or outside the owl nesting season. A 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.

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	The following avoidance and minimization measures have been designed to ensure activities carried out on the lease are in compliance with the Endangered Species Act. Integration of, and adherence to these measures, will facilitate review and analysis of any submitted permits under the authority of this lease. Following these measures could reduce the scope of Endangered Species Act, Section 7 consultation at the permit stage. Current avoidance and minimization measures include the following: 1. Surveys will be required prior to operations unless species occupancy and distribution information is complete and available. All Surveys must be conducted by qualified individual(s). 2. Assess habitat suitability for both nesting and foraging using accepted habitat models in conjunction with field reviews. Apply the conservation measures below if project activities occur within 0.5 mile of suitable owl habitat. Determine potential effects of actions to owls and their habitat. a. Document type of activity, acreage and location of direct habitat impacts, type and extent of indirect impacts relative to location of suitable owl habitat. b. Document if action is temporary or permanent. 3. Lease activities will require monitoring throughout the duration of the project. To ensure desired results are being achieved, minimization measures will be evaluated and, if necessary, Section 7 consultation reinitiated. 4. Water production will be managed to ensure maintenance or enhancement of riparian habitat. 5. Where technically and economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and eliminate drilling in canyon habitat suitable for Mexican spotted owl nesting. 6. For all temporary actions that may impact owls or suitable habitat: a. If the action occurs entirely outside of the owl breeding season (March 1 – August 31), and leaves no permanent structure or permanent habitat disturbance, action can proceed without an occupancy survey. b. If action will occur during a breeding season, survey for owls prior to commencing activity. If owls are found, activity must be delayed until outside of the breeding season. c. Rehabilitate access routes created by the project through such means as raking out scars, re-vegetation, gating access points, etc. 7. For all permanent actions that may impact owls or suitable habitat: a. Survey two consecutive years for owls according to accepted protocol prior to commencing activities. b. If owls are found, no actions will occur within 0.5 mile of identified nest site. If nest site is unknown, no activity will occur within the designated Protected Activity Center (PAC). c. Avoid drilling and permanent structures within 0.5 mi of suitable habitat unless surveyed and not occupied.

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	d. Reduce noise emissions (e.g., use hospital-grade mufflers) to 45 dBA at 0.5 mile from suitable habitat, including canyon rims. Placement of permanent noise-generating facilities should be determined by a noise analysis to ensure noise does not encroach upon a 0.5 mile buffer for suitable habitat, including canyon rims. e. Limit disturbances to and within suitable habitat by staying on approved routes. f. Limit new access routes created by the project. Additional measures to avoid or minimize effects to the species may be developed and implemented in consultation with the U.S. Fish and Wildlife Service between the lease sale stage and lease development stage to ensure continued compliance with the Endangered Species Act.
T&E-07	SOUTHWESTERN WILLOW FLYCATCHER The Lessee/Operator is given notice that the lands in this parcel contains riparian habitat that falls within the range for southwestern willow flycatcher, a federally listed species. Avoidance or use restrictions may be placed on portions of the lease. Application of appropriate measures will depend whether the action is temporary or permanent, and whether it occurs within or outside the nesting season. A temporary action is completed prior to the following breeding season leaving no permanent structures and resulting in no permanent habitat loss. A permanent action continues for more than one breeding season and/or causes a loss of habitat or displaces flycatchers through disturbances, i.e. creation of a permanent structure. The following avoidance and minimization measures have been designed to ensure activities carried out on the lease are in compliance with the Endangered Species Act. Integration of, and adherence to these measures, will facilitate review and analysis of any submitted permits under the authority of this lease. Following these measures could reduce the scope of Endangered Species Act, Section 7 consultation at the permit stage. Current avoidance and minimization measures include the following: 1. Surveys will be required prior to operations unless species occupancy and distribution information is complete and available. All Surveys must be conducted by qualified individual(s), and be conducted according to protocol. 2. 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. 3. Water production will be managed to ensure maintenance or enhancement of riparian habitat. 4. Where technically and economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and eliminate drilling in suitable riparian habitat. Ensure that such directional drilling does not intercept or degrade alluvial aquifers. 5. Drilling activities will maintain a 300 ft. buffer from suitable riparian habitat year long.

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	6. Drilling activities within 0.25 mile of occupied breeding habitat will not occur during the breeding season of May 1 to August 15. 7. Ensure that water extraction or disposal practices do not result in change of hydrologic regime that would result in loss or degradation of riparian habitat. 8. Re-vegetate with native species all areas of surface disturbance within riparian areas and/or adjacent uplands. 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.
T&E-09	UTAH PRAIRIE DOG The lessee/operator is given notice that lands in this lease may contain historic and/or occupied Utah prairie dog habitat, a threatened species under the Endangered Species Act. Avoidance or use restrictions may be placed on portions of the lease. Application of appropriate measures will depend whether the action is temporary or permanent, and whether it occurs when prairie dogs are active or hibernating. A temporary action is completed prior to the following active season leaving no permanent structures and resulting in no permanent habitat loss. A permanent action continues for more than one activity/hibernation season and/or causes a loss of Utah prairie dog habitat or displaces prairie dogs through disturbances, i.e. creation of a permanent structure. The following avoidance and minimization measures have been designed to ensure activities carried out on the lease are in compliance with the Endangered Species Act. Integration of, and adherence to these measures will facilitate review and analysis of any submitted permits under the authority of this lease. Following these measures could reduce the scope of Endangered Species Act, Section 7 consultation at the permit stage. Current avoidance and minimization measures include the following: 1. Surveys will be required prior to operations unless species occupancy and distribution information is complete and available. All Surveys must be conducted by qualified individual(s). 2. 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. 3. Where technically and economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and eliminate drilling in prairie dog habitat. 4. Surface occupancy or other surface disturbing activity will be avoided within 0.5 mile of active prairie dog colonies. 5. Permanent surface disturbance or facilities will be avoided within 0.5 mile of potentially suitable, unoccupied prairie dog habitat, identified and mapped by Utah Division of Wildlife Resources since 1976. 6. The lessee/operator should consider if fencing infrastructure on well pad, e.g., drill pads, tank batteries, and compressors, would be needed to protect

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	equipment from burrowing activities. In addition, the operator should consider if future surface disturbing activities would be required at the site. 7. Within occupied habitat, set a 25 mph speed limit on operator-created and maintained roads. 8. Limit disturbances to and within suitable habitat by staying on designated routes. 9. 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.
T&E-10	CANADA LYNX The Lessee/Operator is given notice that the lands in this parcel contain potential habitat for Canada lynx, a federally listed species. Avoidance or use restrictions may be placed on portions of the lease. Application of appropriate measures will depend on the nature of the proposed development, as well as proposed timing and location. 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 are generally adapted from the standards and guidelines listed in Chapter 7 (Conservation Measures) of the LCAS (Ruediger 2000) and include the following: 1. Surveys will be required prior to operations unless species occupancy and distribution information is complete and available. All Surveys must be conducted by qualified individual(s), and be conducted according to protocol. 2. Based on data and information gathered in item 1, lease activities within, or in proximity to, occupied lynx habitats will require monitoring throughout the duration of the project. To ensure desired results are being achieved, minimization measures will be evaluated and, if necessary, Section 7 consultation reinitiated. 3. Avoid all surface disturbing actions within occupied denning habitat. 4. Avoid construction and surface disturbing actions in proximity to potential denning habitat during the breeding season (mid-April to July). 5. Activities involved with routine maintenance and operation will only occur during daytime hours, when lynx are least active. 6. Where technically and economically feasible, wells will be remotely monitored within lynx habitat. 7. Limit disturbance to and within suitable habitat by staying on approved access routes. 8. Limit new access routes created by the project.

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	9. Dirt and gravel roads traversing lynx habitat (particularly those that could become highways) should not be paved or otherwise upgraded (e.g., straightening of curves, widening of roadway etc.) in a manner that is likely to lead to significant increases in traffic volume, traffic speed, increased width of the cleared ROW, or would foreseeably contribute to development or increases in human activity in lynx habitat. When these types of upgrades are proposed, a thorough analysis of potential direct and indirect impacts to lynx and lynx habitat should be conducted. 10. Minimize impacts to habitats that support lynx prey. 11. Where technically and economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and to minimize or eliminate drilling in suitable lynx habitat. Additional measures may also be employed to avoid or minimize effects to the species at the development stage and will be developed and implemented in consultation with the U.S. Fish and Wildlife Service to ensure continued compliance with the Endangered Species Act.
T&E-11	CALIFORNIA CONDOR The Lessee/Operator is given notice that the lands located in this parcel contain potential habitat for the California Condor, a federally listed species. Avoidance or use restrictions may be placed on portions of the lease if the area is known or suspected to be used by condors. Application of appropriate measures will depend on whether the action is temporary or permanent, and whether it occurs within or outside potential habitat. A temporary action is completed prior to the following important season of use, leaving no permanent structures and resulting in no permanent habitat loss. This would include consideration for habitat functionality. A permanent action continues for more than one season of habitat use, and/or causes a loss of condor habitat function or displaces condors through continued disturbance (i.e. creation of a permanent structure requiring repetitious maintenance, or emits disruptive levels of noise). The following avoidance and minimization measures have been designed to ensure activities carried out on the lease are in compliance with the Endangered Species Act. Integration of, and adherence to these measures will facilitate review and analysis of any submitted permits under the authority of this lease. Following these measures could reduce the scope of Endangered Species Act, Section 7 consultation at the permit stage. Current avoidance and minimization measures include the following: 1. Surveys will be required prior to operations unless species occupancy and distribution information is complete and available. All Surveys must be conducted by qualified individual(s) approved by the BLM, and must be conducted according to approved protocol. 2. If surveys result in positive identification of condor use, all lease activities will require monitoring throughout the duration of the project to ensure desired results of applied mitigation and protection. Minimization measures will be evaluated during development and, if necessary, Section 7 consultation may be reinitiated.

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	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.
T&E-12	PARIETTE CACTUS (SCLEROCACTUS BREVISPINUS) AND UINTA BASIN HOOKLESS CACTUS [SCLEROCACTUS GLAUCUS (BREVISPINUS AND WETLANDICUS)] The Lessee/Operator is given notice that the lands in this parcel contain suitable habitat for the Pariette cactus and Uinta Basin hookless cactus, under the Endangered Species Act (ESA). The following avoidance and minimization measures have been developed to facilitate review and analysis of any submitted permits under the authority of this lease. In order to minimize effects to the federally threatened Pariette cactus and Uinta Basin hookless cactus, the BLM in coordination with the USFWS, developed the following avoidance and minimization measures. Integration of and adherence to these measures will help ensure the activities carried out during oil and gas development (including but not limited to drilling, production, and maintenance) are in compliance with the ESA. For the purposes of this document, the following terms are so defined: Potential habitat is defined as areas which satisfy the broad criteria of the species habitat description; usually determined by preliminary, in-house assessment. Suitable habitat is defined as areas which contain or exhibit the specific components or constituents necessary for plant persistence; determined

Notice	Description/Purpose
	by field inspection and/or surveys; may or may not contain Uinta Basin hookless cactus. Habitat descriptions can be found in the U.S. Fish and Wildlife Service's 1990 Recovery Plan and Federal Register Notices for the Uinta Basin hookless cactus (http://www.fws.gov/endangered/wildlife.html). Occupied habitat is defined as areas currently or historically known to support Uinta Basin hookless cactus; synonymous with "known habitat." The following avoidance and minimization measures should be included in the Plan of Development: 1. Pre-project habitat assessments will be completed across 100% of the project disturbance area within potential habitat prior to any ground disturbing activities to determine if suitable Pariette cactus and Uinta Basin hookless cactus habitat is present. 2. Within suitable habitat, site inventories will be conducted to determine occupancy. Inventories: a. Must be conducted by qualified individual(s) and according to BLM and Service accepted survey protocols, b. Will be conducted in suitable and occupied habitat for all areas proposed for surface disturbance prior to initiation of project activities and within the same growing season, at a time when the plant can be detected, and during appropriate flowering periods: i. Sclerocactus brevispinus surveys should be conducted March 15th to June 30th, unless extended by the BLM ii. Sclerocactus wetlandicus surveys can be done any time of the year, provided there is no snow cover, c. Will occur within 300' from the edge of the proposed right-of-way for surface pipelines or roads; and within 300' from the perimeter of disturbance for the proposed well pad including the well pad, d. Will include, but not be limited to, plant species lists and habitat characteristics, and e. Will be valid until March 15th the following year for Sclerocactus brevispinus and one year from the survey date for Sclerocactus wetlandicus. 3. Design project infrastructure to minimize impacts within suitable habitat²: a. Reduce well pad size to the minimum needed, without compromising safety, b. Limit new access routes created by the project, c. Roads and utilities should share common right-of-ways where possible, d. Reduce width of right-of-ways and minimize the depth of excavation needed for the road bed; where feasible, use the natural ground surface for the road within habitat, e. Place signing to limit off-road travel in sensitive areas, f. Stay on designated routes and other cleared/approved areas, and

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	g. All disturbed areas will be re-vegetated with native species comprised of species indigenous to the area and non-native species that are not likely to invade other areas. 4. Within occupied habitat³, project infrastructure will be designed to avoid direct disturbance and minimize indirect impacts to populations and to individual plants: a. Follow the above (3.) recommendations for project design within suitable habitats, b. Buffers of 300 feet minimum between the edge of the right of way (roads and surface pipelines) or surface disturbance (well pads) and plants and populations will be incorporated, c. Surface pipelines will be laid such that a 300 foot buffer exists between the edge of the right of way and the plants, use stabilizing and anchoring techniques when the pipeline crosses the habitat to ensure the pipelines don't move towards the population, d. Before and during construction, areas for avoidance should be visually identifiable in the field (e.g., flagging, temporary fencing, rebar, etc.), e. Where technically and economically feasible, use directional drilling or multiple wells from the same pad, f. Designs will avoid concentrating water flows or sediments into occupied habitat, g. Place produced oil, water, or condensate tanks in centralized locations, away from occupied habitat, and h. Minimize the disturbed area of producing well locations through interim and final reclamation. Reclaim well pads following drilling to the smallest area possible. 5. Occupied Pariette cactus and Uinta Basin hookless cactus habitats within 300' of the edge of the surface pipelines' right-of-ways, 300' of the edge of the roads' right-of-ways, and 100' from the edge of the well pad shall be monitored for a period of three years after ground disturbing activities. Monitoring will include annual plant surveys to determine plant and habitat impacts relative to project facilities. Annual reports shall be provided to the BLM and the USFWS. To ensure desired results are being achieved, minimization measures will be evaluated and may be changed after a thorough review of the monitoring results and annual reports during annual meetings between the BLM and the USFWS. 6. Re-initiation of Section 7 consultation with the USFWS will be sought immediately if any loss of plants or occupied habitat for the Pariette cactus and Uinta Basin hookless cactus is anticipated as a result of project activities. 7. The lessee will observe the management and conservation measures developed for the Level 1 and 2 Core Conservation Areas that have been identified by the USFWS. These conservation measures include disturbance caps (no further disturbance in Core 1 Areas and a 5% disturbance cap in Core 2 Areas).

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	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 USFWS to ensure continued compliance with the ESA.
T&E-14	LAST CHANCE TOWNSENDIA (TOWNSENDIA APRICA) In order to minimize effects to the federally threatened Last Chance Townsendia, the Bureau of Land Management (BLM), in coordination with the U.S. Fish and Wildlife Service (Service), has developed the following avoidance and minimization measures. Implementation of these measures will help ensure the activities carried out during oil and gas development (including but not limited to drilling, production, and maintenance operations) are in compliance with the endangered Species Act (ESA). For the purposes of this document, the following terms are so defined: Potential habitat is defined as areas which satisfy the broad criteria of the species habitat description; usually determined by preliminary, in-house assessment. Suitable habitat is defined as areas which contain or exhibit the specific components or constituents necessary for plant persistence; determined by field inspection and/or surveys; may or may not contain Last Chance Townsendia; habitat descriptions can be found in Federal Register Notice and species recovery plan links at http://www.fws.gov/endangered/wildlife.html. Occupied habitat is defined as areas currently or historically known to support Last Chance Townsendia; synonymous with “known habitat.” The following avoidance and minimization measures should be included in the Plan of Development: 1. Pre-project habitat assessments will be completed across 100% of the project disturbance area within potential habitat prior to any ground disturbing activities (including ATV use) to determine if suitable Last Chance Townsendia habitat is present. 2. Site inventories will be conducted within suitable habitat to determine occupancy. Where standard surveys are technically infeasible and otherwise hazardous due to topography, slope, etc., suitable habitat will be assessed and mapped for avoidance (hereafter, “avoidance areas”); in such cases, in general, 300’ buffers will be maintained between surface disturbance and avoidance areas. However, site-specific distances will need to be approved by FWS and BLM when disturbance will occur upslope of habitat. Where conditions allow, inventories: a. Must be conducted by qualified individuals(s) and according to BLM and Service accept survey protocols, b. Will be conducted in suitable and occupied habitat for all areas proposed for surface disturbance prior to initiation of project activities and within the same growing season, at a time when the plant can be detected (usually April 15th to June 5th, however, surveyors should verify that the plant is flowering by contacting a BLM or FWS botanist or demonstrating that the nearest known population is in flower),

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	c. Will occur within 300' from the centerline of the proposed right-of-way for surface pipelines or roads; and within 300' from the perimeter of disturbance for the proposed well pad including the well pad, d. Will include, but not be limited to, plant species lists and habitat characteristics, and e. Will be valid until April 15th the following year. 3. Design project infrastructure to minimize impacts within suitable habitat: a. Where standard surveys are technically infeasible, infrastructure and activities will avoid all suitable habitat (avoidance areas) and incorporate 300' buffers, in general; however, site-specific distances will need to be approved by FWS and BLM when disturbance will occur upslope of habitat, b. Reduce well pad size to the minimum needed, without compromising safety, c. Where technically and economically feasible, use directional drilling or multiple wells from the same pad, d. Limit new access routes created by the project, e. Roads and utilities should share common right-of-ways where possible, f. Reduce the width of right-of-ways and minimize the depth of excavation needed for the road bed; where feasible, use the natural ground surface for the road within habitat, g. Place signing to limit off-road travel in sensitive areas, and h. Stay on designated routes and other cleared/approved areas, i. All disturbed areas will be re-vegetated with native species comprised of species indigenous to the area and non-native species that are not likely to invade other areas. 4. Within occupied habitat, project infrastructure will be designed to avoid direct disturbance and minimize indirect impacts to populations and to individual plants: a. Follow the above recommendations (3.) for project design within suitable habitats, b. To avoid water flow and/or sedimentation into occupied habitat and avoidance areas, silt fences, hay bales, and similar structures or practices will be incorporated into the project design; appropriate placement of fill is encouraged, c. Construction of roads will occur such that the edge of the right of way is at least 300' from any plant and 300' from avoidance areas, d. Roads will be graveled with occupied habitat; the operator is encouraged to apply water for dust abatement to such areas from April 15th to June 5th (flowering period); dust abatement applications will be comprised of water only, e. The edge of the well pad should be located at least 300' away from plants and avoidance areas, in general; however, site-specific distances will need to be approved by FWS and BLM when disturbance will occur upslope of habitat,

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	f. Surface pipelines will be laid such that a 300' buffer exists between the edge of the right of way and plants and 300' between the edge of right of way and avoidance areas; use stabilizing and anchoring techniques when the pipeline crossed suitable habitat to ensure pipelines don't move towards the population; site-specific distances will need to be approved by FWS and BLM when disturbance will occur upslope of habitat, g. Construction activities will not occur from April 15th through June 5th within occupied habitat, h. Before and during construction, areas for avoidance should be visually identifiable in the field, e.g., flagging temporary fencing, rebar, etc., i. Place produced oil, water, or condensate tanks in centralized locations, away from occupied habitat, and j. Minimize the disturbed area of producing well locations through interim and final reclamation. Reclaim well pads following drilling to the smallest area possible. 5. Occupied Last Chance Townsendia habitats within 300' of the edge of the surface pipelines' right-of-ways, 300' of the edge of the roads' right-of-ways, and 300' from the edge of the well pad shall be monitored for a period of three years after ground disturbing activities. Monitoring will include annual plant surveys to determine plant and habitat impacts relative to project facilities. Annual reports shall be provided to the BLM and the Service. To ensure desired results are being achieved, minimization measures will be evaluated and may be changed after a thorough review of the monitoring results and annual reports during annual meetings between the BLM and the Service. 6. Re-initiation of section 7 consultation with the Service will be sought immediately if any loss of plants or occupied habitat for the Last Chance Townsendia 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.
T&E-17	SAN RAFAEL CACTUS (PEDIOCACTUS DESPAINII) In order to minimize effects to the federally threatened San Rafael Cactus, the Bureau of Land Management (BLM), in coordination with the U.S. Fish and Wildlife Service (Service), has developed the following avoidance and minimization measures. Implementation of these measures will help ensure the activities carried out during oil and gas development (including but not limited to drilling, production, and maintenance operations) are in compliance with the endangered Species Act (ESA). For the purposes of this document, the following terms are so defined: Potential habitat is defined as areas which satisfy the broad criteria of the species habitat description; usually determined by preliminary, in-house assessment. Suitable habitat is defined as areas which contain or exhibit the specific components or constituents necessary for plant persistence; determined by field inspection and/or surveys; may or may not contain San Rafael Cactus; habitat descriptions can be found in Federal Register Notice and species recovery

Notice	Description/Purpose
	plan links at <http://www.fws.gov/endangered/wildlife.html>. Occupied habitat is defined as areas currently or historically known to support San Rafael Cactus; synonymous with “known habitat.” The following avoidance and minimization measures should be included in the Plan of Development: 1. Pre-project habitat assessments will be completed across 100% of the project disturbance area within potential habitat prior to any ground disturbing activities (including ATV use) to determine if suitable San Rafael Cactus habitat is present. 2. Site inventories will be conducted within suitable habitat to determine occupancy. Where standard surveys are technically infeasible and otherwise hazardous due to topography, slope, etc. suitable habitat will be assessed and mapped for avoidance (hereafter, “avoidance areas”); in such cases, in general, 300’ buffers will be maintained between surface disturbance and avoidance areas. However, site-specific distances will need to be approved by FWS and BLM when disturbance will occur upslope of habitat. Where conditions allow, inventories: a. Must be conducted by qualified individuals(s) and according to BLM and Service accept survey protocols, b. Will be conducted in suitable and occupied habitat for all areas proposed for surface disturbance prior to initiation of project activities and within the same growing season, at a time when the plant can be detected (usually April 15th to June 5th, however, surveyors should verify that the plant is flowering by contacting a BLM or FWS botanist or demonstrating that the nearest known population is in flower), c. Will occur within 300’ from the centerline of the proposed right-of-way for surface pipelines or roads; and within 300’ from the perimeter of disturbance for the proposed well pad including the well pad, d. Will include, but not be limited to, plant species lists and habitat characteristics, and e. Will be valid until April 15th the following year. 3. Design project infrastructure to minimize impacts within suitable habitat: a. Where standard surveys are technically infeasible, infrastructure and activities will avoid all suitable habitat (voidance areas) and incorporate 300’ buffers, in general; however, site-specific distances will need to be approved by FWS and BLM when disturbance will occur upslope of habitat, b. Reduce well pad size to the minimum needed, without compromising safety, c. Where technically and economically feasible, use directional drilling or multiple wells from the same pad, d. Limit new access routes created by the project, e. Roads and utilities should share common right-of-ways where possible,

Notice	Description/Purpose
	f. Reduce the width of right-of-ways and minimize the depth of excavation needed for the road bed; where feasible, use the natural ground surface for the road within habitat, g. Place signing to limit off-road travel in sensitive areas, and h. Stay on designated routes and other cleared/approved areas, i. All disturbed areas will be re-vegetated with native species comprised of species indigenous to the area and non-native species that are not likely to invade other areas. 4. Within occupied habitat, project infrastructure will be designed to avoid direct disturbance and minimize indirect impacts to populations and to individual plants: a. Follow the above recommendations (3.) for project design within suitable habitats, b. To avoid water flow and/or sedimentation into occupied habitat and avoidance areas, silt fences, hay bales, and similar structures or practices will be incorporated into the project design; appropriate placement of fill is encouraged, c. Construction of roads will occur such that the edge of the right of way is at least 300' from any plant and 300' from avoidance areas, d. Roads will be graveled with occupied habitat; the operator is encouraged to apply water for dust abatement to such areas from April 15th to June 5th (flowering period); dust abatement applications will be comprised of water only, e. The edge of the well pad should be located at least 300' away from plants and avoidance areas, in general; however, site-specific distances will need to be approved by FWS and BLM when disturbance will occur upslope of habitat, f. Surface pipelines will be laid such that a 300' buffer exists between the edge of the right of way and plants and 300' between the edge of right of way and avoidance areas; use stabilizing and anchoring techniques when the pipeline crossed suitable habitat to ensure pipelines don't move towards the population; site-specific distances will need to be approved by FWS and BLM when disturbance will occur upslope of habitat, g. Construction activities will not occur from April 15th through June 5th within occupied habitat, h. Before and during construction, areas for avoidance should be visually identifiable in the field, e.g., flagging temporary fencing, rebar, etc., i. Place produced oil, water, or condensate tanks in centralized locations, away from occupied habitat, and j. Minimize the disturbed area of producing well locations through interim and final reclamation. Reclaim well pads following drilling to the smallest area possible. 5. Occupied San Rafael Cactus habitats within 300' of the edge of the surface pipelines' right-of-ways, 300' of the edge of the roads' right-of-ways, and 300' from the edge of the well pad shall be monitored for a period of three years after ground disturbing activities. Monitoring will include annual plant surveys to

Notice	Description/Purpose
	determine plant and habitat impacts relative to project facilities. Annual reports shall be provided to the BLM and the Service. To ensure desired results are being achieved, minimization measures will be evaluated and may be changed after a thorough review of the monitoring results and annual reports during annual meetings between the BLM and the Service. 6. Re-initiation of section 7 consultation with the Service will be sought immediately if any loss of plants or occupied habitat for the San Rafael Cactus 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.
T&E-19	JONES CYCLADENIA (CYCLADENIA HYMILIS VAR JONESII) In order to minimize effects to the federally threatened Jones Cycladenia, the Bureau of Land Management (BLM), in coordination with the U.S. Fish and Wildlife Service (Service), has developed the following avoidance and minimization measures. Implementation of these measures will help ensure the activities carried out during oil and gas development (including but not limited to drilling, production, and maintenance operations) are in compliance with the endangered Species Act (ESA). For the purposes of this document, the following terms are so defined: Potential habitat is defined as areas which satisfy the broad criteria of the species habitat description; usually determined by preliminary, in-house assessment. Suitable habitat is defined as areas which contain or exhibit the specific components or constituents necessary for plant persistence; determined by field inspection and/or surveys; may or may not contain Jones Cycladenia; habitat descriptions can be found in Federal Register Notice and species recovery plan links at <http://www.fws.gov/endangered/wildlife.html>. Occupied habitat is defined as areas currently or historically known to support Jones Cycladenia; synonymous with “known habitat.” The following avoidance and minimization measures should be included in the Plan of Development: 1. Pre-project habitat assessments will be completed across 100% of the project disturbance area within potential habitat¹ prior to any ground disturbing activities (including ATV use) to determine if suitable Jones Cycladenia habitat is present. 2. Site inventories will be conducted within suitable habitat to determine occupancy. Where standard surveys are technically infeasible and otherwise hazardous due to topography, slope, etc. suitable habitat will be assessed and mapped for avoidance (hereafter, “avoidance areas”); in such cases, in general, 300’ buffers will be maintained between surface disturbance and avoidance areas. However, site specific distances will need to be approved by FWS and BLM when disturbance will occur upslope of habitat. Where conditions allow, inventories: a. Must be conducted by qualified individuals(s) and according to BLM and Service accept survey protocols,

Notice	Description/Purpose
	b. Will be conducted in suitable and occupied habitat for all areas proposed for surface disturbance prior to initiation of project activities and within the same growing season, at a time when the plant can be detected (usually April 15th to June 5th, however, surveyors should verify that the plant is flowering by contacting a BLM or FWS botanist or demonstrating that the nearest known population is in flower), c. Will occur within 300' from the centerline of the proposed right-of-way for surface pipelines or roads; and within 300' from the perimeter of disturbance for the proposed well pad including the well pad, d. Will include, but not be limited to, plant species lists and habitat characteristics, and e. Will be valid until April 15th the following year. 3. Design project infrastructure to minimize impacts within suitable habitat: a. Where standard surveys are technically infeasible, infrastructure and activities will avoid all suitable habitat (avoidance areas) and incorporate 300' buffers, in general; however, site specific distances will need to be approved by FWS and BLM when disturbance will occur upslope of habitat, b. Reduce well pad size to the minimum needed, without compromising safety, c. Where technically and economically feasible, use directional drilling or multiple wells from the same pad, d. Limit new access routes created by the project, e. Roads and utilities should share common right-of-ways where possible, f. Reduce the width of right-of-ways and minimize the depth of excavation needed for the road bed; where feasible, use the natural ground surface for the road within habitat, g. Place signing to limit off-road travel in sensitive areas, and h. Stay on designated routes and other cleared/approved areas, i. All disturbed areas will be re-vegetated with native species comprised of species indigenous to the area and non-native species that are not likely to invade other areas. 4. Within occupied habitat, project infrastructure will be designed to avoid direct disturbance and minimize indirect impacts to populations and to individual plants: a. Follow the above recommendations (3.) for project design within suitable habitats, b. To avoid water flow and/or sedimentation into occupied habitat and avoidance areas, silt fences, hay bales, and similar structures or practices will be incorporated into the project design; appropriate placement of fill is encouraged, c. Construction of roads will occur such that the edge of the right of way is at least 300' from any plant and 300' from avoidance areas,

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	d. Roads will be graveled with occupied habitat; the operator is encouraged to apply water for dust abatement to such areas from April 15th to June 5th (flowering period); dust abatement applications will be comprised of water only, e. The edge of the well pad should be located at least 300' away from plants and avoidance areas, in general; however, site specific distances will need to be approved by FWS and BLM when disturbance will occur upslope of habitat, f. Surface pipelines will be laid such that a 300' buffer exists between the edge of the right of way and plants and 300' between the edge of right of way and avoidance areas; use stabilizing and anchoring techniques when the pipeline crossed suitable habitat to ensure pipelines don't move towards the population; site specific distances will need to be approved by FWS and BLM when disturbance will occur upslope of habitat, g. Construction activities will not occur from April 15th through June 5th within occupied habitat, h. Before and during construction, areas for avoidance should be visually identifiable in the field, e.g., flagging temporary fencing, rebar, etc., i. Place produced oil, water, or condensate tanks in centralized locations, away from occupied habitat, and j. Minimize the disturbed area of producing well locations through interim and final reclamation. Reclaim well pads following drilling to the smallest area possible. 5. Occupied Jones Cycladenia habitats within 300' of the edge of the surface pipelines' right-of-ways, 300' of the edge of the roads' right-of-ways, and 300' from the edge of the well pad shall be monitored for a period of three years after ground disturbing activities. Monitoring will include annual plant surveys to determine plant and habitat impacts relative to project facilities. Annual reports shall be provided to the BLM and the Service. To ensure desired results are being achieved, minimization measures will be evaluated and may be changed after a thorough review of the monitoring results and annual reports during annual meetings between the BLM and the Service. 6. Re-initiation of section 7 consultation with the Service will be sought immediately if any loss of plants or occupied habitat for the Jones Cycladenia 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.
T&E-20	CLAY REED – MUSTARD (SCHOENCRAMBE ARGILLACEA) The Lessee/Operator is given notice that the lands in this parcel contain suitable habitat for clay reed-mustard under the Endangered Species Act. The following avoidance and minimization measures have been developed to facilitate review and analysis of any submitted permits under the authority of this lease: In order to minimize effects to the federally threatened clay reed-mustard, the Bureau of Land Management (BLM) in coordination with the U.S. Fish and

Notice	Description/Purpose
	Wildlife Service (Service) developed the following avoidance and minimization measures. Integration of and adherence to these measures will help ensure the activities carried out during oil and gas development (including but not limited to drilling, production, and maintenance) are in compliance with the Endangered Species Act (ESA). For the purposes of this document, the following terms are so defined: Potential habitat is defined as areas which satisfy the broad criteria of the species habitat description; usually determined by preliminary, in-house assessment. Suitable habitat is defined as areas which contain or exhibit the specific components or constituents necessary for plant persistence; determined by field inspection and/or surveys; may or may not contain clay reed-mustard; habitat descriptions can be found in Federal Register Notice and species recovery plan links at <http://www.fws.gov/endangered/wildlife.html>. Occupied habitat is defined as areas currently or historically known to support clay reed-mustard; synonymous with “known habitat.” The following avoidance and minimization measures should be included in the Plan of Development: 1. Pre-project habitat assessments will be completed across 100% of the project disturbance area within potential habitat prior to any ground disturbing activities to determine if suitable clay reed-mustard habitat is present. 2. Site inventories will be conducted within suitable habitat to determine occupancy. Where standard surveys are technically infeasible and otherwise hazardous due to topography, slope, etc., suitable habitat will be assessed and mapped for avoidance (hereafter, “avoidance areas”); in such cases, in general, 300-foot buffers will be maintained between surface disturbance and avoidance areas. However, site specific distances will need to be approved by FWS and BLM when disturbance will occur upslope of habitat. Where conditions allow, inventories: a. Must be conducted by qualified individual(s) and according to BLM and Service accepted survey protocols, b. Will be conducted in suitable and occupied habitat for all areas proposed for surface disturbance prior to initiation of project activities and within the same growing season, at a time when the plant can be detected (usually May 1st to June 5th, in the Uintah Basin; however, surveyors should verify that the plant is flowering by contacting a BLM or FWS botanist or demonstrating that the nearest known population is in flower), c. Will occur within 300 feet from the edge of the proposed right-of-way for surface pipelines or roads; and within 300 feet from the perimeter of disturbance for the proposed well pad including the well pad, d. Will include, but not be limited to, plant species lists and habitat characteristics, and e. Will be valid until May 1st the following year. 3. Design project infrastructure to minimize impacts within suitable habitat²: a. Where standard surveys are technically infeasible, infrastructure and activities will avoid all suitable habitat (avoidance areas) and incorporate 300-foot

Notice	Description/Purpose
	buffers, in general; however, site specific distances will need to be approved by FWS and BLM when disturbance will occur upslope of habitat, b. Reduce well pad size to the minimum needed, without compromising safety, c. Limit new access routes created by the project, d. Roads and utilities should share common right-of-ways where possible, e. Reduce the width of right-of-ways and minimize the depth of excavation needed for the road bed; where feasible, use the natural ground surface for the road within habitat, f. Place signing to limit off-road travel in sensitive areas, and g. Stay on designated routes and other cleared/approved areas. 4. Within occupied habitat³, project infrastructure will be designed to avoid direct disturbance and minimize indirect impacts to populations and to individual plants: a. Where standard surveys are technically infeasible, infrastructure and activities will avoid all suitable habitat (avoidance areas) and incorporate 300-foot buffers, , in general; however, site specific distances will need to be approved by FWS and BLM when disturbance will occur upslope of habitat, b. Follow the above recommendations (3.) for project design within suitable habitats, c. To avoid water flow and/or sedimentation into occupied habitat and avoidance areas, silt fences, hay bales, and similar structures or practices will be incorporated into the project design; appropriate placement of fill is encouraged, d. Construction of roads will occur such that the edge of the right of way is at least 300 feet from any plant and 300 feet from avoidance areas, e. Roads will be graveled within occupied habitat; the operator is encouraged to apply water for dust abatement to such areas from May 1st to June 5th (flowering period); dust abatement applications will be comprised of water only, f. The edge of the well pad should be located at least 300 feet away from plants and avoidance areas, in general; however, site specific distances will need to be approved by FWS and BLM when disturbance will occur upslope of habitat, g. Surface pipelines will be laid such that a 300-foot buffer exists between the edge of the right of way and plants and 300 feet between the edge of right of way and avoidance areas; use stabilizing and anchoring techniques when the pipeline crosses suitable habitat to ensure pipelines don't move towards the population; site specific distances will need to be approved by FWS and BLM when disturbance will occur upslope of habitat, h. Construction activities will not occur from May 1st through June 5th within occupied habitat, i. Before and during construction, areas for avoidance should be visually identifiable in the field, e.g., flagging, temporary fencing, rebar, etc.,

Notice	Description/Purpose
	j. Where technically and economically feasible, use directional drilling or multiple wells from the same pad, k. Place produced oil, water, or condensate tanks in centralized locations, away from occupied habitat, and l. Minimize the disturbed area of producing well locations through interim and final reclamation. Reclaim well pads following drilling to the smallest area possible. 5. Occupied clay reed-mustard habitats within 300 feet of the edge of the surface pipelines' right of ways, 300 feet of the edge of the roads' right of ways, and 300 feet from the edge of the well pad shall be monitored for a period of three years after ground disturbing activities. Monitoring will include annual plant surveys to determine plant and habitat impacts relative to project facilities. Annual reports shall be provided to the BLM and the Service. To ensure desired results are being achieved, minimization measures will be evaluated and may be changed after a thorough review of the monitoring results and annual reports during annual meetings between the BLM and the Service. 6. Re-initiation of section 7 consultation with the Service will be sought immediately if any loss of plants or occupied habitat for the clay reed-mustard 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.
T&E-21	SHRUBBY REED – MUSTARD (SCHOENCRAMBE SUFFRUTESCENS) The Lessee/Operator is given notice that the lands in this parcel contain suitable habitat for shrubby reed-mustard under the Endangered Species Act. The following avoidance and minimization measures have been developed to facilitate review and analysis of any submitted permits under the authority of this lease. In order to minimize effects to the federally endangered shrubby reed-mustard, the Bureau of Land Management (BLM) in coordination with the U.S. Fish and Wildlife Service (Service) developed the following avoidance and minimization measures. Integration of and adherence to these measures will help ensure the activities carried out during oil and gas development (including but not limited to drilling, production, and maintenance) are in compliance with the Endangered Species Act (ESA). For the purposes of this document, the following terms are so defined: Potential habitat is defined as areas which satisfy the broad criteria of the species habitat description; usually determined by preliminary, in-house assessment. Suitable habitat is defined as areas which contain or exhibit the specific components or constituents necessary for plant persistence; determined by field inspection and/or surveys; may or may not contain shrubby reed-mustard; habitat descriptions can be found in the Federal Register 52(193):37416-37420 and in the U.S. Fish and Wildlife Service's 1994 Utah Reed-Mustards Recovery Plan (http://www.fws.gov/endangered/wildlife.html). Occupied habitat is defined as areas currently or historically known to support shrubby reed-mustard;

Notice	Description/Purpose
	synonymous with “known habitat.” The following avoidance and minimization measures should be included in the Plan of Development: 1. Pre-project habitat assessments will be completed across 100% of the project disturbance area within potential habitat prior to any ground disturbing activities to determine if suitable shrubby reed-mustard habitat is present. 2. Within suitable habitat, site inventories will be conducted to determine occupancy. Inventories: a. Must be conducted by qualified individual(s) and according to BLM and Service accepted survey protocols, b. Will be conducted in suitable and occupied habitat for all areas proposed for surface disturbance prior to initiation of project activities and within the same growing season, at a time when the plant can be detected (April 15th to August 1st, unless extended by the BLM), c. Will occur within 300 feet from the edge of the proposed right-of-way for surface pipelines or roads; and within 300 feet from the perimeter of disturbance for the proposed well pad including the well pad, d. Will include, but not be limited to, plant species lists and habitat characteristics, and e. Will be valid until April 15th the following year. 3. Design project infrastructure to minimize impacts within suitable habitat: a. Reduce well pad size to the minimum needed, without compromising safety, b. Limit new access routes created by the project, c. Roads and utilities should share common right-of-ways where possible, d. Reduce the width of right-of-ways and minimize the depth of excavation needed for the road bed; where feasible, use the natural ground surface for the road within habitat, e. Place signing to limit off-road travel in sensitive areas, and f. Stay on designated routes and other cleared/approved areas. 4. Within occupied habitat, project infrastructure will be designed to avoid direct disturbance and minimize indirect impacts to populations and to individual plants: a. Follow the above (3.) recommendations for project design within suitable habitats, b. Construction of roads will occur such that the edge of the right of way is at least 300’ from any plant, c. Roads will be graveled within occupied habitat; the operator is encouraged to apply water for dust abatement to such areas from April 15th to May 30th (flowering period); dust abatement applications will be comprised of water only,

Notice	Description/Purpose
	d. The edge of the well pad should be located at least 300 feet away from plants, e. Surface pipelines will be laid such that a 300-foot buffer exists between the edge of the right of way and the plants, use stabilizing and anchoring techniques when the pipeline crosses the white shale strata to ensure the pipelines don't move towards the population, f. Construction activities will not occur from April 15th through May 30th within occupied habitat, g. Before and during construction, areas for avoidance should be visually identifiable in the field, e.g., flagging, temporary fencing, rebar, etc., h. Where technically and economically feasible, use directional drilling or multiple wells from the same pad, i. Designs will avoid concentrating water flows or sediments into occupied habitat, j. Place produced oil, water, or condensate tanks in centralized locations, away from occupied habitat, and k. Minimize the disturbed area of producing well locations through interim and final reclamation. Reclaim well pads following drilling to the smallest area possible. 5. Occupied shrubby reed-mustard habitats within 300 feet of the edge of the surface pipeline right of ways, 300 feet of the edge of the road right of ways, and 300 feet from the edge of well pads shall be monitored for a period of three years after ground disturbing activities. Monitoring will include annual plant surveys to determine plant and habitat impacts relative to project facilities. Annual reports shall be provided to the BLM and the Service. To ensure desired results are being achieved, minimization measures will be evaluated and may be changed after a thorough review of the monitoring results and annual reports during annual meetings between the BLM and the Service. 6. Re-initiation of section 7 consultation with the Service will be sought immediately if any loss of plants or occupied habitat for the shrubby reed-mustard 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.
T&E-22	UTE LADIES' TRESSES (SPIRANTHES DILUVIALIS) The Lessee/Operator is given notice that the lands in this parcel contain suitable habitat for Ute ladies'-tresses under the Endangered Species Act (ESA). The following avoidance and minimization measures have been developed to facilitate review and analysis of any submitted permits under the authority of this lease. In order to minimize effects to the federally threatened Ute ladies'-tresses, the BLM in coordination with the USFWS, developed the following avoidance and minimization measures. Integration of and adherence to these measures will help ensure the activities carried out during oil and gas development (including but not

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	limited to drilling, production, and maintenance) are in compliance with the ESA. Ute ladies'-tresses habitat is provided some protection under Executive Orders 11990 (wetland protection) and 11988 (floodplain management), as well as section 404 of the Clean Water Act. For the purposes of this document, the following terms are so defined: Potential habitat is defined as areas which satisfy the broad criteria of the species habitat description; usually determined by preliminary, in-house assessment. Suitable habitat is defined as areas which contain or exhibit the specific components or constituents necessary for plant persistence; determined by field inspection and/or surveys; may or may not contain Ute ladies'-tresses. Habitat descriptions can be found in Recovery Plans and Federal Register Notices for the species at http://www.fws.gov/endangered/wildlife.html. Occupied habitat is defined as areas currently or historically known to support Ute ladies'-tresses; synonymous with "known habitat. Although plants, habitat, or populations may be afforded some protection under these regulatory mechanisms, the following conservation measures should be included in the Plan of Development: 1. Pre-project habitat assessments will be completed across 100% of the project disturbance area, including areas where hydrology might be affected by project activities, within potential habitat prior to any ground disturbing activities to determine if suitable Ute ladies'-tresses habitat is present. 2. Within suitable habitat, site inventories will be conducted to determine occupancy. Inventories: a. Must be conducted by qualified individual(s) and according to BLM and USFWS accepted survey protocols, b. Will be conducted in suitable and occupied habitat for all areas proposed for surface disturbance or areas that could experience direct or indirect changes in hydrology from project activities, c. Will be conducted prior to initiation of project activities and within the same growing season, at a time when the plant can be detected, and during appropriate flowering periods (usually August 1st and August 31st in the Uintah Basin; however, surveyors should verify that the plant is flowering by contacting a BLM or USFWS botanist or demonstrating that the nearest known population is in flower), d. Will occur within 300' from the edge of the proposed right-of-way for surface pipelines or roads; and within 300' from the perimeter of disturbance for the proposed well pad including the well pad, e. Will include, but not be limited to, plant species lists, habitat characteristics, source of hydrology, and estimated hydroperiod, and f. Will be valid until August 1st the following year. 3. Design project infrastructure to minimize direct or indirect impacts to suitable habitat both within and downstream of the project area: a. Alteration and disturbance of hydrology will not be permitted, b. Reduce well pad size to the minimum needed, without compromising safety,

Notice	Description/Purpose
	c. Limit new access routes created by the project, d. Roads and utilities should share common right-of-ways where possible, e. Reduce width of right-of-ways and minimize the depth of excavation needed for the road bed, f. Construction and right-of-way management measures should avoid soil compaction that would impact Ute ladies' tresses habitat, g. Off-site impacts or indirect impacts should be avoided or minimized (i.e. install berms or catchment ditches to prevent spilled materials from reaching occupied or suitable habitat through either surface or groundwater), h. Place signing to limit off-road travel in sensitive areas, i. Stay on designated routes and other cleared/approved areas, and j. All disturbed areas will be re-vegetated with species approved by USFWS and BLM botanists. 4. Within occupied habitat, project infrastructure will be designed to avoid direct disturbance and minimize indirect impacts to populations and to individual plants: a. Follow the above (#3) recommendations for project design within suitable habitats, b. Buffers of 300 feet minimum between right of way (roads and surface pipelines) or surface disturbance (well pads) and plants and populations will be incorporated, c. Surface pipelines will be laid such that a 300-foot buffer exists between the edge of the right of way and the plants, using stabilizing and anchoring techniques when the pipeline crosses habitat to ensure the pipelines don't move towards the population, d. Before and during construction, areas for avoidance should be visually identifiable in the field (e.g., flagging, temporary fencing, rebar, etc.), e. Where technically and economically feasible, use directional drilling or multiple wells from the same pad, f. Designs will avoid altering site hydrology and concentrating water flows or sediments into occupied habitat, g. Place produced oil, water, or condensate tanks in centralized locations, away from occupied habitat, with berms and catchment ditches to avoid or minimize the potential for materials to reach occupied or suitable habitat, and h. Minimize the disturbed area of producing well locations through interim and final reclamation. Reclaim well pads following drilling to the smallest area possible. 5. Occupied Ute ladies'-tresses habitats within 300' of the edge of the surface pipelines' right-of-ways, 300' of the edge of the roads' right-of-ways, and 300' from the edge of the well pad shall be monitored for a period of three years after ground disturbing activities. Monitoring will include annual plant surveys to determine plant and habitat impacts relative to project facilities. Habitat impacts

Notice	Description/Purpose
	include monitoring any changes in hydrology due to project related activities. Annual reports shall be provided to the BLM and the USFWS. To ensure desired results are being achieved, minimization measures will be evaluated and may be changed after a thorough review of the monitoring results and annual reports during annual meetings between the BLM and the Service. 6. Re-initiation of section 7 consultation with the USFWS will be sought immediately if any loss of plants or occupied habitat for the Ute ladies'-tresses 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 USFWS to ensure continued compliance with the ESA.
T&E-23	COLORADO RIVER ENDANGERED FISH The lessee/operator is given notice in order to minimize effects to critical habitats of endangered fish in the Colorado and Green Rivers, surface-disturbing activities within the 100-year floodplain of the Colorado River, Green River, and all associated back waters would not be allowed. Other avoidance and minimization measures include: • Surveys would be required prior to operations unless species occupancy and distribution information is complete and available. All surveys must be conducted by qualified individuals. Lease activities would require monitoring throughout the duration of the project. • To ensure desired results are being achieved, minimization measures would be evaluated and, if necessary, Section 7 consultation reinitiated. • Water production would be managed to ensure maintenance or enhancement of riparian habitat. • Avoid loss or disturbance of riparian habitats. • Conduct watershed analysis for leases in designated critical habitat and overlapping major tributaries in order to determine toxicity risk from permanent facilities. • Implement the Utah Oil and Gas Pipeline Crossing Guidance. In areas adjacent to 100-year floodplains, particularly in systems prone to flash floods, analyze the risk for flash floods to impact facilities, and use closed loop drilling, and pipeline burial or suspension according to the Utah Oil and Gas Pipeline Crossing Guidance to minimize the potential for equipment damage and resulting leaks or spills. • Water depletions from any portions of the Upper Colorado River drainage basin are considered to adversely affect and adversely modify the critical habitat of the endangered fish species (bonytail, Colorado pikeminnow, humpback chub, and razorback sucker). Section 7 consultation would be completed with the U.S. Fish and Wildlife Service (USFWS) prior to any such water depletions.

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	- Additional measures to avoid or minimize effects to the species may be developed and implemented in consultation with the USFWS between the lease sale stage and lease development stage to ensure continued compliance with the ESA. U.S. Fish and Wildlife Service (Service) Measures to Minimize Effects of Surface Water Pumping to Endangered Colorado River Fish Issue: Endangered larval fish are very small (<0.5 inches total length) and incapable of directed swimming from the time of hatching through the first 2-4 weeks of their life. Depending on the water year, larval fish may be present in the Green, Colorado, Gunnison, and Yampa Rivers from as early as April 1 to as late as August 31 (earlier in dry years; later in wet years). Young of the year endangered fish are the most susceptible to entrainment. Goal: Minimize entrainment of Federally listed species into pumps. Measures: - The best method to avoid entrainment is to pump from an off-channel location – one that does not connect to the river during high spring flows. An infiltration gallery constructed in a Service approved location is best. - If the pump head is located in the river channel the following stipulations apply: - Do not situate the pump in a low-flow or no-flow area, as these habitats tend to concentrate larval fishes. - Limit the amount of pumping, to the greatest extent possible, during that period of the year when larval fish may be present (see above). - Limit the amount of pumping, to the greatest extent possible, during the midnight hours (10 pm to 2 am), as larval drift studies indicate that this is a period of greatest daily activity. Dusk and the afternoon are the preferred pumping times, as larval drift abundance is lowest during this time. - Screen all pump intakes with 3/32" mesh material. - Approach velocities for intake structures should follow the National Marine Fisheries Service's document "Fish Screening Criteria for Anadromous Salmonids." For projects with an in-stream intake that operate in stream reaches where larval fish may be present, the approach velocity should not exceed 0.33 feet per second (ft/s). - Report any fish impinged on the intake screen or entrained into irrigation canals to the Service (801-975-3330) or the Utah Division of Wildlife Resources: Northeastern Region 152 East 100 North, Vernal, UT 84078 Phone: 435-781-9453 Southeastern Region 475 West Price River Drive, Suite C, Price, UT 84501 Phone: 435-636-0260
T&E-25	MEXICAN SPOTTED OWL The lessee/operator is given notice that the lands in this parcel contain suitable or designated Critical Habitat for MSO. In order to protect MSO habitat and avoid

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	negative impacts to the species, 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). Current avoidance and minimization measures include the following: • Surveys would be required prior to implementation of the proposed action. All surveys must be conducted by qualified individual(s) acceptable to the BLM. 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. • Document type of activity, acreage and location of direct habitat impacts, type and extent of indirect impacts relative to location of suitable owl habitat. Document if action is temporary or permanent. Activities may require monitoring throughout the duration of the project. To ensure desired results are being achieved, minimization measures would be evaluated, and, if necessary, Section 7 consultation reinitiated. Any activity that includes water production should be managed to ensure maintenance of enhancement of riparian habitat. 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. For all temporary actions that may impact owls or suitable habitat: 1. 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. 2. If the action would occur during a breeding season, a survey for owls is required prior to commencing the activity. If owls are found, the activity should be delayed until outside of the breeding season. 3. Rehabilitate access routes created by the project through, such means as raking out scars, re-vegetation, gating access points, etc. For all permanent actions that may impact owls or suitable habitat: 1. Survey two consecutive years for owls, according to accepted protocol prior to commencing activities. 2. If owls are found, no disturbing actions would occur within 0.5-miles of an identified site. If nest site is unknown, no activity would occur within the designated current and historic Protected Activity Center (PAC). 3. Avoid permanent structures within 0.5-mile of suitable habitat unless surveyed and not occupied. 4. 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

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	noise does not encroach upon a 0.5-mile buffer for suitable habitat, including canyon rims. 5. Limit disturbances to and within suitable habitat by staying on designated and/or approved routes. 6. Limit new access routes created by the project. 7. 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 ESA, and the regulations at 43 Code of Federal Regulations (CFR) 3101.1-2.
T&E-26	SOUTHWESTERN WILLOW FLYCATCHER HABITAT (RIPARIAN AREAS) The lessee/operator is given notice that the lands in this parcel contains riparian habitat within the range for southwestern willow flycatcher. In order to protect southwestern willow flycatcher habitat and avoid negative impacts to the species, 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 nesting season. A temporary action is completed prior to the following breeding season leaving no permanent structures and resulting in no permanent habitat loss. A permanent action continues for more than one breeding season and/or causes a loss of habitat or displaces flycatchers through disturbances, i.e., creation of a permanent structure. Current avoidance and minimization measures include the following: 1. Surveys would be required prior to operations unless species occupancy and distribution information is complete and available. All surveys must be conducted by qualified individual(s) and be conducted according to protocol. 2. Activities would require monitoring throughout the duration of the project. To ensure desired results are being achieved, minimization measures would be evaluated and, if necessary, Section 7 consultation reinitiated. 3. Water production would be managed to ensure maintenance or enhancement of riparian habitat. 4. Where technically and economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and eliminate drilling in suitable riparian habitat. Ensure that such directional drilling does not intercept or degrade alluvial aquifers. 5. Activities would maintain a 330 feet buffer from suitable riparian habitat year long. 6. Activities within 0.25-mile of occupied breeding habitat would not occur during the breeding season of April 15 to August 15. 7. Noise emissions within 0.25-miles of suitable habitat for the southwestern willow flycatcher will not exceed baseline conditions during the breeding season of April 15 to August 15.

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	8. Ensure that water extraction or disposal practices do not result in change of hydrologic regime that would result in loss or degradation of riparian habitat. 9. Re-vegetate with native species all areas of surface disturbance within riparian areas and/or adjacent land. 10. Avoid loss or disturbance of riparian habitats. Additional measures to avoid or minimize effects to the species may be developed and implemented in consultation with the USFWS between the lease sale stage and lease development stage to ensure continued compliance with the ESA.
T&E-27	YELLOW-BILLED CUCKOO The lessee/operator is given notice that the lands in or adjacent to this parcel contain potentially suitable habitat that falls within the range for western yellow-billed cuckoo, a Federally listed species. Avoidance or use restrictions may be placed on portions of the lease. Application of appropriate measures will depend whether the action is temporary or permanent, and whether it occurs within or outside the breeding and 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 could continue for more than one breeding season and/or cause a loss of habitat or displace western yellow-billed cuckoos through disturbances. 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 (ESA). 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 ESA, Section 7 consultation at the permit stage. Avoidance and minimization measures include the following: 1. Habitat suitability within the parcel and/or within a 0.5-mile buffer of the parcel will be identified prior to lease development to identify potential survey needs. Habitat suitability should be determined in accordance with Guidelines for the identification of suitable habitat for WYBCU in Utah. 2. Protocol Breeding Season Surveys will be required in suitable habitats prior to operations unless species occupancy and distribution information is complete and available. All Surveys must be conducted by permitted individual(s), and be conducted according to protocol. 3. For all temporary actions that may impact cuckoo or suitable habitat: a. If action occurs entirely outside of the cuckoo breeding season (June 1 to August 31), and leaves no structure or habitat disturbance, action can proceed without a presence/absence survey. b. If action is proposed between June 1 to August 31, presence/absence surveys for cuckoo will be conducted prior to commencing activity. If cuckoo are detected, activity should be delayed until September 1. c. Eliminate access roads created by the project through such means as raking out scars, revegetation, gating access points, etc. 4. For all permanent actions that may impact cuckoo or suitable habitat:

Notice	Description/Purpose
	a. Protocol level surveys by permitted individuals will be conducted prior to commencing activities. b. If cuckoos are detected, no activity will occur within 0.25-mile of occupied habitat. c. Avoid drilling and permanent structures within 0.25-mile of suitable habitat unless absence is determined according to protocol level survey conducted by permitted individual(s). d. Ensure noise levels at 0.25-mile from suitable habitat do not exceed baseline conditions. Placement of permanent noise-generating facilities should be determined by a noise analysis to ensure noise does not encroach upon the 0.25-mile buffer for suitable habitat. 5. Temporary or permanent actions will require monitoring throughout the duration of the project to ensure that western yellow-billed cuckoo or its habitat is not affected in a manner or to an extent not previously considered. Avoidance and minimization measures will be evaluated throughout the duration of the project. 6. Water produced as by-product of drilling or pumping will be managed to ensure maintenance or enhancement of riparian habitat. 7. Where technically or economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and eliminate drilling in suitable habitat. Ensure that such directional drilling does not intercept or degrade alluvial aquifers. 8. Ensure that water extraction or disposal practices do not result in a change of hydrologic regime that would result in loss or degradation of riparian habitat 9. Re-vegetate with native species all areas of surface disturbance within riparian areas and/or adjacent uplands. 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.
T&E-28	CALIFORNIA CONDOR (POTENTIAL HABITAT) The lessee/operator is given notice that the lands located in this parcel contain potential habitat for the California condor. Avoidance or use restrictions may be placed on portions on areas known or suspected to be used by condors. Application of appropriate measures would 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 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). Current avoidance and minimization measures include the following:

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	1. The Peregrine Fund will be contacted early and throughout project design and implementation to determine and monitor the locations and status of California condors in or near the project area. 2. Surveys would be required prior to operations in suitable habitat, 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 protocols. 3. All workers will be informed about potential condor presence. 4. If condors are present within the project area the Peregrine Fund will be contacted. If there is any potential that the project will affect condors the USFWS will be contacted immediately. 5. The project area will be kept clean (e.g., trash disposed of, tools and materials picked up) in order to minimize the possibility of condors accessing inappropriate materials. 6. To prevent water contamination and potential condor poisoning, a hazardous material (including vehicle fluids) leakage and spill plan will be developed and implemented. The plan will include provisions for immediate clean-up of any hazardous substance, and will outline how each hazardous substance will be treated in case of leakage or spill. The plan will be reviewed by the district biologist to insure that condors are adequately addressed. 7. If surveys result in positive identification of condor use, all lease activities would require monitoring throughout the duration of the project to ensure desired results of applied mitigation and protection. Minimization measures would be evaluated during development and, if necessary, Section 7 consultation may be reinitiated. 8. Temporary activities within 1.0-mile of nest sites would not occur during the breeding season. 9. Temporary activities within 0.5-miles of established roosting sites or areas would not occur during the season of use, which is from August 1 to November 30; unless the area has been surveyed according to protocols consulted on with USFWS and determined to be unoccupied. 10. No permanent infrastructure would be placed within 1.0-mile of nest sites. 11. No permanent infrastructure would be placed within 0.5-miles of established roosting sites or areas. 12. Remove big game carrion to 100 feet from on lease roadways occurring within foraging range. 13. 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. 14. Re-initiation of Section 7 consultation with the USFWS would be sought immediately if mortality or disturbance to California condors is anticipated as a

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	result of project activities. Additional site-specific measures may also be employed to avoid or minimize effects to the species. These additional measures would be developed and implemented in consultation with the USFWS 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 would be developed and implemented in consultation with the USFWS to ensure continued compliance with the ESA.
T&E-29	JONES CYCLADENIA (POTENTIAL, SUITABLE AND OCCUPIED HABITAT) The lessee/operator is given notice that the lands located in this parcel contain potential habitat for Jones cycladenia. In order to minimize effects to the Federally threatened Jones cycladenia, the BLM, in coordination with the USFWS has developed the following avoidance and minimization measures. Implementation of these measures will help ensure the activities carried out during oil and gas development (including but not limited to drilling, production, and maintenance operations) are in compliance with the ESA. For the purposes of this document, the following terms are so defined: potential habitat is defined as areas that satisfy the broad criteria of the species habitat description, usually determined by preliminary, in-house assessment. Suitable habitat is defined as areas that contain or exhibit the specific components or constituents necessary for plant persistence determined by field inspection and/or surveys; it may or may not contain Jones cycladenia; habitat descriptions can be found in Federal Register Notice and species recovery plan links at <http://www.fws.gov/endangered/species/>. Occupied habitat is defined as areas currently or historically known to support Jones cycladenia, synonymous with “known habitat.” The following avoidance and minimization measures should be included in the Plan of Development: 1. Pre-project habitat assessments will be completed across 100 percent of the project disturbance area within potential habitat prior to any ground disturbing activities to determine if suitable Jones cycladenia habitat is present. 2. Species surveys will be conducted within suitable habitat to determine occupancy. Where standard surveys are technically infeasible and otherwise hazardous, due to topography, slope, etc., suitable habitat will be assessed and mapped for avoidance (hereafter, “avoidance areas”); in such cases, 300 foot buffers will be maintained between surface disturbance and avoidance areas. However, site specific distances will need to be approved by USFWS and BLM when disturbance will occur upslope of habitat. Where conditions allow, surveys: a. Must be conducted by qualified individuals(s) and according to BLM and Service accepted survey protocols. b. Will be conducted in suitable and occupied habitat for all areas proposed for surface disturbance prior to initiation of project activities and within the same growing season at a time when the plant can be detected (usually April 15 to June 5; however, surveyors should verify that the plant is flowering by contacting a

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	BLM or USFWS botanist or demonstrating that the nearest known population is in flower), c. Will occur within 300 feet from the edge of the proposed right-of-way (ROW) and/or project disturbance for surface pipelines, roads, wellpads, and other facilities requiring removal of vegetation, d. Will include, but not be limited to, plant species lists and habitat characteristics. e. Will be valid until April 15 of the following year. f. Clearance surveys in occupied habitat will be combined with historic plant location data for that particular site to delineate the outer boundary of occupied habitat. The 300 foot avoidance buffer will then be applied to the outer boundary of occupied habitat for that site. This evaluation will occur in coordination with the BLM and Service to ensure that the appropriate buffer is applied to protect both active and dormant Jones Cycladenia plants in occupied habitat. g. Electronic copies of clearance survey reports (included appendices) and GIS shape files will be sent no later than December 31st to each of the following: - Utah Natural Heritage Program (with copies of NHP field survey forms); - Applicable/affected land owners and/or management agencies; and - U.S. Fish and Wildlife Service Utah Field Office (mailing address: 2369 West Orton Circle, Suite 50, West Valley City, Utah 84119). 3. Design project infrastructure to minimize impacts within suitable habitat: a. Where standard surveys are technically infeasible, infrastructure and activities will avoid all suitable habitat (avoidance areas) and incorporate 300 foot buffers, in general; however, site-specific distances will need to be approved by USFWS and BLM when disturbance will occur upslope of habitat. b. Reduce well pad size to the minimum needed without compromising safety. c. Where technically and economically feasible, use directional drilling or multiple wells from the same pad. d. Roads and utilities should share common ROWs where possible. e. Reduce the width of ROWs and minimize the depth of excavation needed for the road bed; where feasible, use the natural ground surface for the road within habitat. f. Place signing to limit off-road travel in sensitive areas. g. Stay on designated routes and other cleared/approved areas. h. All disturbed areas will be re-vegetated with species native to the region, or seed mixtures approved by the action agency and USFWS. 4. Where there is occupied habitat, project infrastructure will be designed to avoid direct disturbance and indirect impacts to populations and to individual plants:

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	a. Follow the above recommendations in Section 3 for project design within suitable habitats. b. To avoid water flow and/or sedimentation into occupied habitat and avoidance areas, silt fences, hay bales, and similar structures or practices will be incorporated into the project design; appropriate placement of fill is encouraged. c. Construction of roads will occur such that the edge of the ROW is at least 300 feet from: 1) any plant; 2) the outer boundary of occupied habitat and; 3) avoidance areas. d. Existing roads will be graveled within 300 feet of occupied habitat; the operator is encouraged to apply water for dust abatement to such areas from April 15 to June 5 (flowering period); dust abatement applications will be comprised of water only. e. The edge of the well pad should be located at least 300 feet away from plants and avoidance areas, in general; however, site specific distances will need to be approved by USFWS and BLM when disturbance will occur upslope of habitat. f. Surface pipelines will be laid such that a 300 foot buffer exists between the edge of the ROW and plants and 300 feet between the edge of ROW and avoidance areas; use stabilizing and anchoring techniques when the pipeline crossed suitable habitat to ensure pipelines don't move towards the population; site specific distances will need to be approved by USFWS and BLM when disturbance will occur upslope of habitat. g. Construction activities will not occur within occupied habitat. h. Before and during construction, areas for avoidance should be visually identifiable in the field, e.g., flagging temporary fencing, rebar, etc. i. A qualified botanist will be onsite during construction to monitor the surface disturbance activity and assist with implementation of applicable conservation measures. j. Place produced oil, water, or condensate tanks in centralized locations, away from occupied habitat. k. Minimize the disturbed area of producing well locations through interim and final reclamation. Reclaim well pads following drilling to the smallest area possible. 5. Dust abatement and reduced speed limits will be applied during flowering dates (April 15 through June 5) within 300 feet of suitable and occupied habitat, including unoccupied suitable habitat. 6. For projects that cannot implement the measures or avoidance buffers identified in number 4 above, site specific conservation measures will be developed in coordination with USFWS. Occupied Jones cycladenia habitats within 300 feet of the edge of the surface pipelines' ROWs, 300 feet of the edge of the roads' ROWs, and 300 feet from the edge of the well pad shall be monitored for a period of three years after ground disturbing activities. Monitoring will include annual plant surveys to determine plant and habitat impacts relative to project facilities. Annual reports shall be provided to the BLM

Notice	Description/Purpose
	and the USFWS. To ensure desired results are being achieved, minimization measures will be evaluated and may be changed after a thorough review of the monitoring results and annual reports during annual meetings between the BLM and the USFWS. 7. Re-initiation of Section 7 consultation with the USFWS will be sought immediately if any loss of plants or occupied habitat for the Jones cycladenia 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 USFWS to ensure continued compliance with the ESA.
T&E-30	NAVAJO SEDGE (POTENTIAL, SUITABLE, AND OCCUPIED HABITAT) The lessee/operator is given notice that the lands located in this parcel contain potential habitat for Navajo sedge (<i>Carex specuicola</i>). In order to minimize effects to the Federally threatened Navajo sedge, the BLM, in coordination with the USFWS (Service) has developed the following avoidance and minimization measures. Implementation of these measures will help ensure the activities carried out during mineral leasing and development (including but not limited to drilling, production, and maintenance operations) are in compliance with the Endangered Species Act. For the purposes of this document, the following terms are so defined: Potential habitat is defined as areas which satisfy the broad criteria of the species habitat description, usually determined by preliminary, in-house assessment. Suitable habitat is defined as areas which contain or exhibit the specific components or constituents necessary for plant persistence, determined by field inspection and/or surveys. Habitat descriptions can be found in Federal Register Notice and species recovery plan links at: http://www.fws.gov/endangered/species/. Occupied habitat is defined as areas currently or historically known to support Navajo sedge; synonymous with “known habitat.” The following avoidance and minimization measures should be included in the plan of development: 1. Pre-project habitat assessments will be completed across 100 percent of the project disturbance area within potential habitat prior to any ground disturbing activities to determine if suitable Navajo sedge habitat is present. 2. Species surveys will be conducted within suitable habitat to determine occupancy. Where standard surveys are technically infeasible and otherwise hazardous due to topography, slope, etc., suitable habitat will be assessed and mapped for avoidance (hereafter, “avoidance areas”). In such cases, a) 300 foot buffers will be maintained between surface disturbance and avoidance areas, or b) 1.25-mile buffers will be maintained between avoidance areas and subsurface disturbance activities (including drilling), water depletions, or other actions that may result in changes to the local hydrology and avoidance areas. However, site specific distances will need to be approved by Service and BLM when surface disturbance will occur upslope of habitat. Where conditions allow, surveys:

Notice	Description/Purpose
	a. Must be conducted by a qualified botanist(s), and according to BLM and USFWS accepted survey protocols (USFWS 2011); outside contractors must be considered a Carex spp. expert and approved by BLM and USFWS. b. Will be conducted in suitable habitat for all areas proposed for surface disturbance prior to initiation of project activities and within the same growing season, at a time when the plant can be positively identified (usually June 1st to September 30th, however, surveyors should verify that the plant is flowering by contacting a BLM or USFWS Carex spp. expert or demonstrating that the nearest known population is in flower). c. Will occur within 300 feet from the edge of the proposed right-of-way and/or project disturbance for surface pipelines, roads, well pads, and other facilities requiring removal of vegetation. d. Will occur within 1.25-miles of proposed water depletions or other actions that will result in changes to the local hydrology. e. Will include, but not be limited to, plant species lists and habitat characteristics. f. Will be valid until June 1 of the following year. g. Electronic copies of clearance survey reports (included appendices) and GIS shape files will be sent no later than December 31st to each of the following: - Utah Natural Heritage Program (with copies of NHP field survey forms); - Applicable/affected land owners and/or management agencies; and - U.S. Fish and Wildlife Service Utah Field Office (mailing address: 2369 West Orton Circle, Suite 50, West Valley City, Utah 84119). 3. Design project infrastructure to minimize impacts within suitable habitat where surveys are technically infeasible. a. For surface-disturbing activities: Infrastructure and activities will avoid all suitable habitat (avoidance areas) and incorporate 300 foot buffers; however, site specific buffer distances will need to be approved by Service and BLM when disturbance will occur upslope of habitat. b. For subsurface activities (including drilling), water depletions, or hydrologic alteration activities: Infrastructure and activities will avoid all suitable habitat (avoidance areas) and incorporate 1.25-mile surface and subsurface buffers; however, site specific buffer distances will need to be approved by Service and BLM when disturbance will occur upslope of habitat. c. No surface (or subsurface) occupancy will be allowed in any down dip(s) of the strata as they could be associated with a Navajo sedge water source. Surface disturbance will not occur within a 300 foot buffer from the outer edge of the down dip(s). d. Ensure that water extraction or disposal practices do not result in change of hydrologic regime. e. Ensure above ground contaminants and byproducts are contained and properly managed.

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	f. Ensure any casings near or in aquifers are properly sealed and managed. g. Fracking will not be allowed within 1.25-miles of the edge of suitable geology, unless hydrological and botanical surveys are completed that positively identify the aquifer as entirely unassociated with any Navajo sedge populations. h. Reduce well pad size and potash mining developments to the minimum needed, without compromising safety. i. Where technically and economically feasible, use directional drilling, horizontal drilling, or multiple wells from the same pad. Ensure that directional drilling does not intercept or degrade alluvial aquifers. j. Limit new access routes created by the project. k. Roads and utilities should share common right-of ways where possible. l. Reduce the width of right-of-ways and minimize the depth of excavation needed for the road bed; where feasible, use the natural ground surface for the road within habitat. m. Place signing to limit off-road travel in sensitive areas. n. Existing roads will be graveled within 300 feet of suitable habitat; the operator is encouraged to apply water for dust abatement to such areas and within 300 feet of suitable habitat from June 1 to September 30 (flowering and fruit set period), dust abatement applications will be comprised of water only. o. Place signing to reduce vehicle speed to 15 mph or lower on dirt or gravel roads within 300 feet of suitable habitat and 25 mph or lower in the project area. p. Stay on designated routes and other cleared/approved areas. q. Minimize the disturbed area of producing well locations through interim and final reclamation. Reclaim disturbed areas following completion of activities (drilling or mining) to the smallest area possible. All disturbed areas will be re-vegetated with native species comprised of species indigenous to the area. r. Post construction monitoring for invasive species will be required. 4. Where there is occupied habitat, project infrastructure will be designed to avoid direct disturbance and indirect impacts to populations and to individual plants: a. For surface-disturbing activities: Infrastructure and activities will avoid all occupied habitat and incorporate 300 foot buffers; however, site specific buffer distances will need to be approved by Service and BLM when disturbance will occur upslope of habitat. b. For subsurface activities (including drilling), water depletions, or hydrologic alteration activities: Infrastructure and activities will avoid all suitable habitat (avoidance areas) and incorporate 1.25-mile buffers; however, site specific buffer distances will need to be approved by Service and BLM when disturbance will occur upslope of habitat. c. To avoid water flow and/or sedimentation into occupied habitat and avoidance areas, silt fences, hay bales, and similar structures or practices will be incorporated into the project design; appropriate placement of fill is encouraged.

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	d. No surface (or subsurface) occupancy will be allowed in the down dip(s) of the strata associated with the Navajo sedge water source. Surface disturbance will not occur within a 300 foot buffer from the outer edge of the down dip(s). e. Ensure that water extraction or disposal practices do not result in change of hydrologic regime. f. Ensure above ground contaminants and byproducts are contained and properly managed. g. Ensure any casings near or in aquifers are properly sealed and managed. h. Fracking will not be allowed within 1.25-miles from the edge of occupied habitat and associated water sources, unless studies are completed that positively identify the aquifer as entirely unassociated with the Navajo sedge population. i. Reduce well pad size and potash mining developments to the minimum needed, without compromising safety. j. Where technically and economically feasible, use directional drilling, horizontal drilling, or multiple wells from the same pad. Ensure that directional drilling does not intercept or degrade alluvial aquifers. k. Limit new access routes created by the project. l. Roads and utilities should share common right-of ways where possible. m. Reduce the width of right-of-ways and minimize the depth of excavation needed for the road bed, where feasible, use the natural ground surface for the road within habitat. n. Place signing to limit off-road travel in sensitive areas. o. Construction of roads will occur such that the edge of the right of way is at least 300 feet from: 1) any plant; 2) the outer boundary of occupied habitat; and 3) avoidance areas. p. Existing roads will be graveled within 300 feet of occupied habitat; the operator is encouraged to apply water for dust abatement to such areas and within 300 feet of occupied habitat from June 1 to September 30 (flowering and fruit set period); dust abatement applications will be comprised of water only. q. Place signing to reduce vehicle speed to 15 mph or lower on dirt or gravel roads within 300 feet of occupied habitat and 25 mph or lower in the project area. r. Stay on designated routes and other cleared/approved areas. s. The edge of the disturbance should be located at least 300 feet away from plants and avoidance areas, in general; however, site specific distances will need to be approved by Service and BLM when disturbance will occur upslope of habitat. t. Surface pipelines will be laid such that a 300 foot buffer exists between the edge of the right of way and plants and 300 feet between the edge of right of way and avoidance areas; use stabilizing and anchoring techniques when the pipeline crosses suitable habitat to ensure pipelines don't move towards the population; site specific distances will need to be approved by Service and BLM when disturbance will occur upslope of habitat.

Notice	Description/Purpose
	u. Construction activities will not occur within occupied habitat. v. Before and during construction, areas for avoidance should be visually identifiable in the field, e.g., flagging, temporary fencing, rebar, etc. w. A qualified botanist will be onsite during construction to monitor the surface disturbance activity and assist with implementation of applicable conservation measures (USFWS 2011). x. Place produced oil, water, condensate tanks, or any other by-products in centralized locations, away from occupied habitat. y. Minimize the disturbed area of producing well locations through interim and final reclamation. Reclaim disturbed areas following completion of activities (drilling or mining) to the smallest area possible. All disturbed areas will be re-vegetated with native species comprised of species indigenous to the area. z. Post construction monitoring for invasive species will be required. 5. For projects that cannot implement the measures or avoidance buffers identified above, site specific conservation measures will be developed in coordination with the Service. Occupied Navajo sedge habitats within: 1) 300 feet of the edge of the surface pipeline right of ways; 2) 300 feet of the edge of the road right of ways; 3) 300 feet from the edge of the development areas; and 4) 1.25-miles of subsurface activities (including drilling), water depletions or other hydrologic alteration activities shall be monitored for a period of three years after ground disturbing activities. Monitoring will include annual plant surveys to determine plant and habitat impacts relative to project facilities. Annual reports shall be provided to the BLM and the Service. To ensure desired results are being achieved, minimization measures will be evaluated and may be changed after a thorough review of the monitoring results and annual reports during annual meetings between the BLM and the Service. Reinitiation of Section 7 consultation with the Service will be sought immediately if any loss of plants or occupied habitat for the Navajo sedge 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 Service to ensure continued compliance with the ESA
T&E-31	WESTERN YELLOW-BILLED CUCKOO The Lessee/Operator is given notice that the lands in or adjacent to this parcel contain potentially suitable habitat that falls within the range for western yellow-billed cuckoo, a federally listed species. Avoidance or use restrictions may be placed on portions of the lease. Application of appropriate measures will depend upon whether the action is temporary or permanent, and whether it occurs within or outside the breeding and 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 could continue for more than one breeding season and/or cause a loss of habitat or displace western yellow-billed cuckoos through disturbances. 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,

Notice	Description/Purpose
	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. Avoidance and minimization measures include the following: 1. Habitat suitability within, and within a 0.5-mile buffer, of the proposed project analysis area will be identified prior to lease development to identify potential survey needs. 2. If suitable or proposed critical habitat is present, protocol Breeding Season Surveys will be required within, and within 0.5-mile buffer, of the proposed project analysis area prior to operations unless species occupancy and distribution information is complete and available. All Surveys must be conducted by permitted individual(s), and be conducted according to protocol. 3. For all temporary actions that may impact cuckoo or suitable habitat: a. If action occurs entirely outside of the cuckoo breeding season (June 1 – Aug 31), and leaves no structure or habitat disturbance, action can proceed without a presence/absence survey. b. If action is proposed between June 1 and August 31, presence/absence surveys for cuckoo will be conducted prior to commencing activity. If cuckoo are detected, activity should be delayed until September 1. The cuckoo survey protocol requires four surveys across the breeding season to conclude absence, thus the survey cannot conclude absence of cuckoos until mid-August. c. Eliminate access routes created by the project through such means as raking out scars, revegetation, gating access points, etc. 4. For all permanent actions that may impact cuckoo or suitable habitat: a. Habitat suitability within and within a 0.5-mile buffer of the proposed project analysis area will be identified prior to lease development to identify potential survey needs. b. Protocol level surveys by permitted individuals will be conducted within, or within a 0.5-mile buffer, of the proposed project analysis area prior to commencing activities. c. Avoid drilling and permanent structures within 0.5 miles of suitable or proposed critical habitat unless absence is determined according to protocol level surveys conducted by permitted individual(s). d. During construction and operation phases of the project, ensure noise levels at the edge of suitable habitat do not exceed baseline conditions. Placement of permanent noise-generating facilities should be determined by a noise analysis. 5. Temporary or permanent actions will require monitoring throughout the duration of the project to ensure that western yellow-billed cuckoo or its habitat is not affected in a manner or to an extent not previous considered. Avoidance and minimization measures will be evaluated throughout the duration of the project. 6. Water produced as a by-product of drilling or pumping will be managed to ensure maintenance or enhancement of riparian habitat.

Notice	Description/Purpose
	7. 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. Ensure that such directional drilling does not intercept or degrade alluvial aquifers. 8. Ensure that water extraction or disposal practices do not result in change of hydrologic regime that would result in loss or degradation of riparian habitat. 9. Re-vegetate with native species, where possible, all areas of surface disturbance within riparian areas and/or adjacent uplands. 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.
T&E-32	CISCO MILKVETCH The lessee/operator is given notice that the lands located in this parcel contain potential habitat for Cisco milkvetch (<i>Astragalus sabulosus</i>). The U.S. Fish and Wildlife Service (Service) was petitioned to list Cisco milkvetch under the Endangered Species Act (ESA) and the species' status is currently under review. Cisco milkvetch is currently a Bureau of Land Management (BLM) sensitive plant species. In order to minimize effects to the Cisco milkvetch, the BLM, in coordination with the Service has developed the following avoidance and minimization measures. Implementation of these measures will help ensure the activities carried out during oil and gas development (including but not limited to drilling, production, and maintenance operations) avoids or minimizes impacts to the species. For the purposes of this document, the following terms are so defined: Potential habitat is defined as areas which satisfy the broad criteria of the species habitat description; usually determined by preliminary, in-house assessment. Suitable habitat is defined as areas which contain or exhibit the specific components or constituents necessary for plant persistence; determined by field inspection and/or surveys; may or may not contain Cisco milkvetch; habitat descriptions can be found in NatureServe links at http://explorer.natureserve.org/. Occupied habitat is defined as areas currently or historically known to support Cisco milkvetch; synonymous with "known habitat." The following avoidance and minimization measures should be included in the plan of development: 1. Pre-project habitat assessments will be completed across 100% of the project disturbance area within potential habitat prior to any ground disturbing activities to determine if suitable Cisco milkvetch habitat is present. 2. Species surveys will be conducted within suitable habitat to determine occupancy. Where standard surveys are technically infeasible and otherwise hazardous due to topography, slope, etc., suitable habitat will be assessed and mapped for avoidance (hereafter, "avoidance areas"); in such cases, 300 foot

Notice	Description/Purpose
	buffers will be maintained between surface disturbance and avoidance areas. Where conditions allow, surveys: a. Will be conducted by qualified individual(s) and according to BLM and Service accepted survey protocols (USFWS 2011); b. Will be conducted in suitable and occupied habitat for all areas proposed for surface disturbance prior to initiation of project activities and within the same growing season, at a time when the plant can be detected (usually April 15th to May 31st; however, surveyors should verify that the plant is flowering by contacting a BLM or Service botanist or demonstrating that the nearest known population is in flower); c. Will occur within 300 feet from the edge of the proposed right-of-way and/or project disturbance for surface pipelines, roads, well pads, and other facilities requiring removal of vegetation; d. Will include, but not be limited to, plant species lists and habitat characteristics, and; e. Will be valid until April 15th of the following year. f. Clearance surveys in occupied habitat will be combined with historic plant location data for that particular site to delineate the outer boundary of occupied habitat. The 300 foot avoidance buffer will then be applied to the outer boundary of occupied habitat for that site. This evaluation will occur in coordination with the BLM and Service to ensure that the appropriate buffer is applied to protect both active and dormant Cisco milkvetch plants in occupied habitat. g. Electronic copies of clearance survey reports (included appendices) and GIS shape files will be sent no later than December 31st to each of the following: • Utah Natural Heritage Program (with copies of NHP field survey forms); • Applicable/affected land owners and/or management agencies; and, • U.S. Fish and Wildlife Service Utah Field Office (mailing address: 2369 West Orton Circle, Suite 50, West Valley City, Utah 84119). 3. Design project infrastructure to minimize impacts within suitable habitat: a. Where standard surveys are technically infeasible, infrastructure and activities will avoid all suitable habitat (avoidance areas) and incorporate 300 foot buffers; b. Reduce well pad size to the minimum needed, without compromising safety; c. Where technically and economically feasible, use directional drilling or multiple wells from the same pad; d. Limit new access routes created by the project; e. Roads and utilities should share common right-of ways where possible; f. Reduce the width of right-of-ways and minimize the depth of excavation needed for the road bed; where feasible, use the natural ground surface for the road within habitat;

Notice	Description/Purpose
	g. Place signing to limit off-road travel in sensitive areas; h. Stay on designated routes and other cleared/approved areas; i. All disturbed areas will be revegetated with species native to the region, or seed mixtures approved by the action agency. 4. Where there is occupied habitat, project infrastructure will be designed to avoid direct disturbance and indirect impacts to populations and to individual plants: a. Follow the above recommendations (#3, above) for project design within suitable habitats; b. To avoid water flow and/or sedimentation into occupied habitat and avoidance areas, silt fences, hay bales, and similar structures or practices will be incorporated into the project design; appropriate placement of fill is encouraged; c. Construction of roads will occur such that the edge of the right of way is at least 300 feet from: (1) any plant; (2) the outer boundary of occupied habitat; and (3) avoidance areas; d. Existing roads will be graveled within 300 feet of occupied habitat; the operator is encouraged to apply water for dust abatement to such areas from April 15th to May 31st (flowering period); dust abatement applications will be comprised of water only; e. The edge of the well pad should be located at least 300 feet away from plants and avoidance areas, in general; f. Surface pipelines will be laid such that a 300 foot buffer exists between the edge of the right of way and plants and 300 feet between the edge of right of way and avoidance areas; use stabilizing and anchoring techniques when the pipeline crosses suitable habitat to ensure pipelines don't move towards the population; g. Construction activities will not occur within occupied habitat; h. Before and during construction, areas for avoidance should be visually identifiable in the field, e.g., flagging, temporary fencing, rebar, etc.; i. A qualified botanist will be on site during construction to monitor the surface disturbance activity and assist with implementation of applicable conservation measures (USFWS 2011); j. Place produced oil, water, or condensate tanks in centralized locations, away from occupied habitat; and, k. Minimize the disturbed area of producing well locations through interim and final reclamation. Reclaim well pads following drilling to the smallest area possible. 5. For projects that cannot implement the measures or avoidance buffers identified in #4, above, site specific conservation measures will be developed in coordination with the Service. Occupied Cisco milkvetch habitats within: (1) 300 ft of the edge of the surface pipeline right of ways; (2) 300 ft of the edge of the road right of ways; and (3) 300 ft from the edge of the well pads shall be monitored for a period of three years after ground disturbing activities.

Notice	Description/Purpose
	Monitoring will include annual plant surveys to determine plant and habitat impacts relative to project facilities. Annual reports shall be provided to the BLM and the Service. To ensure desired results are being achieved, minimization measures will be evaluated and may be changed after a thorough review of the monitoring results and annual reports during annual meetings between the BLM and the Service. 6. Coordination with the Service will be sought immediately if any loss of plants or occupied habitat for the Cisco milkvetch 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 coordination with the BLM and the Service. Literature Cited: U.S. Fish and Wildlife Service (USFWS). 2011. Utah Field Office Guidelines for Conducting and Reporting Botanical Inventories and Monitoring of Federally Listed, Proposed, and Candidate Plants. Utah Ecological Services Field Office, West Valley City, Utah. August 2011. Available at: http://www.fws.gov/utahfieldoffice/SurveyorInfo.html.
T&E-34	WELSH'S MILKWEED (<i>Asclepias welshii</i>) The lessee/operator is given notice that the lands located in this parcel may exist within potential habitat for Welsh's milkweed, a plant species listed as threatened under the Endangered Species Act (ESA) (51 FR 16526). To minimize effects to the Federally threatened Welsh's milkweed, the Bureau of Land Management (BLM), in coordination with the U.S. Fish and Wildlife Service (Service) has developed the following avoidance and minimization measures. Integration of and adherence to these measures will help ensure the activities carried out during oil and gas development (including but not limited to drilling, production, and maintenance) are in compliance with the ESA. Site-specific measures not listed here may also be employed to avoid or minimize effects to the species. These additional measures will be developed and implemented in consultation with the Service and BLM to ensure continued compliance with the ESA. Furthermore, re-initiation of Section 7 consultation with the Service will be sought immediately if any unanticipated effects to individuals or populations of the species result from project activities. For the purposes of this document, the following terms are so defined: Potential habitat is defined as areas that satisfy the broad criteria of the species habitat description or fall within the Service's potential habitat layer found in the Information for Planning and Consultation (IPaC) database. Suitable habitat is defined as areas that contain or exhibit the specific components or constituents necessary for plant persistence. Suitable habitat is determined by field assessment and may or may not contain Welsh's milkweed. Suitable habitat descriptions can be found in Federal Register Notice and species recovery plan links at https://ecos.fws.gov/. Occupied habitat is defined as areas currently or historically known to support Welsh's milkweed individuals, plus an avoidance buffer to avoid the existing seedbank and indirect effects from dust or to pollinators. Avoidance areas are areas of suitable habitat that have not been surveyed and are assumed to be occupied. The following avoidance and minimization measures should be included in the Plan of Development:

Notice	Description/Purpose
	1. Within potential habitat, pre-project habitat assessments will identify suitable habitat meeting the criteria described in the current Service-accepted protocol. Contact BLM or the Service for the most up-to-date Welsh's milkweed habitat requirements and timing windows. Habitat assessments will be completed across 100 percent of the project disturbance and buffer area within potential habitat prior to any ground disturbing activities to determine if suitable Welsh's milkweed habitat is present. 2. Within suitable habitat, clearance-level species surveys will be conducted to determine occupancy. Surveys: a. Must be conducted by qualified individuals(s) and according to BLM and Service accepted survey protocols; b. Will be conducted in all areas proposed for surface disturbance and buffer areas prior to initiation of project activities and within one year, at a time when the plant can be detected. Surveyors should verify that the plant is flowering by contacting a BLM or Service botanist or demonstrating that the nearest known population is in flower; c. Will occur within 300 feet (ft) from the edge of the proposed right-of-way (ROW) and/or project disturbance for surface pipelines, roads, well pads, and other facilities requiring removal of vegetation, OR within 50 ft from the edge of the ROW for hand laid surface pipelines where no mechanized travel will be used for maintenance, installation, or related activities; d. Where clearance surveys are technically infeasible and otherwise hazardous due to topography, slope, etc., suitable habitat will be assessed and mapped for avoidance (hereafter, avoidance areas) and incorporate 300-ft avoidance buffers. Avoidance areas are assumed to be occupied (see #4, below). 3. Within suitable but unoccupied habitat, the following conservation measures will minimize disturbance and indirect effects to populations and individual plants: a. Reduce well pad size to the minimum needed without compromising safety; b. Where technically and economically feasible, use directional drilling or multiple wells from the same pad; c. Limit new access routes created by the project; d. Roads and utilities should share common ROWs where possible; e. Reduce the width of ROWs and minimize the depth of excavation needed for the road bed; where feasible, use the natural ground surface for the road within habitat; f. Place signing to limit off-road travel in sensitive areas; g. Stay on designated routes and other cleared/approved areas; h. Vehicles and equipment will be power washed prior to entering suitable habitat or when moving between infested areas in order to prevent spreading seeds from noxious and invasive species; i. Only water (no chemicals, brine, or produced water) will be used for dust abatement measures; 4. All disturbed areas that are not on unconsolidated dune habitat will be re-vegetated with native species comprised of species indigenous to the area. Non-native species may be included in seed mix provided that the selected

Notice	Description/Purpose
	species are sterile, non-rhizomatous, and unlikely to invade other areas. BLM or Service botanists should approve seed mix. Revegetation on unconsolidated dune habitat is not necessary or desirable for this species. 5. Within occupied habitat and avoidance areas, the following conservation measures will be implemented to avoid direct disturbance and minimize indirect effects to populations and individual plants: a. Follow the above recommendations (#3) for project design within suitable habitats; b. Buffers of 300 ft minimum will be maintained between the edge of surface disturbance or ROW and plants, populations, occupied habitat, and avoidance areas where feasible. Surface pipelines will be laid by hand and such that a 50-ft buffer exists between the edge of the ROW and plants and avoidance areas. Stabilizing and anchoring techniques should be used when the pipeline crosses suitable habitat to ensure pipelines don't move towards the population. Site-specific distances will need to be approved by the Service and BLM when disturbance will occur upslope of habitat; Construction activities will not occur within occupied habitat; c. No ground disturbance will occur during the flowering period; d. Erosion control measures (e.g., silt fencing) will be implemented to minimize sedimentation or concentrating water flow toward Welsh's milkweed plants and populations located down slope of proposed surface disturbance activities. Such measures should only be installed within the area proposed for disturbance; e. Dust abatement measures will be applied to disturbed areas during the active growing period throughout the lifetime of the project any time activities occur that could result in increased dust (initial construction through reclamation); f. Before and during construction, areas for avoidance should be visually identifiable in the field (e.g., flagging temporary fencing, rebar, etc.); g. Place produced oil, water, or condensate tanks in centralized locations, away from occupied habitat. Any produced oil, water, or condensate will be processed and treated off-site; h. Minimize the disturbed area of producing well locations through interim and final reclamation. Reclaim well pads following drilling to the smallest area possible. i. Speed limit signs will be posted and project related vehicle travel on dirt roads will obey a 15-mile-per-hour speed limit in order to reduce dust during the growing period; j. A qualified botanist will be onsite during any ground disturbing activity to monitor surface disturbance activities and assist with implementation of applicable conservation measures. 6. Noxious weeds within Welsh's milkweed habitat on all federal lands may be controlled with herbicides, in accordance with the most recent BLM Herbicide PEIS Guidelines (http://www.blm.gov/wo/st/en/prog/more/veg_eis.html) or most recent BLM Field Office guidance. a. A Pesticide Use Permit (PUP) will be approved through the action agency prior to weed control activities in the Welsh's milkweed habitat.

Notice	Description/Purpose
	An approved PUP will include the most recent BLM guidelines for herbicide use near sensitive plant species; b. All those involved in the herbicide application shall be accompanied by a qualified botanist/ ecologist familiar with Welsh's milkweed to help herbicide applicators identify Welsh's milkweed and avoid effects on individual plants. 7. Additional monitoring or conservation measures to offset effects to Welsh's milkweed may be applied where disturbance occurs within 300 ft of individual plants. To ensure desired results are being achieved, minimization measures will be evaluated and may be changed after a thorough review of the monitoring results and annual reports during annual meetings between the BLM and Service.
T&E-35	SILVERSPOT BUTTERFLY (<i>Speyeria nokomis nokomis</i>) The lessee/operator is given notice that the lands located in this parcel may exist within potential habitat for silverspot butterfly, a species listed as threatened under the Endangered Species Act (ESA) (51 FR 16526). To minimize effects to the Federally threatened silverspot butterfly, the Bureau of Land Management (BLM), in coordination with the U.S. Fish and Wildlife Service (Service) has developed the following avoidance and minimization measures. Integration of and adherence to these measures will help ensure the activities carried out during oil and gas development (including but not limited to drilling, production, and maintenance) are in compliance with the ESA. Site-specific measures not listed here may also be employed to avoid or minimize effects to the species. These additional measures will be developed and implemented in consultation with the Service and BLM to ensure continued compliance with the ESA. Furthermore, re-initiation of Section 7 consultation with the Service will be sought immediately if any unanticipated effects to individuals or populations of the species result from project activities. For the purposes of this document, the following terms are so defined: Potential habitat is defined as areas that satisfy the broad criteria of the species habitat description or fall within the Service's potential habitat layer found in the Information for Planning and Consultation (IPaC) database. Suitable habitat is defined as areas that contain or exhibit the specific components or constituents necessary for species persistence. Suitable habitat is determined by field assessment and may or may not contain silverspot butterfly. As silverspot butterfly is obligate on the host plant bog violet (<i>Viola nephrophylla</i>), all occupied bog violet habitat within potential habitat for silverspot butterfly is considered suitable habitat for silverspot butterfly. More detailed suitable habitat descriptions can be found in Federal Register Notice and species recovery plan links at https://ecos.fws.gov/. Occupied habitat is defined as areas currently or historically known to support silverspot individuals, plus an avoidance buffer to avoid the bog violet existing seedbank and indirect effects from dust or to pollinators. Avoidance areas are areas of suitable habitat that have not been surveyed and are assumed to be occupied. The following avoidance and minimization measures should be included in the Plan of Development: 1. Within potential habitat, pre-project habitat assessments will identify suitable habitat meeting the criteria described in the current Service-accepted protocol. Contact BLM or the Service for the most up-to-date silverspot

Notice	Description/Purpose
	habitat requirements and timing windows. Habitat assessments will be completed across 100 percent of the project disturbance and buffer area within potential habitat prior to any ground disturbing activities to determine if suitable habitat, including bog violets, are present. If bog violets are not present, there is no need to conduct further surveys, even if all other criteria of suitable habitat are met. 2. Within suitable habitat, clearance-level species surveys will be conducted to determine occupancy. Surveys: a. Must be conducted by qualified individuals(s) and according to BLM and Service accepted survey protocols; b. Will be conducted in all areas proposed for surface disturbance and buffer areas prior to initiation of project activities and within two years, at a time when the plant can be detected. Surveyors should verify that butterflies are active by contacting a BLM or Service biologist or demonstrating that the nearest known population has active butterflies; c. Will occur within 300 feet (ft) from the edge of the proposed right-of-way (ROW) and/or project disturbance for surface pipelines, roads, well pads, and other facilities requiring removal of vegetation, OR within 50 ft from the edge of the ROW for hand laid surface pipelines where no mechanized travel will be used for maintenance, installation, or related activities; d. Where clearance surveys are technically infeasible and otherwise hazardous due to topography, slope, etc., suitable habitat will be assessed and mapped for avoidance (hereafter, avoidance areas) and incorporate 300-ft avoidance buffers. Avoidance areas are assumed to be occupied (see #4, below). 3. Within suitable but unoccupied habitat, the following conservation measures will minimize disturbance and indirect effects to populations, individuals, and host plants: a. Reduce well pad size to the minimum needed without compromising safety; b. Where technically and economically feasible, use directional drilling or multiple wells from the same pad; c. Limit new access routes created by the project; d. Roads and utilities should share common ROWs where possible; e. Reduce the width of ROWs and minimize the depth of excavation needed for the road bed; where feasible, use the natural ground surface for the road within habitat; f. Place signing to limit off-road travel in sensitive areas; g. Stay on designated routes and other cleared/approved areas; h. Vehicles and equipment will be power washed prior to entering suitable habitat or when moving between infested areas in order to prevent spreading seeds from noxious and invasive species; i. Only water (no chemicals, brine, or produced water) will be used for dust abatement measures; 4. All disturbed areas will be re-vegetated with native species comprised of species indigenous to the area and must include bog violet in the wetland portion of the disturbance area. BLM or Service botanists should approve seed mix.

Notice	Description/Purpose
	5. Within occupied habitat and avoidance areas, the following conservation measures will be implemented to avoid direct disturbance and minimize indirect effects to populations and individual plants: - Follow the above recommendations (#3) for project design within suitable habitats; - Buffers of 300 ft minimum will be maintained between the edge of surface disturbance or ROW and plants, populations, occupied habitat, and avoidance areas where feasible. Surface pipelines will be laid by hand and such that a 50-ft buffer exists between the edge of the ROW and plants and avoidance areas. Stabilizing and anchoring techniques should be used when the pipeline crosses suitable habitat to ensure pipelines don't move towards the population. Site-specific distances will need to be approved by the Service and BLM when disturbance will occur upslope of habitat; Construction activities will not occur within occupied habitat; - No ground disturbance will occur during the butterfly's active period; - Erosion control measures (e.g., silt fencing) will be implemented to minimize sedimentation or concentrating water flow toward bog violet plants and populations located down slope of proposed surface disturbance activities. Such measures should only be installed within the area proposed for disturbance; - Dust abatement measures will be applied to disturbed areas during the butterfly's active period throughout the lifetime of the project any time activities occur that could result in increased dust (initial construction through reclamation); - Before and during construction, areas for avoidance should be visually identifiable in the field (e.g., flagging temporary fencing, rebar, etc.); - Place produced oil, water, or condensate tanks in centralized locations, away from occupied habitat. Any produced oil, water, or condensate will be processed and treated off-site; - Minimize the disturbed area of producing well locations through interim and final reclamation. Reclaim well pads following drilling to the smallest area possible. - Speed limit signs will be posted and project related vehicle travel on dirt roads will obey a 15-mile-per-hour speed limit in order to reduce dust during the growing period; - A qualified biologist will be onsite during any ground disturbing activity to monitor surface disturbance activities and assist with implementation of applicable conservation measures. 6. Noxious weeds within suitable or occupied silverspot habitat on all federal lands may be controlled with herbicides, in accordance with the most recent BLM Herbicide PEIS Guidelines (http://www.blm.gov/wo/st/en/prog/more/veg_eis.html) or most recent BLM Field Office guidance. 7. A Pesticide Use Permit (PUP) will be approved through the action agency prior to any pesticide use in suitable or occupied silverspot habitat. An approved PUP will include the most recent BLM guidelines for pesticide use near sensitive species¹;

Notice	Description/Purpose
	8. All those involved in an herbicide application shall be accompanied by a qualified biologist familiar with bog violets and silverspot butterfly to help herbicide applicators identify both species and avoid effects on individual host plants. 9. Insecticides will not be used within suitable or occupied silverspot habitat without further coordination and potential consultation with the Service, due to the high level of direct risk posed to the listed species by insecticide use. 10. Additional monitoring or conservation measures to offset effects to silverspot butterfly and host plants may be applied where disturbance occurs within 300 ft of individual host plants. To ensure desired results are being achieved, minimization measures will be evaluated and may be changed after a thorough review of the monitoring results and annual reports during annual meetings between the BLM and Service. ¹ Bog violet is not a sensitive species but for the purposes of pesticide applications should be treated as such due to its status as host plant for a listed insect species and the fact that its presence in areas within the range of silverspot butterfly signifies suitable habitat.
T&E-36	NORTH AMERICAN WOLVERINE The lessee/operator is given notice that the lands in this parcel may exist within potential habitat for the North American wolverine, a species listed as threatened under the Endangered Species Act (ESA) (65 FR 16053). To minimize effects to North American wolverines, the Bureau of Land Management (BLM) in coordination with the U.S. Fish and Wildlife Service (Service) developed the following avoidance and minimization measures. Integration of and adherence to these measures will help ensure the activities carried out during oil and gas development (including but not limited to drilling, production, and maintenance) comply with the ESA. Site-specific measures not listed here may also be employed to avoid or minimize effects to the species. These additional measures will be developed and implemented in consultation with the Service and BLM to ensure continued compliance with the ESA. Furthermore, re-initiation of Section 7 consultation with the Service will be sought immediately if any unanticipated effects to individuals or populations of the species result from project activities. For the purposes of this document, the following terms are so defined: Potential habitat is areas that satisfy the broad criteria of the species habitat description, fall within the Service's potential habitat layer found in the Information for Planning and Consultation (IPaC) database or is identified by Service-accepted habitat models. Conservation measures for surface disturbing activities in potential habitat include the following: 1. Reduce well pad size to the minimum needed, without compromising safety. 2. Where technically and economically feasible, drill multiple wells from the same well pad (using directional or multi-lateral drilling techniques). 3. Where possible, locate drilling and ancillary facilities within existing rights of way. 4. Limit new access routes created by the project. 5. Roads and utilities should share common ROWs where possible.

Notice	Description/Purpose
	6. Where possible, site roads, pipelines, and other linear features such that they do not fragment existing patches of mature and advanced regeneration forest. 7. All disturbed areas will be re-vegetated with native species comprised of species native indigenous to the area. Non-native species may be included in a seed mix provided that the selected species are sterile, non-rhizomatous, and unlikely to invade other areas. BLM or Service botanists should approve seed mix; 8. Speed limit signs will be posted to reduce wildlife collision. 9. Remove dead animals 0.5-mi from roadway as soon as possible to reduce attractants of wolverines near roads. 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. Site-specific measures not listed here may also be employed to avoid or minimize effects to the species. These additional measures will be developed and implemented in consultation with the Service and BLM to ensure continued compliance with the ESA. Furthermore, re-initiation of Section 7 consultation with the Service will be sought immediately if any unanticipated effects to individuals or populations of the species result from project activities.

APPENDIX C. CHAPTER 1 SUPPORTING INFORMATION

C.1 BACKGROUND

Table 46: Acreage and County by Individual Lease

Lease	County	Total Acres
UTU91055	Sevier	947.12
UTU91058	Sevier	1922.745
UTU91060	Sevier	1172.53
UTU91068	Uintah	213.72
UTU91304	Carbon	2040.00
UTU91305	Carbon	2285.98
UTU91306	Carbon	2240.00
UTU91308	Carbon	1813.6
UTU91310	Grand	120.00
UTU91311	Grand	220.82
UTU91334	Emery	2276.22
UTU91340	Emery	80.00
UTU91342	Duchesne	160.00
UTU91343	Duchesne	70.00
UTU91932	Duchesne	320.00
UTU91933	Duchesne	1255.14
UTU91936	Duchesne	75.79
UTU91937	Duchesne	320.00
UTU91938	Uintah	40.04
UTU91945	Uintah	160.00
UTU91946	Uintah	80.00
UTU91948	Uintah	40.00
UTU91949	Uintah	320.00
UTU91950	Uintah	2257.65

Lease	County	Total Acres
UTU91952	Duchesne	40.00
UTU91953	Uintah	80.00
UTU92311	Sevier	200.00
UTU92312	Sevier	346.74
UTU92313	Sevier	200.00
UTU92314	Sevier	1482.76
UTU92315	Sevier	2032.52
UTU92316	Sevier	677.60
UTU92328	Sanpete	1239.20
UTU92330	Sanpete	1300.17
UTU92487	Juab	2169.83
UTU92670	Duchesne	640.00
UTU92674	Duchesne/Uintah	640.00
UTU92676	Uintah	320.00
UTU92677	Uintah	919.30
UTU92679	Uintah	859.60
UTU92680	Uintah	1,440.00
UTU92682	Uintah	1,794.16
UTU92683	Uintah	1,155.38
UTU92684	Uintah	1,419.51
UTU92685	Uintah	320.00
UTU92686	Uintah	640.00
UTU92695	Uintah	2,282.27
UTU92696	Uintah	360.00
UTU92697	Uintah	563.88
UTU92698	Uintah	317.92
UTU92700	Uintah	1,861.16

Lease	County	Total Acres
UTU92701	Uintah	320.00
UTU92702	Uintah	720.00
UTU92703	Uintah	360.00
UTU92704	Uintah	552.49
UTU92708	Uintah	2,395.97
UTU92709	Uintah	1,574.63
UTU92710	Uintah	1,920.00
UTU92711	Uintah	2,560.00
UTU92712	Uintah	2,370.88
UTU92713	Uintah	1,920.00
UTU92714	Uintah	1,520.00
UTU92765	Juab	1299.34
UTU92766	Juab	2316.94
UTU92807	Juab	2145.1
UTU93001	Grand	1920.00
UTU93002	Grand	1400.00
UTU93003	Grand	1920.00
UTU93004	Grand	480.00
UTU93005	Grand	715.76
UTU93008	San Juan	988.72
UTU93010	San Juan	300.00
UTU93012	San Juan	80.00
UTU93013	San Juan	40.00
UTU93014	San Juan	652.76
UTU93250	Wayne	1843.36
UTU93251	Wayne	1241.39
UTU93252	Sevier	623.00

Lease	County	Total Acres
UTU93260	Duchesne	853.78
UTU93261	Duchesne	359.20
UTU93433	Rich/Summit	400.00
UTU93602	Juab	800.15
UTU93603	Juab	1521.74
UTU93604	Juab	1709.412
UTU93605	Juab	1760.00
UTU93611	Emery	1269.16
UTU93612	Emery	1920.00
UTU93645	Uintah	40.00
UTU93646	Uintah	84.56
UTU93650	Uintah	680.00
UTU93651	Uintah	1600.00
UTU93655	Uintah	401.91
UTU93656	Uintah	1888.24
UTU93657	Uintah	2438.16
UTU93658	Uintah	2120.00
UTU93659	Uintah	2560.00
UTU93660	Uintah	233.16
UTU93661	Uintah	1246.92
UTU93662	Uintah	1985.34
UTU93663	Uintah	1592.5
UTU93664	Uintah	2552.56
UTU93665	Uintah	772.12
UTU93666	Uintah	2000.00
UTU93668	Uintah	480.00
UTU93669	Uintah	1119.91

Lease	County	Total Acres
UTU93670	Uintah	2000.08
UTU93671	Uintah	1760.00
UTU93672	Uintah	1600.00
UTU93673	Uintah	1760.00
UTU93675	Uintah	2298.77
UTU93676	Uintah	1196.51
UTU93679	Uintah	2352.92
UTU93681	Uintah	1914.48
UTU93684	Uintah	235.74
UTU93685	Uintah	72.07
UTU93686	Uintah	1196.89
UTU93687	Uintah	2150.32
UTU93688	Uintah	1400.00
UTU93692	Uintah	2560.00
UTU93694	Uintah	40.00
UTU93695	Uintah	319.44
UTU93696	Uintah	80.00
UTU93697	Uintah	80.00
UTU93702	Grand	560.00
UTU93705	Grand	1505.00
UTU93707	Grand	1920.00
UTU93708	Grand	1386.12
UTU93710	Grand	1920.00
UTU93711	Grand	1482.32
UTU93712	Grand	2223.82
UTU93714	Grand	1329.88
UTU93715	Grand	1981.63

Lease	County	Total Acres
UTU93718	Uintah	1280.00
UTU93723	San Juan	2239.52
UTU93724	San Juan	2240.00
UTU93725	Uintah	623.52
UTU93732	San Juan	1703.31
UTU93734	San Juan	1920.00
UTU93735	San Juan	228.08
UTU93881	Duchesne	1200.00
UTU93882	Duchesne	1120.00
UTU93884	Uintah	40.00
UTU93888	Uintah	640.00
UTU93899	Uintah	1600.00
UTU93900	Uintah	1680.00
UTU93901	Uintah	1465.16
UTU93902	Uintah	1440.00
UTU93903	Uintah	1891.8
UTU93904	Uintah	1923.48
UTU93905	Uintah	2537.44
UTU93906	Uintah	2560.00
UTU93907	Uintah	2547.00
UTU93910	Uintah	301.93
UTU93911	Uintah	1920.00
UTU93913	Uintah	2241.24
UTU93914	Uintah	280.00
UTU93915	Uintah	1440.00
UTU93916	Uintah	1293.32
UTU93917	Uintah	1766.53

Lease	County	Total Acres
UTU93918	Uintah	1500.45
UTU93919	Uintah	1600.00
UTU93920	Uintah	1279.95
UTU93921	Uintah	164.41
UTU93922	Uintah	1875.02
UTU93923	Uintah	1831.84
UTU93924	Uintah	2560.00
UTU93925	Uintah	2418.33
UTU93926	Uintah	1840.64
UTU93927	Uintah	2240.00
UTU93928	Uintah	2263.02
UTU93929	Uintah	2080.00
UTU93930	Uintah	1440.00
UTU93931	Uintah	1123.88
UTU93933	Uintah	1808.58
UTU93934	Uintah	1159.2
UTU93935	Uintah	779.41
UTU93936	Uintah	1920.00
UTU93937	Uintah	1360.00
UTU93938	Uintah	1670.67
UTU93939	Uintah	2152.83
UTU93946	Uintah	250.58
UTU93947	Uintah	1399.00
UTU93948	Uintah	158.25
UTU93959	Uintah	1440.00
UTU93962	Uintah	80.00
UTU93963	Uintah	80.00

Lease	County	Total Acres
UTU93965	Uintah	629.51
UTU93966	Uintah	279.72
UTU93968	Uintah	2200.00
UTU93979	Summit	720.00
UTU93980	Daggett	1802.19
UTU93981	Summit	917.81
UTU93982	Daggett	1147.29
UTU94003	Uintah	80.00
UTU94135	Duchesne	1920.00
		239,923.42

C.2 RELATED LITIGATION

Several lawsuits have challenged BLM leasing decisions associated with the leases considered in this EA, which are summarized below. All 195 leases considered in this EA have been challenged in one or more of the following lawsuits discussed below.

On November 29, 2021, the BLM began posting notices of complete APD packages (as defined by 43 C.F.R § 3171) received by the BLM and pending as of October 1, 2021, to the present on leases challenged in *WildEarth Guardians v. Haaland*, 16-cv-1724 (D.D.C.), *WildEarth Guardians v. Haaland*, 21-cv-0175 (D.D.C.), *WildEarth Guardians v. Haaland*, 20-cv-0056 (D.D.C.) on the BLM website (<https://www.blm.gov/programs/energy-and-minerals/oil-and-gas/operations-and-production/permitting/apds-under-litigation>).

***WildEarth Guardians v. Haaland* (D.D.C. No. 16-cv-01724)**

WildEarth Guardians and Physicians for Social Responsibility filed a complaint on August 25, 2016, challenging eleven oil and gas lease sales in Wyoming, Colorado, and Utah offered between February 2015 and August 2016.

On March 19, 2019, the U.S. District Court for the District of Columbia issued a decision in *WildEarth Guardians v. Haaland*, 368 F.Supp.3d 41 (Case No. 16-cv-1724) (*WildEarth Guardians v. Zinke*, 2019), finding that BLM had not taken a sufficiently hard look at drilling-related greenhouse gas (GHG) emissions associated with leased leases in Wyoming. The court did not vacate the leases, but enjoined BLM from approving any applications for permit to drill (APDs) for the leases until it had completed corrective NEPA analysis. The Colorado and Utah leasing decisions were not briefed on the merits at that time. On May 28, 2019, the court granted federal defendants' motion for voluntary remand of the NEPA compliance documentation for the

Utah and Colorado leasing decisions challenged in the same case. The court did not vacate the associated leases.

The BLM Wyoming State Office published Wyoming Supplemental EA for May 2015-August 2016 Lease Sales, DOI-BLM-WY-0000-2019-0007-EA, and signed the associated Decision Record and FONSI on May 7, 2019. In that decision, BLM affirmed the nine challenged Wyoming leasing decisions for 283 leases. On September 27, 2019, the plaintiffs filed an amended complaint challenging BLM-Wyoming's May 2019 decision. The BLM Colorado State Office published Supplemental EA for the February 2015-May 2016 Sold and Issued Leases, DOI-BLM-CO-0000-2019-0011-EA and signed the associated DR and FONSI on December 3, 2019. In that decision, BLM affirmed the February 2015, May 2015, November 2015, and May 2016 Colorado leasing decisions. The BLM Utah State Office published Supplemental EA for the May 2015 and February 2016 Offered Leases, DOI-BLM-UT-0000-2019-0004-EA and signed the associated DR and FONSI on September 16, 2020. In that decision, BLM affirmed the May 2015 and February 2016 Utah leasing decisions for 39 leases.

In November 2020, the court issued a memorandum opinion and order remanding the supplemental analysis for the Wyoming leases and enjoining further APD approval on those leases until additional analysis has been completed. On January 26, 2021, plaintiffs filed a second amended complaint that challenged the new BLM Utah and Colorado decisions. On July 30, 2021, the federal defendants moved for voluntary remand of the NEPA documentation pertaining to the Utah and Colorado leasing decisions. On March 3, 2022, the parties executed a settlement agreement, and the plaintiffs moved for voluntary dismissal on March 4, 2022. The court granted the motion on June 1, 2022.

WildEarth Guardians v. Haaland (D.D.C. No. 20-cv-00056)

On January 9, 2020, Plaintiffs, WildEarth Guardians et al. filed a petition challenging BLM's approval of several lease sales, in Colorado, Montana/Dakotas, New Mexico, Utah, and Wyoming offered between September 2016 and March 2019. On October 23, 2020, the court granted federal defendants' motion for voluntary remand without vacatur of all but three of the challenged decisions in this case. On July 30, 2021, federal defendants filed a motion for voluntary remand of the remaining three challenged decisions. The parties executed a settlement agreement on March 3, 2022, and the plaintiffs moved for voluntary dismissal on March 4, 2022; the motion was granted on June 1, 2022.

WildEarth Guardians v. Haaland (D.D.C. No. 21-cv-00175)

The WildEarth Guardians v. Haaland case 1:21-cv-0175-RC pertains to lease sales in Colorado, Montana/Dakotas, New Mexico, Utah, and Wyoming offered between December 2016 and December 2020. The parties executed a settlement agreement on March 3, 2022, and the plaintiffs moved for voluntary dismissal on March 4, 2022; the motion was granted on June 1, 2022.

Western Watersheds Project et al. v. Burgum (D. Idaho No. 18-cv-00187)

On April 30, 2018, the plaintiffs filed a petition challenging BLM's approval of several lease sales between February 2017 and March 2018 in Montana, Utah, and Wyoming. Plaintiffs later amended their complaint to challenge additional lease sales between June 2018 and September 2018 from Utah, Nevada, and Wyoming, and 2019 lease sales in Montana and Wyoming. Based upon the similarities between this case and another case (*Montana Wildlife Federation et al. v. Haaland*, D. Mont. No. 4:18-cv-00069) challenging many of the same lease sales and involving overlapping court timelines, all parties agreed to have this case split into three separate phases.

On February 27, 2020, the court issued a decision which vacated portions of IM 2018-034 that reduced public involvement in the lease sale process, reinstated portions of IM 2010-117, and set aside the Phase I lease sales (including Wyoming, Utah, and Nevada) based on their use of IM 2018-034.

On June 9, 2021, the court issued a decision regarding Phase II. In this decision, the court held that BLM did not consider a reasonable range of alternatives and failed to take a sufficiently hard look at impacts to Greater Sage-Grouse.

On December 3, 2021, the court stayed consideration of the Phase III lease sales pending the outcome of the Phase I appeal.

On January 17, 2025, the appellate court issued a decision regarding the Phase I appeal. The decision was combined with the appeal in the previously mentioned *Montana Wildlife Federation et al. v. Haaland* case. In the *Western Watersheds* case, the court affirmed the district court's decision that BLM violated NEPA and FLPMA by failing to sufficiently explain its reduced public participation periods for the Phase I lease sales. However, the appellate court overturned the district court's original ruling vacating the leases and instead remanded the Phase I lease sale decisions back to the BLM. As a result of the January 17, 2025 remand decision from the courts, BLM is providing further analyses regarding Greater Sage-Grouse within this EA for all leases subject to WWP, and is providing a 30-day public comment period. The leases that were vacated or are still under consideration in the *Montana Wildlife Federation* case are not part of this EA.

***Rocky Mountain Wild et al. v. Bernhardt* (D. Utah No. 19-cv-00929)**

Rocky Mountain Wild et al. challenged leases offered at Utah's December 2017 and June 2018 lease sales. On December 10, 2020, the court granted, in part, Rocky Mountain Wild's requested relief finding that BLM failed to consider reasonable alternatives. The court remanded the

decisions to BLM to conduct a reasonable alternatives analysis. The leases from these two sales are included in this EA.

Southern Utah Wilderness Alliance v. U.S. Dep’t of Interior (D. Utah No. 23-cv-00804)

The Southern Utah Wilderness Alliance (SUWA) challenged 145 leases included in BLM Utah’s December 2018, March 2019, and September 2019 lease sales in the Moab and Vernal FOs. SUWA alleges the following NEPA violations: (1) Failure to take a hard look at the indirect effects of greenhouse (GHG) emissions; (2) Failure to analyze a reasonable range of alternatives; and (3) Failure to analyze and disclose direct, indirect, and cumulative impacts to resources, such as water resources, lands with wilderness characteristics, and multiple species. While this lawsuit is still pending, BLM has included these leases in this EA.

C.3 OTHER DOCUMENTS

The 195 leases were considered in the following documents prior to being offered and issued following 11 lease sales between 2015 to 2019:

- May 2015 Oil and Gas Lease Sale EA, Richfield FO, DOI-BLM-UT-C020-2014-036-EA
- May 2015 Oil and Gas Lease Sale Vernal FO Lease Determination of NEPA Adequacy (DNA), Vernal FO, DOI-BLM-UT-9221-2015-001-DNA
- November 2015 Oil and Gas Lease Sale EA, Price FO, DOI-BLM-UT-G021-2015-0031-EA
- November 2015 Lease Sale EA, Vernal FO, DOI-BLM-UT-G010-2015-089-EA
- February 2016 Competitive Oil and Gas Lease Sale EA, Canyon Country District, DOI-BLM-UT-Y010-2015-0186-EA
- November 2016 Competitive Oil and Gas Lease Sale EA, Vernal FO, DOI-BLM-UT-G010-2016-033-EA
- June 2017 Oil and Gas Lease Sale EA, Richfield FO, DOI-BLM-UT-C020-2017-0001-EA
- September 2017 Oil and Gas Lease Sale EA, Fillmore FO, DOI-BLM-UT-W020-2017-0001-EA
- December 2017 Competitive Oil and Gas Lease Sale EA, Vernal FO, DOI-BLM-UT-G010-2017-0028-EA
- March 2018 Competitive Oil and Gas Lease Sale EA, Canyon Country District, DOI-BLM-UT-Y010-2017-0240-EA
- March 2018 Competitive Oil and Gas Lease Sale DNA, Canyon Country District, DOI-BLM-UT-Y010-2017-0285-DNA

- June 2018 Competitive Oil and Gas Lease Sale EA, Richfield FO, DOI-BLM-UT-C020-2018-0005-EA
- Evaluation of 8 Leases DNA, Vernal FO, DOI-BLM-UT-G010-2018-0046-DNA
- September 2018 Oil and Gas Lease Sale EA, Fillmore FO, DOI-BLM-UT-W020-2018-0009-EA
- September 2018 Competitive Oil and Gas Lease Sale Salt Lake FO Area Leases EA, Salt Lake FO, DOI-BLM-UT-W010-2018-0018-EA
- September 2018 Oil and Gas Lease Sale EA, Price and Richfield FOs, DOI-BLM-UT-0000-2018-0001-EA
- December 2018 Competitive Oil and Gas Lease Sale DNA, Moab FO, DOI-BLM-UT-Y010-2018-0232-DNA
- December 2018 Competitive Oil and Gas Lease Sale DNA, Monticello FO, DOI-BLM-UT-Y020-2018-0058-DNA
- December 2018 Competitive Oil and Gas Lease Sale EA, Vernal FO, DOI-BLM-UT-G010-2018-0044-EA
- March 2019 Competitive Oil and Gas Lease Sale EA, Vernal FO, DOI-BLM-UT-G010-2019-0006-EA
- Analysis of Greenhouse Gas Emissions Related to Oil and Gas Leasing in Utah EA, Utah State Office, DOI-BLM-UT-0000-2021-0001-EA

C.4 BLM LAND USE PLAN CONFORMANCE

The alternatives described in Chapter 2 are in conformance with the governing land use plans, as amended.

In each FEIS for each relevant RMP, the impacts analysis for oil and gas leasing and development incorporates the RFDSs for the planning area (i.e., the level of oil and gas development, including number of wells, projected for the life of the plan based on historic and projected trends), Biological Opinions (BOs), and other planning documents associated with them. Specifically, proposed actions align with the following BLM RMPs within the designated FO boundaries (43 CFR § 1610.5, BLM 1617.3).

The sale and issuance of the leases considered in this EA conforms to the approved RMPs (43 C.F.R. § 1610.5) and Records of Decision (RODs) for the applicable planning areas, as amended or updated, including:

Canyon Country District

Moab Field Office RMP, October 2008, as amended (BLM, 2008)

The RMP designated approximately 1.45 million acres of federal mineral estate open for continued oil and gas development and leasing (see RMP decisions Min-8, Min-11 to Min-16, and Min-19 on pages 74 through 76). Approximately 427,273 acres are open to oil and gas leasing, subject to standard terms, 806,994 acres will be subject to CSU/TL, 217,480 acres are subject to NSO, approximately 370,250 acres

are closed to oil and gas leasing. The RMP (with associated amendments) also describes specific stipulations that would be attached to new leases offered in certain areas. Leases offered at past lease sales were subject to stipulations prescribed by the RMP. Therefore, the alternatives conform to the fluid mineral leasing decisions in the RMP and subsequent amendments and are consistent with the RMP's goals and objectives for natural and cultural resources.

Monticello Field Office RMP, October 2008, as amended (BLM, 2008)

The RMP designated approximately 1.3 million acres of federal mineral estate open for continued oil and gas development and leasing (see RMP/FEIS Table 4.121 on page 4-431 and RMP page 16). The RMP (with associated amendments and plan maintenance) also describes specific stipulations that would be attached to new leases offered in certain areas. Leases offered at past lease sales were subject to stipulations and notices prescribed by the RMP. Therefore, the alternatives conform to the fluid mineral leasing decisions in the RMP and subsequent amendments and are consistent with the RMP's goals and objectives for natural and cultural resources.

Moab Master Leasing Plan and RMP amendment, December 2016, as maintained (BLM, 2016)

The RMP does not revise all management decisions in the Moab and Monticello RMPs, but it does amend certain decisions pertaining to oil/gas and potash leasing. The Moab MLP updates leasing decisions in portions of the existing RMPs for the Moab and Monticello FOs (see RMP decisions MIN-OG-1, MIN-OG-2, MIN-OG-4 to 8 on page 17 through 19). Approximately 230,765 acres are open to oil and gas leasing, subject to CSU/TL stipulations, 305,899 acres are subject to NSO stipulation, 145,284 acres are closed to leasing (See RMP Appendix A and Appendix B). Approximately 103,619 acres within the Potash Leasing Areas are open to oil and gas leasing subject to CSU/TL or NSO stipulations. The alternatives conform to the fluid mineral leasing decisions in the RMP and subsequent amendments and are consistent with the RMP's goals and objectives for natural and cultural resources.

Color Country District

Richfield Field Office RMP, October 2008, as amended (BLM, 2008)

The RMP designated approximately 1.7 million acres of federal mineral estate open for continued oil and gas development and leasing (see RMP decisions Min 1 to Min 11 on pages 135 through 136). Approximately 608,700 acres are open to oil and gas leasing, subject to standard terms, 715,800 acres will be subject to CSU/TL, 551,620 acres are subject to NSO, approximately 447,300 acres are closed to oil and gas leasing (RMP page 17). The RMP (with associated amendments) also describes specific stipulations that would be attached to new leases offered in certain areas. Leases offered at past lease sales were subject to stipulations and notices prescribed by the RMP. Therefore, the alternatives conform to the fluid mineral leasing decisions in the RMP and subsequent amendments and are consistent with the RMP's goals and objectives for natural and cultural resources.

Green River District

Price Field Office RMP, October 2008, as amended (BLM, 2008)

The RMP designated approximately 1.91 million acres of federal mineral estate open for continued oil and gas development and leasing. The RMP (with associated amendments) also describes specific stipulations that would be attached to new leases offered in certain areas. Leases offered at past lease sales were subject to stipulations and notices prescribed by the RMP. Therefore, the alternatives conform to the

fluid mineral leasing decisions in the RMP and subsequent amendments and are consistent with the RMP's goals and objectives for natural and cultural resources.

Vernal Field Office RMP, October 2008, as amended (BLM, 2008)

The RMP designated approximately 1.73 million acres of federal mineral estate open for continued oil and gas development and leasing (see RMP decisions Min 6 to Min 14 on pages 98 through 99). The RMP (with associated amendments) also describes specific stipulations that would be attached to new leases offered in certain areas. Leases offered at past lease sales were subject to stipulations and notices prescribed by the RMP (see RMP Appendices K, L, and R). Therefore, the alternatives conform to the fluid mineral leasing decisions in the RMP and subsequent amendments and are consistent with the RMP's goals and objectives for natural and cultural resources.

West Desert District

Fillmore Field Office House Range Resource Area RMP, as amended (BLM, 1987)

ROD and Rangeland Program Summary for the House Range Resource Area RMP. The ROD is augmented by the DR prepared for the House Range Resource Area RMP Oil and Gas Leasing Implementation Environmental Assessment (UT-050-89-025) and the 2009 DR prepared for the EA for Oil and Gas Leasing in the Fillmore FO (BLM, 2009). The RMP designated 73,685 acres of federal mineral estate open for continued oil and gas development and leasing. The RMP (with associated amendments and plan maintenance) also describes specific stipulations that would be attached to new leases offered in certain areas. Under the Proposed Action, leases to be offered would be leased subject to stipulations prescribed by the RMP.

Salt Lake Field Office Randolph Management Framework Plan (MFP), June 1980, as amended (BLM, 1980)

Randolph Management Framework Plan (MFP) (BLM, 1980), Minerals Program Decision M-1.2 categorizes all lands in Rich County (Minerals 1.2) that are available for leasing. The Isolated Track Planning Analysis (Iso-Track PA) (BLM, 1985) addressed only surface management and reserved mineral estate decisions to a later date. Mineral estate management prescriptions for oil and gas leasing were subsequently addressed in the DR prepared for the Bear River East Plan Amendment. The BLM's 1994 DR for the Bear River East Plan Amendment (BREPA) (EA UT-020-91-32) (BLM, 1994). This analysis reviewed oil and gas leasing activity and amended the leasing categories for mineral estate, including stipulations for leasing within Cache, Davis, Morgan, Rich, Summit, Wasatch, and Weber counties.

Isolated Track Planning Analysis (BLM, 1985)

Isolated Track Planning Analysis (BLM, 1985) addressed only surface management and reserved mineral estate decisions to a later date. Mineral estate management directions for oil and gas leasing were subsequently addressed in the DR prepared for the Bear River East Plan Amendment (EA UT-020-91-32, BLM 1994) and the ROD prepared for the greater sage-grouse planning effort (DOI-BLM-UT-9100-2013-0002-EIS, BLM 2015).

Utah Greater Sage-Grouse

Utah Greater Sage-Grouse Approved RMP Amendment (ARMPA), Approved March 2015 (BLM, 2015)

The ROD prepared for the 2015 ARMPA (BLM, 2015) implemented Greater sage-grouse management goals and objectives, including amending leasing categories for managing the mineral estate for all Utah RMPs. The alternatives are in conformance with the minerals decisions of the Utah Greater Sage-Grouse ROD/RMP (BLM, 2015) including Minerals Resources, Fluid Minerals Objective MR-01 which directs prioritization of leasing outside of Greater sage-grouse habitat. Leasing actions are specifically provided for in those planning decisions (Management Actions for Minerals Resources). Under the Proposed Action, leases to be offered would be leased subject to stipulations prescribed by the RMP (2015 RMP Appendix G).

The Proposed Action also complies with the Record of Decision and Utah Approved Resource Management Plan Amendments (ARMPA) for the Great Basin Region Including the Greater Sage-Grouse Sub-Region of Idaho and Southwestern Montana, Nevada and Northeastern California, Oregon, and Utah (BLM, USFS, 2015). More specifically, the Proposed Action complies with the following decision in the ARMPA:

- General Habitat Management Area (GHMA)—Open to fluid mineral leasing, subject to existing planning decisions, which include closed to fluid minerals leasing, no surface occupancy (NSO), controlled surface use (CSU), and timing limitation (TL) stipulations and open to leasing, subject to standard stipulations.
- Priority Habitat Management Area (PHMA)— Open to fluid mineral leasing, subject to no surface occupancy (NSO) stipulation without waiver or modification, and with limited exception. In SFA, NSO without waiver, modification, or exception.

C.5 RELATIONSHIP TO STATUTES, REGULATIONS, POLICIES, AND OTHER PLANS

Purchasers of oil and gas leases are required to comply with all applicable federal, state, and local laws and regulations, including obtaining all necessary permits prior to any lease development activities. A listing of relevant statutes, regulations, and policies is provided in Table 47. Other plans are discussed in Section 1.5.1.

Table 47 Relationship to Statutes, Regulations, and Policies

Relevant Statute, Regulation, or Policy	Relationship to the Proposed Action
Executive Order 14156 (January 20, 2025)	On January 20, 2025, President Trump declared a national energy emergency due to the “United States’ insufficient energy production, transportation, refining, and generation [which] constitutes an unusual and extraordinary threat to our Nation’s economy, national security, and foreign policy.” Executive Order 14156 – Declaring a National Energy Emergency. BLM Oil and Gas Leasing responds to this order.
Executive Order 14154 (Jan. 20, 2025)/Secretary’s	EO 14154 and the subsequent SO 3418, are intended “...to encourage energy exploration and production on Federal lands and waters, including on the Outer Continental Shelf, in order to meet the needs of our citizens and solidify the United States as a global energy leader long into the future;”

Relevant Statute, Regulation, or Policy	Relationship to the Proposed Action
Order 3418 (Feb. 3, 2025)	
Endangered Species Act of 1973, as amended (ESA)	The ESA requires all federal departments and agencies to consult with the U.S. Fish and Wildlife Service on all actions authorized, funded, or carried out by the agency to ensure that the action will not likely jeopardize the continued existence of any threatened and endangered species or adversely modify critical habitat. See the text of stipulation HQ-TES-1 in Appendix B.2 Description of Lease Stipulations and for details.
Federal Land Policy and Management Act of 1976, as amended (FLPMA)	FLPMA established guidelines to provide for the management, protection, development, and enhancement of public lands (Pub. L. No. 94-579). Section 103 of FLPMA defines public lands as any lands and interest in lands owned by the United States. For split-estate lands where the mineral estate is an interest owned by the United States, the BLM has limited authority over use of the surface by the surface owner; however, the BLM is required to disclose potential effects connected to the authorization to lease and develop federal mineral estate and to declare how federal mineral estate is managed in the RMP, including identification of all appropriate lease stipulations (43 CFR 3101.13, 43 CFR 1601.0-7(b) and H-1624-1).
Federal Onshore Oil and Gas Leasing Reform Act of 1987, as amended (FOOGLRA)	The FOOGLRA states that lease sales shall be held for each state where eligible lands are available at least quarterly and more frequently if the Secretary of the Interior determines such sales are necessary.
Mineral Leasing Act of 1920, as amended (MLA)	The MLA establishes that deposits of oil and gas owned by the United States are subject to disposition in the form and manner provided by the MLA under the rules and regulations prescribed by the Secretary of the Interior, where consistent with FLPMA, the National Environmental Policy Act of 1969, as amended (NEPA; Pub. L. No. 91-90, 42 United States Code [U.S.C.] Section 4321 et seq.), and other applicable laws, regulations, and policies.
National Historic Preservation Act of 1966, amended (NHPA)	Leasing is considered an undertaking pursuant to 54 U.S.C. Section 300101 et seq., commonly known as the NHPA, as amended, and 54 U.S.C. Section 306108, commonly known as Section 106 of the NHPA (Section 106). Section 106 requires all federal agencies to take into account the effects on historic properties from a federal undertaking. As a part of Section 106, federal agencies consult with the State Historic Preservation Office (SHPO) on all undertakings authorized, funded, or carried out by the agency. Agencies may follow a phased approach to Section 106 compliance. At the leasing level, BLM conducts an existing records review and consultation with SHPO, Native American Tribes, consulting parties, and public-driven identification of historic properties. Class

Relevant Statute, Regulation, or Policy	Relationship to the Proposed Action
	III cultural resource surveys are an important part of identification at the lease-development level. See the text of stipulation HQ-CR-1 in Appendix B.2 for details.
Clean Air Act of 1963, as amended (CAA)	The CAA [42 U.S.C. § 1857 et seq.], as amended and recodified [42 U.S.C. § 7401 et seq.] is the primary Federal legislation and provides the framework for protecting and enhancing the quality of the Nation’s air resources to promote the public health and welfare and the productive capacity of its population (Section 101(b)(1) of the Act). Provisions of the CAA that are relevant to the development of lease parcels are listed below: • National Ambient Air Quality Standards (NAAQS) • Attainment and Non-Attainment Area Designations • New Source Review Permitting • New Source Performance Standards (NSPS) • National Emission Standards for Hazardous Air Pollutants (NESHAP) • General Conformity Rule The CAA’s General Conformity Rule mandates that Federal agencies evaluate reasonably foreseeable emissions that result from its actions in a nonattainment area to determine if they conform with the applicable regulatory agency implementation plans (40 CFR 93.153). The rule considers air pollution emissions associated with Federal actions, and that “no department, agency or instrumentality of the Federal Government shall engage in, support in any way or provide financial assistance for, license or permit, or approve any activity which does not conform to an applicable implementation plan (40 CFR 93.150).” In short, general conformity refers to the process of evaluating plans, programs, and projects to determine and demonstrate they meet the requirements of the CAA and an applicable implementation plan, and do not prevent achievement of state or federal air quality standards.
Clean Water Act of 1972, as amended (CWA)	The CWA (33 U.S.C. § 1251 et seq.) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was significantly reorganized and expanded in 1972. The “Clean Water Act” became the Act’s common name with amendments in 1972 along with amendments in 1977. Considerations of the most recent definition of “Waters of the United States” along with interpretations, policy, and guidance as provided by the EPA and other jurisdictional federal agencies are followed as applicable.

Relevant Statute, Regulation, or Policy	Relationship to the Proposed Action
43 CFR Part 3100 and 43 CFR Subpart 3120	The regulations at 43 CFR Part 3100 govern onshore oil and gas leasing, development, and production of federal minerals. The regulations at 43 CFR Subpart 3120 govern competitive oil and gas lease sales. The BLM recently updated these oil and gas leasing regulations to implement provisions of the Inflation Reduction Act of 2022 (IRA) pertaining to royalty rates, rentals, and minimum bids; update the bonding requirements for leasing, development, and production; and revise some operating requirements.

C.6 OTHER PLANS

There are 14 non-federal resource management planning documents that have a relationship to the Proposed Action. Each of these is identified below. The Proposed Action directly aligns with these plans because it considers affirming oil and gas leases which supports energy production.

- State of Utah Resource Management Plan (State of Utah, 2023)
- Carbon County Resource Management Plan (Carbon County, 2017)
- Daggett County Resource Management Plan (Daggett County, 2022)
- Duchesne County General Plan (Duchesne County, 1997)
- Emery County General Plan (Emery County, 2016)
- Grand County Resource Management Plan (Grand County, 2017)
- Juab County Resource Management Plan (Juab County, 2023)
- Rich County Resource Management Plan (Rich County, 2022)
- Sanpete County Resource Management Plan (Sanpete County, 2017)
- San Juan County Resource Management Plan (San Juan County, 2022)
- Sevier County Resource Management Plan (Sevier County, 2022)
- Summit County Resource Management Plan (Summit County, 2017)
- Uintah County Resource Management Plan (Uintah County, 2017)
- Wayne County Resource Management Plan (Wayne County, 2017)

APPENDIX D. CHAPTER 2 SUPPORTING INFORMATION

D.1 ALTERNATIVE C ADDITIONAL DETAILS

Table 48 lists the resource conflicts for each of the 93 leases that would not be affirmed under Alternative C.

Table 48 Alternative C Resource Conflicts by Lease

Lease Number	Resource Conflict
UTU91937	GRSG
UTU91938	Uinta Basin <i>Sclerocactus</i>
UTU91948	Uinta Basin <i>Sclerocactus</i>
UTU91949	Graham's - White Penstemon
UTU91950	Graham's - White Penstemon
UTU91953	GRSG
UTU92487	GRSG
UTU92679	GRSG
UTU92680	GRSG
UTU92682	GRSG
UTU92683	GRSG
UTU92684	GRSG
UTU92686	GRSG
UTU92701	GRSG
UTU92702	GRSG
UTU92703	GRSG
UTU92704	GRSG
UTU92708	GRSG
UTU92709	GRSG
UTU92710	GRSG
UTU92711	GRSG
UTU92712	GRSG
UTU92713	GRSG
UTU92714	GRSG
UTU92807	GRSG
UTU92765	GRSG
UTU93250	GRSG
UTU93260	GRSG
UTU93261	GRSG
UTU93433	GRSG

Lease Number	Resource Conflict
UTU93670	Graham's - White Penstemon
UTU93671	Graham's - White Penstemon
UTU93672	Graham's - White Penstemon
UTU93673	Graham's - White Penstemon
UTU93684	Graham's - White Penstemon
UTU93686	Graham's - White Penstemon
UTU93687	Graham's - White Penstemon
UTU93688	Graham's - White Penstemon
UTU93881	GRSG
UTU93882	GRSG
UTU93884	GRSG
UTU93888	GRSG
UTU93899	GRSG
UTU93900	GRSG
UTU93901	GRSG
UTU93902	GRSG / Graham's - White Penstemon
UTU93903	GRSG / Graham's - White Penstemon
UTU93904	GRSG / Graham's - White Penstemon
UTU93905	GRSG / Graham's - White Penstemon
UTU93906	GRSG / Graham's - White Penstemon
UTU93907	GRSG / Graham's - White Penstemon
UTU93910	GRSG / Graham's - White Penstemon
UTU93911	GRSG
UTU93913	GRSG
UTU93914	GRSG
UTU93915	GRSG
UTU93916	GRSG
UTU93917	GRSG
UTU93918	GRSG
UTU93919	GRSG
UTU93920	GRSG
UTU93921	GRSG / Graham's - White Penstemon
UTU93922	GRSG
UTU93923	GRSG
UTU93924	GRSG
UTU93925	GRSG
UTU93926	GRSG

Lease Number	Resource Conflict
UTU93927	GRSG
UTU93928	GRSG
UTU93929	GRSG
UTU93930	GRSG
UTU93931	GRSG
UTU93933	GRSG
UTU93934	GRSG
UTU93935	GRSG / Graham's - White Penstemon
UTU93936	GRSG
UTU93937	GRSG / Graham's - White Penstemon
UTU93938	GRSG
UTU93939	GRSG / Graham's - White Penstemon
UTU93946	GRSG
UTU93947	GRSG
UTU93948	GRSG
UTU93959	GRSG
UTU93962	GRSG
UTU93963	GRSG
UTU93965	GRSG
UTU93966	GRSG
UTU93968	GRSG
UTU93979	GRSG
UTU93980	GRSG
UTU93981	GRSG
UTU93982	GRSG
UTU94135	GRSG / Uinta Basin <i>Sclerocactus</i> / Graham's - White Penstemon

D.2 ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED ANALYSIS

The BLM considered three action alternatives in addition to Alternatives A, B, and C but eliminated these alternatives from detailed analysis. These alternatives, along with rationale for their dismissal from detailed analysis, are discussed below.

NO NEW GREENHOUSE GAS EMISSIONS ALTERNATIVE

Under this alternative, the BLM would not affirm all leases so that no new greenhouse gas emissions would occur. This alternative was dismissed from detailed analysis because it is the same as Alternative A, which is already analyzed in detail.

LWC AVOIDANCE ALTERNATIVE

Under this alternative, the BLM would not affirm leases which are within the lands with wilderness characteristics (LWC) inventory units found to possess wilderness characteristics. The following leases occur either wholly or partially within LWC units: UTU91937, UTU91938, UTU92670, UTU93004, UTU93005, UTU93008, UTU93010, UTU93260, UTU93261, UTU93651, UTU93656, UTU93657, UTU93660, UTU93661, UTU93662, UTU93668, UTU93675, UTU93692, UTU93695, UTU93881, UTU93884, UTU93899, UTU93904, UTU93910, UTU93920, UTU93921, UTU93922, and UTU94135. LWC inventory findings are only a resource determination and are not a special land use allocation or designation. The identified leases are in LWC units that the BLM is not managing for the protection of their wilderness characteristics in the applicable RMP. These leases already have NSO stipulations for fragile soils/slopes greater than 40%, CSU stipulations for fragile soils/slopes between 21-40%, and numerous additional stipulations and notices for visual resources, suitable wild and scenic rivers, riparian areas, sensitive or endangered plants, and/or wildlife. The BLM dismissed this alternative from detailed analysis because the BLM is not managing these LWC units to prioritize protection of their wilderness characteristics, while topography and applicable lease stipulations/notices will adequately minimize potential impacts to LWC units, as discussed in Appendix E, AIB-3.

APPENDIX E. CHAPTER 3 SUPPORTING INFORMATION

E.1 ADDITIONAL INFORMATION FOR ESTIMATING NUMBER OF OIL AND GAS WELLS, SURFACE DISTURBANCE, AND PRODUCTION VOLUMES

Table 49 includes the estimates of future development for the individual leases in the Vernal FO. These estimations of foreseeable development are intended for analysis purposes only and imply no guarantee of subsequent development of the leases. Actual development could be higher or lower than estimated for this analysis. Because the oil and gas potential of the leases in the Vernal FO is so diverse, each lease was looked at individually and a judgement was made on how each lease might be developed (vertically, directionally, or horizontally) based on the performance of wells that have been drilled in the area.

Table 49 Individual Lease Future Development Information for Vernal FO

Lease	Acres in Lease	Total Number of Potential Wells to Develop the Lease†	(V)ertical (D)irectional (H)orizontal	Surface Disturbance Acreage
UTU91068	213.72	1	D	1.8
UTU91343	70.00	0	-None	0.0
UTU91342	160.00	0	H	0.5
UTU91932	320.00	3	V	14.0
UTU91933	1255.14	11	D	16.5
UTU91936	75.79	1	D	1.0
UTU91937	320.00	3	D	14.0
UTU91938	40.04	0	V	1.8
UTU91946	80.00	1	D	1.1
UTU91949	320.00	1	H	1.1
UTU91950	2257.65	20	D	29.6
UTU91952	40.00	0	V	1.8
UTU91953	80.00	1	V	3.5
UTU91948	40.00	0	V	1.8
UTU92670	640.00	1	H	2.1
UTU92674	640.00	6	V	28.0
UTU92676	320.00	3	V	14.0
UTU92677	919.30	8	D	12.1
UTU92679	859.60	8	D	11.3
UTU92680	1440.00	13	D	18.9
UTU92682	1794.16	16	V	78.5
UTU92683	1155.38	10	V	50.5
UTU92684	1419.51	12	V	62.1
UTU92685	320.00	1	H	1.1
UTU92686	640.00	6	V	28.0

Lease	Acres in Lease	Total Number of Potential Wells to Develop the Lease†	(V)ertical (D)irectional (H)orizontal	Surface Disturbance Acreage
UTU92695	2282.27	5	H	7.5
UTU92696	360.00	3	D	4.7
UTU92697	563.88	5	D	7.4
UTU92698	317.92	3	D	4.2
UTU92700	1861.16	16	D	24.4
UTU92701	320.00	3	V	14.0
UTU92702	720.00	6	V	31.5
UTU92703	360.00	3	V	15.8
UTU92704	552.49	5	V	24.2
UTU92708	2395.97	21	V	104.8
UTU92709	1574.63	14	V	68.9
UTU92710	1920.00	17	V	84.0
UTU92711	2560.00	22	V	112.0
UTU92712	2370.88	21	V	103.7
UTU92713	1920.00	17	V	84.0
UTU92714	1520.00	13	V	66.5
UTU93260	853.78	7	D	11.2
UTU93261	359.20	1	H	1.2
UTU93645	40.00	0	D	0.5
UTU93646	84.56	0	H	0.3
UTU93650	680.00	6	D	8.9
UTU93651	1600.00	14	V	70.0
UTU93655	401.91	4	V	17.6
UTU93656	1888.24	17	D	24.8
UTU93657	2438.16	21	D	32.0
UTU93658	2120.00	19	D	27.8
UTU93659	2560.00	22	V	112.0
UTU93660	233.16	2	D	3.1
UTU93661	1246.92	11	V	54.6
UTU93662	1985.34	17	V	86.9
UTU93663	1592.50	14	V	69.7
UTU93664	2552.56	22	V	111.7
UTU93665	772.12	7	V	33.8
UTU93666	2000.00	18	V	87.5
UTU93668	480.00	4	V	21.0
UTU93669	1119.91	10	V	49.0
UTU93670	2000.08	18	V	87.5

Lease	Acres in Lease	Total Number of Potential Wells to Develop the Lease†	(V)ertical (D)irectional (H)orizontal	Surface Disturbance Acreage
UTU93671	1760.00	15	V	77.0
UTU93672	1600.00	14	V	70.0
UTU93673	1760.00	15	V	77.0
UTU93675	2298.77	20	V	100.6
UTU93676	1196.51	5	V	26.2
UTU93679	2352.92	10	V	51.5
UTU93681	1914.48	8	V	41.9
UTU93684	235.74	1	H	0.8
UTU93685	72.07	0	H	0.2
UTU93686	1196.89	10	V	52.4
UTU93687	2150.32	19	V	94.1
UTU93688	1400.00	12	D	18.4
UTU93692	2560.00	22	V	112.0
UTU93694	40.00	0	V	1.8
UTU93695	319.44	3	V	14.0
UTU93696	80.00	1	V	3.5
UTU93697	80.00	0	V	1.8
UTU93718	1280.00	11	D	16.8
UTU93725	623.52	5	V	27.3
UTU94003	80.00	0	None	0.0
UTU93881	1200.00	11	D	15.8
UTU93882	1120.00	10	D	14.7
UTU94135	1920.00	17	D	25.2
UTU93884	40.00	0	D	0.5
UTU93888	640.00	6	D	8.4
UTU93899	1600.00	14	D	21.0
UTU93900	1680.00	15	D	22.1
UTU93901	1465.16	13	D	19.2
UTU93902	1440.00	13	D	18.9
UTU93903	1891.80	17	D	24.8
UTU93904	1923.48	17	V	84.2
UTU93905	2537.44	22	V	111.0
UTU93906	2560.00	22	V	112.0
UTU93907	2547.00	22	V	111.4
UTU93910	301.93	3	V	13.2
UTU93911	1920.00	17	V	84.0
UTU93913	2241.24	20	V	98.1

Lease	Acres in Lease	Total Number of Potential Wells to Develop the Lease†	(V)ertical (D)irectional (H)orizontal	Surface Disturbance Acreage
UTU93914	280.00	2	V	12.3
UTU93915	1440.00	13	V	63.0
UTU93916	1293.32	11	D	17.0
UTU93917	1766.53	15	V	77.3
UTU93918	1500.45	13	V	63.9
UTU93919	1600.00	14	V	70.0
UTU93920	1279.95	11	V	56.0
UTU93921	164.41	1	V	7.2
UTU93922	1875.02	16	V	82.0
UTU93923	1831.84	16	V	80.1
UTU93924	2560.00	22	V	112.0
UTU93925	2418.33	21	V	105.8
UTU93926	1840.64	16	V	80.5
UTU93927	2240.00	19	V	96.3
UTU93928	2263.02	20	V	99.0
UTU93929	2080.00	18	V	91.0
UTU93930	1440.00	13	V	63.0
UTU93931	1123.88	10	V	49.2
UTU93933	1808.58	16	V	79.1
UTU93934	1159.20	10	V	50.7
UTU93935	779.41	7	D	10.2
UTU93936	1920.00	17	V	84.0
UTU93937	1360.00	12	V	59.5
UTU93938	1670.67	15	V	73.1
UTU93939	2152.83	19	V	94.2
UTU93946	250.58	2	V	11.0
UTU93947	1399.00	12	V	61.2
UTU93948	158.25	1	V	6.9
UTU93959	1440.00	13	V	63.0
UTU93962	80.00	1	V	3.5
UTU93963	80.00	1	V	3.5
UTU93965	629.51	6	V	27.5
UTU93966	279.72	2	V	12.2
UTU93968	2200.00	19	V	96.3
UTU93980	1802.19	16	V	78.8
UTU93982	1147.29	10	V	50.2
UTU91945	160.00	1	V	7.0

† In cases where the methods used for estimating the number of wells per lease resulted in a fractional value of number of wells per lease, the fractional value was rounded to the nearest whole number to represent a rational outcome of the number of potential wells that could be drilled and developed on the lease, as well as to provide meaningful inputs to the oil, gas, and produced water production projections. The fractional number was used in calculating the total surface disturbance acreage.

Table 50 lists resources or concerns that were considered but determined to not warrant further analysis in this EA.

Table 50 Resources Not Analyzed in this EA

RESOURCE OR CONCERN	RATIONALE FOR NOT ANALYZING IN EA
Prime and Unique Farmlands	Prime farmlands and farmlands of statewide importance, as defined by 7 CFR 657.5, can be found within the project analysis area. There were no unique farmlands identified. The act of leasing by itself will not have an impact on prime/unique farmlands. According to the Natural Resource Conservation Service (NRCS), there are 21 leases considered farmlands of statewide importance, and 33 leases considered prime farmland if irrigated. However, these soils are not irrigated. The farmlands of statewide importance are for the production of food feed, fiber, forage, or oilseed crops, as determined by the appropriate State or unit of local government agency or agencies. There has been no determination if these lands serve those purposes nor does the BLM intend to irrigate and farm these areas, therefore, the impacts do not warrant detailed analysis. Any site specific analysis would occur at the APD stage to address site specific effects to prime and unique farmlands.
Wild Horses and Burros	The leases do not intersect with any designated herd management areas (HMAs) for wild horses or burros. The nearest HA or HMA is the Range Creek HMA, which is approximately 6 miles southeast of lease 94135. Therefore, analysis of potential effects to wild horses and burros is not warranted.
Lands, Access, and Realty	Potential development of the leases would be subject to existing land rights and interests (e.g., easements and water rights). Any potential land use conflicts would be resolved through other processes, such as administrative or legal proceedings, independent from this NEPA review.
Fuels and Fire Management	The potential for ignition of wildland fire from activities associated with potential development of the leases would be minimized to the extent practicable through adherence to all applicable federal, state, and local fire safety requirements. No specific concerns or conflicts were identified through internal scoping relating to the effects of potential development following leasing on fuels and fire management.
Travel and Transportation Management	Roads constructed as part of well completion would not be open to public use and would not be added to the public access network; therefore, no change to the applicable travel management plans would be required. Use of the existing travel and transportation network within the BLM leases would not be substantially changed by the Proposed Action.
National Conservation Areas (NCA)	The John Wesley Powell NCA is 16 miles northeast of the nearest lease and topographically screened by mountains. Potential indirect impacts from oil and gas lease development would not occur due to topography and distance.

RESOURCE OR CONCERN	RATIONALE FOR NOT ANALYZING IN EA
National Monuments (NM)	Dinosaur NM is 7.5 miles northeast of the nearest lease. Jurassic NM is 12.5 miles and topographically screened from the nearest lease. Bears Ears NM is over 2.5 miles west and topographically screened by canyons from the nearest lease. Hovenweep NM is over 10 miles southeast of the nearest lease. Grand Staircase Escalante NM is 35 miles south of the nearest lease. Potential indirect impacts from oil and gas lease development would not occur due to a combination of distance and topographic screening.
Wilderness	The Desolation Canyon Wilderness is 7.5 miles northwest of the nearest lease. The Sids Mountain Wilderness is 7.5 miles southeast of the nearest lease. Big Wild Horse Mesa Wilderness is 4 miles west of the nearest lease. The Labyrinth Canyon Wilderness is 2 miles west of the nearest lease. Potential indirect impacts from oil and gas lease development would not occur due to a combination of distance and topographic screening.
Wilderness Study Areas (WSA)	The Desolation Canyon WSA is over 6 miles west and topographically screened by canyons from the nearest lease. The Winter Ridge WSA is over 1 mile west and screened by topography from the nearest lease. The Floy Canyon WSA is 4.5 miles northeast of the nearest lease. The Behind the Rocks WSA is 2 miles north of the nearest lease. The Dirty Devil WSA is 8 miles south of the nearest lease. The Sego Lily WSA is 9 miles east of the nearest lease. Potential indirect impacts from oil and gas lease development would not occur due to a combination of distance and topographic screening.

E.2 ISSUES ANALYZED IN BRIEF (AIB)

Following internal scoping, 28 issues were identified, considered, and eliminated from detailed analysis by members of the IDT in review of the Proposed Action. Each of these issues is outlined below with a concise discussion regarding the degree of the impact in the context of the affected area for each issue. Stipulations HQ-TES-1 (compliance with the ESA), HQ-CR-1 (compliance with the NHPA), and Lease Notice HQ-MLA-1 (compliance with the MLA), as well as standard terms and conditions as described in the lease form, apply to all leases.

For the purposes of this analysis, short-term effects are those that cease after well construction and completion (30–60 days) or cease after interim reclamation (2–5 years). Long-term effects are considered to be those associated with operation and production activities over the life of the well (for example, noise) or that otherwise extend beyond the short-term time period (for example, surface disturbance subject to final reclamation). As such, some long-term effects would cease immediately upon the end of operations, whereas other long-term effects would remain until successful landscape reclamation and remediation is accomplished. Note that the time frame for successful reclamation would vary by vegetation type and other factors such as the amount and timing of annual precipitation (see AIB-18 for more information). No long-term effects are expected to persist after successful final reclamation.

AIB-1 Areas of Critical Environmental Concern

How would potential development of the leases affect Areas of Critical Environmental Concern (ACECs)?

Lower Green River ACEC

Leases UTU91068 and UTU92677 overlay portions of the Lower Green River ACEC. The following stipulations apply to these leases: UT-S-22: NSO/CSU/TL– Lower Green River ACEC; UT-S-96: NSO – Fragile Soils/Slopes Greater Than 40%; UT-S-100: CSU – Fragile Soils/Slopes (21%- 40%); UT-S-117: NSO – River Corridors: Lower Green River; UT-S-119: NSO – Lower Green River Corridor; UT-S-123: NSO – Riparian, Flood Plains, and Public Water Reserves. No surface occupancy is permitted within line of sight or up to one-half mile from the centerline of the river, whichever is less. Slopes within these leases are mostly below 10% so the NSO requirements generally would extend the full ½ mile from river centerline. A small portion of lease UTU92677, less than 40 acres, occurs beyond ½ mile from river centerline within the ACEC; a large majority of the lease acreage exists outside the ACEC boundary.

Due to the attached NSO stipulations, potential impacts to the Lower Green River ACEC are expected to be minimal or non-existent due to avoidance.

Nine Mile Canyon ACEC

Leases UTU93260 and UTU94135 lie partially within the boundary of the Nine Mile Canyon ACEC. UTU93260 encompasses 123.6 acres and UTU94135 encompasses 1198.8 acres within the ACEC boundary. The Nine Mile Canyon ACEC was created for the protection of cultural resources, regionally significant populations of special status plant species, and high quality scenery. Lease stipulation UT-S-23: NSO/CSU/TL – Nine Mile Canyon ACEC has been

applied to both leases. This stipulation requires no surface occupancy for oil and gas within approximately 17,162 acres of the Nine Mile Canyon ACEC. It does, however, allow 209 acres to be open to leasing subject to moderate constraints, such as timing limitations and controlled surface use.

Due to the attached NSO stipulation, potential impact to the Nine Mile Canyon ACEC is expected to be minimal.

Pariette Wetlands ACEC

Lease UTU92677 lies partially within the boundaries of the Pariette Wetlands ACEC which is the largest BLM wetland in Utah. Pariette Wetland provides 2,696 acres of wetland and riparian habitat and supports diverse wildlife. Lease stipulation UT-S-11: NSO – Pariette Wetlands ACEC has been applied to this lease. This stipulation requires no surface occupancy within the ACEC. In addition, this lease is in the Upper Colorado River Basin and notices such as T&E-03 which requires formal consultation on any water depletions in the Upper Colorado River Basin will minimize the potential impacts from water use in this ACEC.

Due to the attached NSO stipulation and other notices for threatened and endangered species and riparian and wetland habitat, impacts to the Pariette Wetlands ACEC are not expected.

Alkali Ridge ACEC

Leases UTU93723 and UTU93732 lie partially within the boundary of the Alkali Ridge ACEC. The Alkali Ridge ACEC is designated for the cultural resource relevance and importance values within its boundaries, which include the Alkali Ridge National Historic Landmark (NHL). Neither UTU93723 nor UTU93732 overlap the Alkali Ridge NHL.

Lease stipulation UT-S-17: CSU – Alkali Ridge ACEC has been applied to the leases along with the Cultural Resource Stipulation, as required by BLM Handbook H-3120-1. Stipulation UT-S-17 requires that cultural properties eligible for or listed on the National Register of Historic Places (National Register) shall be surrounded by an avoidance area sufficient to avoid direct and indirect impacts. This includes siting oil and gas facilities farther than allowed under the standard lease terms and conditions in order to avoid such impacts. The HQ-CR-1: Cultural Resources Protection stipulation gives the BLM the authority to require the modification of, or even disapprove, lease development plans if cultural resources conflicts cannot be resolved, specifically conflicts with historic properties and other resources protected under the NHPA. This regulatory protection enables the BLM to avoid, minimize, or mitigate appreciable impacts to cultural resources within the leases.

Due to the attached stipulations, potential impact to the Alkali Ridge ACEC is expected to be minimal.

AIB-2 Aquatic Habitats and Species

How would potential development of the leases affect aquatic habitats (springs, streams, riparian areas, wetlands, floodplains) and species?

The BLM reviewed the leases for proximity to riparian areas, wetlands, and floodplains. Through resource knowledge and/or GIS analysis of the National Wetlands Inventory (NWI) and National Hydrography Dataset (NHD) layers, the BLM identified leases with perennial or intermittent water, springs, riparian, or wetland habitat. Based on this GIS analysis, these resources occurred in all but four leases (UTU91310, UTU93611, UTU93697, and UTU94003). There are multiple aquatic and riparian dependent species that rely on the streams and riparian areas within the area of the leases. Sensitive and threatened and endangered species are addressed separately in AIB-21 and AIB-22.

Impacts to these aquatic habitats could occur through surface disturbing activities and water use. The potential development of leases would result in water usage of 1,980,133 bbl for leases in Vernal FO and 30,338 bbl for the leases in the other FOs (See Section 3.2.1). At this stage, the source of water, amount of water that will be recycled, and impacts of this use on sensitive species are not known and will be addressed by site specific NEPA at the APD stage. All leases in the Colorado River Basin have a stipulation or notice stating that any new water depletions from any portion of the Upper Colorado River drainage above Lake Powell are considered to adversely affect the habitat of the endangered fish and will require consultation with FWS. Water needs for all lease developments are authorized by Utah Division of Water Rights and will require a valid and existing water right for that purpose. Water Resources are discussed further in AIB-25 Water Resources.

The BLM conducted a review for riparian and wetland resources for all 195 leases at the time of the original NEPA analysis for the individual lease sales prior to the lease issuance and again for this EA. The analysis identified and attached any applicable lease stipulations and/or notices for the protection of riparian and wetland resources. Stipulations and notices for each lease are found in Appendix B. Lease stipulations and notices typically provide protection to these resources by providing no surface occupancy within the habitat and in a buffer area from the habitat. Lease Notices UT-LN-53 is applied to all leases with intermittent or perennial streams which have the potential to support riparian habitat. This notifies the lessee that riparian areas may be present, and no surface disturbing activities are allowed within 100 meters of the riparian area. Lease Notice UT-LN-128 is also applied to these leases notifying the lessee that to avoid impacts to floodplains, facilities should be located outside the 100-year floodplain. FO specific stipulations also provide NSO within the habitat and with a buffer. The distance of the buffer and specific conditions varies by FO with all having a minimum of 330 feet or 100 meters (Table 51).

Table 51: Summary of Field Office Riparian Stipulations.

Field Office		Riparian Notices	Title	Buffer Distance
Vernal		UT-S-123	NSO - Riparian, floodplain, public water reserves	active floodplains, wetland, water reserves, 100 m of riparian
Price		UT-S-127	NSO - intermittent and perennial streams	100 yr floodplain or 100 m from centerline
Moab		UT-S-122	NSO - Floodplains, riparian areas, springs and public water resources	100 yr floodplain or 100 m of riparian
		UT-S-183	NSO - critical habitat CO fish	100-year floodplain

Moab - MLP		UT-S-386	NSO - water resources	100-year floodplain and 500 ft intermittent, perennial, riparian, wetland, etc.
		UT-S-387	NSO - ephemeral	100 feet of ephemeral
Monticello		UT-S-128	NSO - Floodplains, riparian areas, springs and public water resources	floodplains, water reserves, or 100 m of riparian
		UT-S-182	NSO - CO fish critical habitat	NSO 100 yr floodplain
Salt Lake		UT-S-129	NSO - streams, ponds, water	400 feet of any streams
		UT-S-132	NSO - live water	600 feet
Fillmore		UT-S-131	CSU - no occupancy or surface disturbance	500 feet perennial water / springs
		UT-S-138	NSO - Sevier River and DMAD	100 feet river or 1000 feet reservoir high water line
Richfield		UT-S-111	NSO - Wetland Hydric/Soils	NSO on soils
		UT-S-121	NSO - Riparian and Wetland Areas	330 ft
		UT-S-184	CSU - CO basin endangered fish	NSO - 100 yr floodplain

Aquatic habitat restoration projects are in progress or planned throughout the White River Corridor, the Willow Creek, and Bitter Creek Watersheds. UT-LN-50 has been added to the leases that overlap these project areas to notify the lessee that these projects are occurring and may require modification to the Surface Use Plan of Operations to mitigate any conflicts.

With the stipulations and notices preventing surface disturbance and development within riparian areas, wetlands, floodplains, intermittent and perennial stream and a buffer from those habitats, there would be minimal impact to riparian and associated habitats and therefore the species that depend on these habitats. No further detailed analysis is necessary at this stage; however, the BLM may apply additional mitigation measures and buffers at the APD stage, as necessary to protect these areas. The BLM would conduct additional site-specific NEPA analysis at that time. Any lease specific issues will be addressed at the APD stage to further prevent impacts to these habitats.

AIB-3 BLM Natural Areas and Lands with Wilderness Characteristics

How would potential development of the leases affect BLM Natural Areas or lands with wilderness characteristics?

BLM Manual 6310 defines lands with wilderness characteristics (LWCs) as areas that have been inventoried and determined to possess 5,000 acres or more of public lands with apparent naturalness that provide outstanding opportunities for solitude and/or primitive, unconfined recreation. LWCs may also possess supplemental values of ecological, geological, or other features of scientific, educational, scenic, or historical value. An LWC determination is not a land use allocation per se and does not convey any special protective status unless an RMP decision has specifically established that a particular LWC unit will be managed to protect and preserve its wilderness characteristics. BLM Natural Areas are a planning designation for LWC units that have been through the RMP process where BLM has made an affirmative decision to prioritize protection of wilderness characteristics with management prescriptions that may vary based on environmental factors and multiple use considerations.

BLM Natural Areas

Leases UTU93656, UTU93657, UTU93658, and UTU93659 overlay the BLM White River Natural Area from the Vernal 2008 RMP. Lease stipulation UT-S-87: NSO – White River BLM Natural Area applies to all four leases. Therefore, potential direct impacts from lease development will not occur within the natural area. If lease activities were to occur just outside the natural area boundary, potential indirect impacts to wilderness characteristics such as noise or visual intrusions disturbing outstanding opportunities for solitude and/or primitive recreation are expected to be localized and temporary during the exploration phase of lease development.

Lands with Wilderness Characteristics (LWC)

The issuance of leases allows for mineral exploration and development activities to occur. Such mineral development in leased areas intersecting LWCs could cause indirect or direct impacts to wilderness characteristics, such as size, naturalness, solitude, and recreational opportunities in LWC areas. The presence of new oil and gas infrastructure on relatively undisturbed public lands would change the character of such areas. Depending on topography, vegetation removal, grading, and the development of well pads could reduce the apparent naturalness and scenic qualities in LWC areas and reduce the quality of solitude or primitive recreational experiences. Additionally, mineral exploration and development would result in the construction or improvement of access roads, increased traffic, use of heavy machinery, and presence of workers on the landscape, all of which may produce increased levels of noise, alter the viewshed, depreciate apparent naturalness, and reduce opportunities for solitude and primitive recreation. The use of hazardous materials in mineral development sites could also harm vegetation, water resources, and wildlife in LWCs, further altering the naturalness of such lands.

The degree of the intensity of such impacts to wilderness characteristics would be influenced by the location of surface-disturbing activities, existing vehicle access to the lease, the size of the drill pad area and any associated temporary or permanent disturbance, surrounding landforms and topography, vegetation type, season of development, and reclamation processes and their duration. Areas with more terrain variation and elevation differences will offer more topographic screening of the sights and sounds of lease development. Flatter, more open areas will allow sights and sounds to be more noticeable at a greater distance from the well pad or access road. Likewise, larger vegetation, such as trees and large shrubs can help to visually screen or absorb the sounds of development more effectively. Potential impacts from development activities such as visual or audible disturbances or increased vehicle traffic would be temporary and localized to the construction area and access routes, occurring during the construction, drilling, and interim reclamation phase (30-60 days). Following this period of intense activity, removal of equipment and interim reclamation of the well pad would be expected to mitigate most impacts to wilderness characteristics, with the exception of apparent naturalness, within the vicinity of new developments. Table 52 below provides details on the LWC units potentially affected by this action:

Table 52: Projected Surface Disturbance for Leases within LWC Units

Field Office	Lease No.	LWC Unit	LWC Acres in Unit	Projected Surface Disturbance in Acres	Percentage of LWC acreage disturbed*
Moab	UTU93004	Labyrinth Additions	9587	15	.15%
Moab	UTU93005	Goldbar	6917	15	.21%
Moab	UTU93008	Trough Springs Additions	7682	15	.19%
Moab	UTU93010	Hatch Wash	11,031	15	.13%
Vernal	UTU91937	Desolation Canyon A	11,161	14	.13%
Vernal	UTU91938	Desolation Canyon B	13,281	0	0%
Vernal	UTU92670	Sheep Wash	8605	2.1	.02%
Vernal	UTU93260	Pete's Wash	6241	11.2	.18%
Vernal	UTU93261	Badlands Cliffs	11,856	1.2	.01%
Vernal	UTU93651	Lower Bitter Creek	11,417	70	.61%
Vernal	UTU93660	White River	571	3.1	.54%
Vernal	UTU93661	Archy Bench A; Lower Bitter Creek	18,146	54.6	.03%
Vernal	UTU93662	Lower Bitter Creek	11,417	86.9	.06%
Vernal	UTU93668	White River	2300	21	.91%
Vernal	UTU93675	Bitter Creek	33,488	100.6	.30%
Vernal	UTU93692	Dragon Canyon	14,316	112	.78%
Vernal	UTU93695	White River	6613	14	.21%

Field Office	Lease No.	LWC Unit	LWC Acres in Unit	Projected Surface Disturbance in Acres	Percentage of LWC acreage disturbed*
Vernal	UTU93881	Big Wash	6565	15.8	.24%
Vernal	UTU93899	Archy Bench A	6729	21	.31%
Vernal	UTU93904	Lower Bitter Creek	11,417	84.2	.04%
Vernal	UTU93920	Duck Rock	5377	56	1.0%
Vernal	UTU93921	Duck Rock	5377	7.2	.13%
Vernal	UTU93922	White River; Duck Rock	9690	82	.85%
Vernal	UTU94135	Pete's Wash; Badlands Cliffs	18,096	25.2	.14%

*This assumes all surface disturbance projected for the lease would occur within LWC.

Moab Field Office

Four leases in the Moab FO (see table above) overlap LWC units not managed to prioritize protection of wilderness characteristics but have the following stipulations attached:

UT-S-365: CSU – Lands with Wilderness Characteristics; UT-S-372: NSO – Recreation (High Use Recreation Routes and Trails); UT-S-376: Baseline CSU – Recreation (Canyon Rims, Labyrinth Rims/Gemini Bridges and South Moab SRMAs); UT-S-384: CSU – Soil (Steep Slopes); UT-S-387: NSO – Water (Ephemeral Streams); UT-S-404: NSO – Visual Resources VRM II Areas. Each of the four leases partially overlap their respective LWC units; therefore, opportunities for lease development outside each LWC unit will be available. Implementation of the above listed lease stipulations is expected to reduce the likelihood of APDs filed within LWC units and subsequently the maximum number of potential acres of LWC surface disturbance listed in the preceding table. Due to the attached lease stipulations, potential impacts to wilderness characteristics within overlapping portions of LWC units are expected to be low, resulting in a minimal potential loss of LWC acreage. Potential impacts to outstanding opportunities for solitude and/or primitive recreation are also expected to be localized and temporary during exploration and development. No bisection of LWC units will occur.

Vernal Field Office

Twenty leases in the Vernal FO (see table above) overlap LWC units not managed to prioritize protection of wilderness characteristics but have the following stipulations attached:

UT-S-96: NSO – Fragile Soils/Slopes Greater than 40%; UT-S-99: CSU – Fragile Soils/Slopes; UT-S-100: CSU – Fragile Soil/Slopes (21%-40%); UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves. Some leases only partially overlap an LWC unit so opportunities for lease development outside the LWC unit will be available. Implementation of the above listed lease stipulations is expected to reduce the likelihood of APDs filed within LWC units and subsequently the maximum number of potential acres of LWC surface disturbance listed in the preceding table. Due to attached lease stipulations, potential impacts to wilderness characteristics within overlapping portions of LWC units are expected to be low, resulting in a minimal potential loss of LWC acreage. Potential impacts to outstanding opportunities for solitude and/or primitive recreation are also expected to be localized and temporary during exploration and development. No bisection of LWC units is anticipated.

AIB-4 Cultural Resources

How would potential development of the leases affect cultural resources?

Prior to the original lease sales, the BLM conducted a series of cultural resource literature reviews and analyses of the 195 leases using the information from completed cultural resource surveys, including Class III – Intensive Pedestrian Surveys (Class III survey), and known cultural resources sites found within BLM Utah’s cultural resources database (CURES), Utah Division of State History Sego database, and the J. Willard Marriott Library of the University of Utah online archaeological record collection (UDAM). The BLM also compiled cultural resource data from the seven FOs’ cultural resource records. These data sources contain information on all the recorded cultural resource sites and cultural resource surveys conducted within and adjacent to the 195 leases. This analysis included compliance with the NHPA, and its implementing regulations at 36 CFR § 800, to evaluate potential adverse effects to historic properties, as defined by 36 CFR § 800.16(l)(1). See Appendix F.3 for the NHPA 54 USC 306108 (hereafter, Section 106) process that was used to help inform, but is separate from, the NEPA analysis of impacts to cultural resources. For the purpose of NEPA, cultural resources include historic properties and archaeological sites and places of cultural significance that may or may not be eligible for the National Register.

For the analyses, the BLM reviewed the cultural resource literature review data in relation to the lease locations to determine if oil and gas development could occur in accordance with the relevant foreseeable development without potentially incurring significant impacts to cultural resources. The analysis additionally identified and attached any applicable lease stipulations and/or notices for the protection of cultural resources.

The BLM’s literature reviews analyzed each lease, plus a 0.5-mile buffer around each, to assess potential impacts. To broadly summarize, 137 leases have cultural resources documented within their boundaries, and 58 leases have no cultural resources documented within them. Of the 137 leases with documented cultural resources within them, 129 leases have documented cultural resources within 0.5 mile of each lease. Of the 58 leases with no documented cultural resources within them, 47 of the leases have documented cultural resources within 0.5 mile of their boundaries. Eleven leases have no documented cultural resource in or within 0.5 mile of their boundaries. Cultural resources within a lease could be directly impacted from surface-disturbing activities related to the construction of a well pad, its access road, and related infrastructure.

These cultural resources include both documented archaeological sites and currently undocumented cultural resources. Cultural resources in and within 0.5 mile of a lease being developed could be indirectly impacted through the introduction of visual, audible, or atmospheric elements, such as dust.

In determining the lease plus 0.5-mile buffer size for its analysis, the BLM took into consideration the foreseeable potential effects of the leasing action, foreseeable development, and the environment in which those effects would occur. The cultural resource analysis area covers the geographic area in which the construction and use of a well pad, with its associated infrastructure, may directly or indirectly cause alterations in the character or use of potential cultural resources. Although cultural resources within the leases are analyzed for foreseeable potential impacts from foreseeable development, cultural resources within the 0.5-mile buffer are not directly impacted from foreseeable development. Therefore, those cultural resources within the 0.5-mile buffer have been analyzed for potential indirect impacts (i.e., visual, audible, or atmospheric impacts) only. Topographic complexity adds to the limited visual range of many parts of these leases. When vegetation, topography, and effects from modern human occupation and development are taken into account, camouflaged well facilities will not indirectly impact cultural resources outside a 0.5-mile radius in such a way that adversely impacts the setting, feeling, or association of a cultural resource. Outside of 0.5-mile radius, potential indirect effects, based on foreseeable development, become a part of the modern human landscape.

Current research in the Monticello FO has potentially identified an additional cultural resource phenomenon identified as “berms and swales.” Draft, preliminary data suggests that these resources may be indicative of ancient dry land agriculture and water harvesting (Hurst, Winston, 2022a) (Hurst, Winston, 2022b). Researchers have preliminarily identified these berms and swales as topographic anomalies at a reconnaissance-level through LiDAR, aerial imagery, and a limited amount of field verification. Based on the draft data provided to BLM by the researchers, potential berms and swales overlap, or are within 0.5 mile of, leases: UTU93723, UTU93724, UTU93735, and UTU93732. To date, no archaeological site for the berms and swales phenomenon has been documented for these potential features within or within 0.5 mile of the leases. In 2024, during consultation with the Pueblo of Acoma for a different project in the Monticello FO, the Pueblo of Acoma expressed that they consider the berms and swales to be cultural resources for their tribe.

Altogether for the 195 leases, based on the known cultural resources within all of the leases, cultural resource survey coverage within the leases, the previous oil and gas development history of the area, the individual size of the leases, the application of the HQ-CR-1: Cultural Resources Protection stipulation, application of other applicable lease stipulations and notices, and the foreseeable development scenario for potential development, the BLM anticipates that potential development can occur within the leases without adverse impacts to cultural resources and without an adverse effect to historic properties. The enforcement of stipulation HQ-CR-1 - Cultural Resources Protection at the time of development gives the BLM the authority to require the modification of, or even disapprove, lease development plans if cultural resources conflicts cannot be resolved, specifically conflicts with historic properties and other resources protected under the NHPA. This regulatory protection enables the BLM to avoid, minimize, or mitigate appreciable impacts to cultural resources within the leases. As a result, further detailed analysis of this issue is not required at this time.

Appendix F.3 provides information about BLM's compliance with the NHPA Section 106 process. In summary, BLM reached a finding of "No Adverse Effect" to historic properties (36 CFR 800.5 (b)) for all 11 lease sales from which the 195 leases were sold. Due to disagreements from NHPA Section 106 consulting parties and/or Tribes regarding the BLM's finding of effect to historic properties for six of the 11 lease sales, the BLM sought an opinion from the Advisory Council on Historic Preservation (ACHP) opinion for those six lease sale undertakings. In those instances, the BLM considered the ACHP's opinion in determining its final finding of effect to historic properties. These opinions are summarized in Appendix F.3. The Section 106 process has concluded for all 11 lease sale undertakings.

For future oil and gas developments within any of the leases, the BLM will not approve any ground-disturbing activities until it completes its obligations to consider cultural resources and historic properties under the NEPA, the NHPA, and other authorities specific to those future developments. This includes the Native American Graves Protection and Repatriation Act (NAGPRA), which may require the development of a Plan of Action for potential inadvertent discoveries, as defined by 43 CFR Subtitle A § 10.2. New analysis of impacts to cultural resources and potential adverse effects to historic properties would be conducted during the review stage of any future site-specific development plans through new NEPA and NHPA Section 106 review processes. Future site-specific identification, including Class III survey, and analysis may identify and document unknown and unrecorded cultural resources.

AIB-5 Dark Night Skies

How would potential development of the leases impact the quality of night skies on public lands?

Dark night skies contribute to the remote experience that many people seek when they visit public lands. Light pollution diminishes the aesthetic and values of the night sky by making it difficult to see fainter stars or other faint celestial objects. Optimal night skies are free of scattered light or skyglow, which is generated by anthropogenic light from development, transportation, or industrial operations. The scattering of artificial light in the atmosphere increases night sky luminance and erodes the visual appearance of stars and planets (BLM, 2023).

The Bortle Dark-Sky Scale is a nine-level numeric scale used to measure the night sky and star brightness (naked-eye and stellar limiting magnitude) of a particular location. The scale ranges from class 1, the darkest skies available on Earth, through class 9, inner-city skies (Bortle, 2001). The most common cause of skyglow is man-made lights that give off light pollution.

Bortle scale classes are correlated with a sky quality meter (SQM) rating used to quantify the skyglow aspect of light pollution and uses units of "magnitudes per square arcsecond". SQM ratings use a scale between the numbers of 16.00-22.00. At the lowest number—16.00—the sky is the brightest. (Falchi et al. 2016). Customarily, this class would transpire in urbanized areas. Meanwhile, a number of 22.00 represents the least luminance—in other words, the least light pollution and the very darkest night sky. Typically, this reading would generally materialize in remote, uninhabited areas.

Based on the 2024 data from <http://www.lightpollutionmap.info> (Falchi et al. 2016), the overwhelming majority of leases occur primarily in Bortle Class 1 skies with SQM values between 21.8-22.0, the highest quality of dark night skies possible. Bortle Class 1 areas are described as Excellent Night Sky sites where portions of the Milky Way cast obvious shadows, many constellations are difficult to distinguish within the heavy background of visible stars, sources of zodiacal light, airglow, and globular clusters are readily visible to the naked eye, and both Jupiter and Venus are bright enough to affect night adaptation. Some leases occur near or adjacent to developed or inhabited areas with Bortle Class 2 skies that have SQM values between 21.5-21.8 where the background sky has a slightly gray shade due to atmospheric scattering or airglow on the horizon and where some deep sky objects are visible with the naked eye (Bortle, 2001).

Potential impacts to night skies associated with development of the leases would include flaring and temporary lighting during nighttime construction activities. Light pollution impacts would include lighting at facilities as well as oil and gas developments as needed for safety and security that would contribute to sky glow and adversely affect night skies. Impacts on night skies would last for the duration of the leases, if developed, and would begin during construction and would last through operations, maintenance, and decommissioning until the reclamation process is completed. These effects would be temporary and transient in nature and would vary based on conditions such as cloud cover, weather (precipitation events), and wind speed or direction. For example, most artificial lighting would occur during the drilling, construction, and potential flaring of a well within the first 60-90 days. Lighting from the other phases of development and production would occur from vehicle traffic or safety lighting. While production impacts would be minimal and temporary, they would also be considered long-term as the lighting impacts would remain in effect for more than 2 years.

Further detailed analysis of the potential impacts to night skies would be analyzed as appropriate when oil and gas development plans and APDs are submitted. Impacts related to light pollution of night skies would be mitigated and minimized through development of a lighting plan at the APD stage, including the planning principles and the identification of BMPs, as detailed in *Night Sky and Dark Environments: Best Management Practices for Artificial Light at Night on BLM-Managed Lands* (BLM 2023). Specific BMPs include having a lighting plan prepared by a qualified lighting designer, selecting luminaires certified to minimize light pollution, identifying light-sensitive receptors, conducting a baseline study of existing light pollution and night sky conditions, and establishing a lighting and light pollution monitoring program. Additionally, mitigation measures for impacts to night skies associated with oil and gas development such as flaring would include using enclosed flare systems for gas flaring and similar operations to shield light, noise, and heat release. This would result in no visible flame protruding above the structures and could include shaded or directional lighting on structures and shrouded gas flare stacks. The application of BMPs and design features would mitigate, limit, and prevent impacts on night skies associated with future development of any of the leases.

AIB-6 Fluid Minerals

How would potential development of the leases impact mineral resources and energy production?

Oil and gas exploration could lead to an increased understanding of the geologic setting, as subsurface data obtained through lease operations may become public record. This information promotes an understanding of mineral resources as well as geologic interpretation. While conflicts could arise between oil and gas operations and other mineral operations, these could generally be mitigated under 43 CFR § 3101.12 and under standard lease terms (Sec. 6) where siting and design of facilities may be adjusted to protect other resources.

Depending on the success of oil and gas well drilling, natural gas and/or oil would be extracted and delivered to market. The estimated potential development is documented in section 3.2.1. Production of oil or gas would result in the irretrievable loss of these resources (i.e., they would no longer be available for future development). The various RMPs (see Appendix C.4) made these resources available for oil and gas leasing. The future estimated production under each alternative is listed in Table 53 as well as the percentage it makes up of the total production from Federal lands and all lands in Utah. There are approximately 19.6 million acres of federal mineral estate in the planning area for the seven FOs where the leases are located. And approximately 16.0 million acres that are open to oil and gas leasing across the planning areas.

Table 53: Estimated future production by alternative

Alternative	Estimated Total Gas Production (mcf)	Estimated Total Oil Production (bbls)
Alternative A	0	0
Alternative B – Affirm All Leases	1,769,290,309	63,883,741
Alternative C – Resource Conflict Avoidance	655,971,093	17,285,283

Any oil and gas development can be managed to avoid or work within the potential development of other mineral resources. Mining claims and Mineral Materials permits were checked in preparation for the original lease sales. No active placer claims, or Mineral Material sites were found within the leases.

The majority of flow back water (water originally injected from the surface) from hydraulic fracturing in Utah is recycled and used in future hydraulic fracturing completions. Therefore, the underground injection of hydraulic fracturing flow back in Utah is very limited and presents little potential for inducing seismic activity. In fact, there has been no reported induced seismicity in Utah attributable to water injected into Class II water disposal wells. Oil and gas wells produce a great amount of wastewater (water originating from the producing formation.) Most of this water has high salt brine content and must be disposed of in an environmentally safe manner. In Utah, a majority (95%) of this produced water is pumped into Class II injection wells. In certain parts of the country, water injection has caused some induced seismicity in the form of small earthquakes. Two major factors play a role in induced seismicity from water injection. First, the amount of water being injected. Secondly, the local geology of the water injection site. In Utah, the volumes are lower than those states experiencing induced seismicity. Also, the geology is

different than those states experiencing induced seismicity. The injection zones are stratigraphically thousands of feet above the basement rock that may contain large unknown faults. Therefore, at this time, it appears that induced seismicity from water injection is not a problem in the oil fields of Utah. (Personal communication from John Rogers, Utah Division of Oil, Gas and Mining (UDOGM), March 27, 2018).

There are currently no other mineral materials conflicts within the leases. Additionally, they have already been issued by the BLM, and are in some cases, currently producing. The increase in the amount of fluid minerals extracted in Alternatives B and C would not impact other mineral resources, therefore this issue does not require additional analysis.

AIB-7 Invasive Species (Noxious Weeds)

How would potential development of the leases affect the introduction and/or spread of invasive species and noxious weeds?

There are currently various populations of noxious weeds across the seven FOs. Noxious and invasive weeds that are present or may be present in the general area are primarily associated with existing areas of development and disturbance. These species can be found along roads, ditches, well locations, and other disturbance areas at or near the leases. The extent of infestation and persistence of weeds would be dependent on monitoring and treatment in accordance with the site-specific implementation level analysis and actions at the APD stage.

Anticipated total surface disturbance for Alternative B is approximately 195 acres for leases outside of Vernal and 5,732 acres within the Vernal FO. For Alternative C, the acres of disturbance for areas outside of Vernal are approximately 190 acres and 1,357 acres within the Vernal FO. The proposed surface disturbance would remove native herbaceous and woody shrub vegetation, primarily from the desert shrub community. Some surface disturbance would be temporary in overall nature (areas used for initial staging would be interim reclaimed), taking potentially a minimum of two to three growing seasons to establish vegetation once reclamation begins. Removal of topsoil and native vegetation would result in a localized loss of individual plants and spatial niche for invasive and noxious weed species to proliferate. New ground disturbance that exposes underlying soils creates the ideal seed bed for invasive and non-native weeds species to germinate. Uncleaned construction equipment and vehicles entering the project area are potential vectors for introducing invasive weeds not currently present.

Reasonably foreseeable effects to the resources, when added to effects from other actions in and near the project area and the local watersheds, would include short-term and long-term effects from removal of existing herbaceous and shrubland vegetation that creates niches for invasive species. This removal is expected to increase with the current level of oil and gas development, and the recent filing pattern of Applications for Permits to Drill and right-of-way applications within the Vernal FO in previous years. The increase for the other FOs would be much less.

Industry practices that minimize weed transport from construction equipment such as power washing and appropriate staging (avoiding weed infestation areas) and proper spraying (both timing and herbicide selection) may lessen the density of new weed colonization within the construction area and aid in reclamation efforts. Additionally, LN-52 – Noxious Weeds, and UT-

S-305: CSU- Noxious Weed specific to the Price FO is attached to all leases in the sale (See Appendix B for more information). Seed mixes that maximize management of weed emergence are important for returning the site's sustainability and production.

Prior to any potential development of the lease, the lessee or applicant would be required to contact BLM before any seeding and weed management activities occur to document the activities and coordinate potential site visits by the BLM. Weed management would be in adherence to the local FOs invasive species management plan and/or integrated pest management plan. The well pads, roads, access corridors and any other long-term exposed surface would be treated through either chemical or mechanical means to control weeds. It is mandatory that a Pesticide Use Permit be obtained for applying herbicides on public lands managed by BLM.

AIB-8 Livestock Grazing

How would surface disturbance associated with potential development of the leases affect livestock grazing and Rangeland Health?

The action of leasing does not have a direct effect to livestock grazing nor on the achievement of Rangeland Health Standards. Should development be proposed within leases, additional, site specific NEPA analysis would be completed to assess the potential impacts to livestock grazing within the project area when an APD is submitted. The analysis would also consider the effect of the APD(s) given current conditions of the landscape.

Under the Proposed Action for the Lease Sale, livestock grazing would continue. However, should oil and gas development occur on the lease, loss of forage and possible reductions of permitted AUMs could occur in affected allotments due to soil and vegetation disturbance and development activity. Livestock movement patterns could be altered and access to range improvements could be hindered by new roads, well pads, and human presence and activity. Increased traffic may lead to an increase in vehicle-livestock collisions, and increased livestock mortality. Potential impacts to specific allotments, pastures, and range improvements would be analyzed with additional site-specific NEPA review at the APD stage. Any mitigation measures and design features protecting range improvements would be identified at the development stage. Any range improvement project replacement/restoration (e.g., fences, troughs and cattle guards) would be identified in future NEPA/decision documents on a case-by-case basis (at the APD stage). In addition, if any existing range improvement projects that could be impacted by wells or associated infrastructure, those well pads could be moved 800 meters to avoid the existing rangeland improvements in accordance with 43 CFR 3101.12. Reasonably foreseeable effects to livestock grazing, when added to effects from other past or foreseeable future lease sales within the allotments, would include short-term and long-term effects from removal of existing herbaceous and shrubland vegetation that incrementally decreases available forage until the life of the well has expired. Any reclamation could be decades later. This incremental loss of forage is expected to increase with the past, current and potential future level of oil and gas development.

Table 54 Table 54 shows the estimated area of surface disturbance for total allotments with leases by FO for Alternative B. Table 55 shows the estimated area of surface disturbance for total allotments with leases by FO for Alternative C which would not affirm 98 leases within Greater

Sage-grouse habitat, the Uinta Basin *Sclerocactus* core conservation areas and the White River penstemon conservation areas within the Vernal FO. This would reduce the total surface acres as noted in the table. Alternative C would reduce the number off allotments affected from 44 to 8 in the Vernal FO.

This issue is not analyzed further because no specific concerns were identified during the internal and external scoping period or any of the litigation and as stated above there is no direct effect at the lease stage to livestock grazing.

Reasonably foreseeable effects to livestock grazing, when added to effects from other past or foreseeable future lease sales within the allotments, would include short-term and long-term effects from removal of existing herbaceous and shrubland vegetation that incrementally decreases available forage until the life of the well has expired. Any reclamation could be decades later. This incremental loss of forage is expected to increase with the past, current and potential future level of oil and gas development.

Table 54 Alternative B Disturbance by Allotment by Field Office

Field Office	Number of allotments	Total surface disturbance (acres)**	Total allotment acres
Fillmore	10	6	59,348
Moab	1*	45	46,488
Moab (MLP)	9	16.4	692,648
Monticello	8	9.6	104,650
Price	15	79	473,367
Richfield	12	34	321,506
Salt Lake	0	5.5	0
Vernal	44	5732	1,394,237

*The Athena allotment has a small portion of its boundary within the Moab MLP boundary, but six leases are found within the allotment but outside the MLP.

**See Table 3 (Foreseeable Development Summary for Leases in Each Field Office)

Table 55 Alternative C Disturbance by Allotment by Field Office

Field Office	Number of allotments	Total surface disturbance (acres)**	Total allotment acres
Fillmore	10	6	59,348
Moab	1*	45	46,488
Moab (MLP)	9	16.4	692,648
Monticello	8	9.6	104,650
Price	15	79	473,367
Richfield	12	34	321,506
Salt Lake	0	5.5	0
Vernal	8	1,357	1,394,237

*The Athena allotment has a small portion of its boundary within the Moab MLP boundary, but six leases are found within the allotment but outside the MLP.

**See Table 3 (Foreseeable Development Summary for Leases in Each Field Office)

AIB-9 Migratory Birds and Raptors

How would potential development of the leases affect migratory birds in Bird Conservation Regions 9, 10, 16?

Bird habitat on the leases ranges from Colorado Plateau Mixed Low Sagebrush, Shrubland Inter-Mountain Basins Big Sagebrush, Shrubland Colorado Plateau Pinyon-Juniper to Woodland Inter-Mountain Basins, Mixed Salt Desert Scrub, Great Basin Shrublands, and Mixed Pinyon and Juniper Woodlands (see AIB-23 for more information on vegetation types).

Potential development could cause direct loss of habitat, noise and activity disturbance from the building of roads and pad development. Habitat fragmentation could also occur by structures and roads occupying habitat. The BLM uses monitoring data from the Integrated Bird Monitoring in Bird Conservation Regions and has been conducting annual migratory bird surveys since 2017. Thirty-three of the Leases occur in Bird Conservation Region 9 The Great Basin, one Lease occurs in BCR 10 the Northern Rockies the rest all occur in BCR 16 the Southern Rockies and Colorado Plateau. The BLM also uses the Raptor Inventory Nest Survey (RINS) a Science Partner and Hawkwatch International as well as BLM Biologists to locate and monitor raptor nests.

The Migratory Bird Treaty Act (MBTA) protects migratory birds by not allowing take, this includes possession of birds or their parts such as feathers and not harming birds or their nests. Well pad and road construction associated with future development of the leases may impact migratory birds by reducing habitat and causing habitat fragmentation. Drilling, completion, and production may disrupt migratory birds due to presence of humans and equipment. These impacts would not affect overall population health and viability within the Bird Conservation Region. BLM Instructional Memorandum No. 2008-050 requires the BLM to address the potential effects of ground-disturbing activities on migratory bird populations and their habitat and implement best management practices to avoid or minimize the possibility of impacts. These include conducting surveys for nests, applying timing limitations during nesting seasons, and conducting post-implementation monitoring. For oil and gas operations, this is typically done at the APD stage in the form of COA's, such as use of bird cones over exhaust stacks, pre-construction surveys, and raptor buffers. All leases have UT-LN-49 attached as well as migratory bird stipulations and notices. UT-LN-49 states that 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. The lessee/operator is also given notice that lands in this lease 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.

Lease Notice UT-LN-44 for Raptors is attached on all leases which gives notice that appropriate seasonal and spatial buffers shall be placed on all known raptor nests, and Lease Notice UT-LN-45 for Migratory Birds which gives notice that surveys for nesting migratory birds may be required during migratory bird breeding season whenever surface disturbances and/or occupancy is proposed.

Further analysis of this issue is not required because impacts to migratory birds and raptors would not cause population level effects and appropriate COA's to protect migratory birds and raptors would be enforced at the APD stage.

AIB-10 National and State Parks

Arches and Canyonlands National Parks are 5 miles from the nearest lease and Capitol Reef National Park is 6.6 miles away from the nearest lease. Leases within the vicinity of Arches and Capitol Reef National Parks are topographically screened. Potential indirect impacts from oil and gas lease development would not occur at this distance due to a combination of distance and topographic screening. Lease stipulation UT-S-408 also requires noise mitigation efforts to be implemented with a maximum level of 55 decibels for production equipment (measured from the direction of the Park at a distance of 350 feet from source) if the lease is within 6.1 miles (9,800 meters) from Arches or Canyonlands National Parks.

Yuba State Park is 0.25 miles from the nearest lease (UTU93065) and is the closest state park to any of the leases. Other state parks that are within the vicinity of leases include Dead Horse Point 1.5 miles, Green River 3 miles, Huntington Reservoir 5 miles, Palisades 5.6 miles, Utah Raptor 6.8 miles, and Goblin Valley 8 miles. Potential indirect impacts from oil and gas lease development would not occur at these distances due to a combination of distance and topographic screening except for those leases adjacent to Yuba State Park. If the lease near Yuba State Park is developed it may be visible from the Park depending on which part of the lease has infrastructure placed on it.

AIB-11 National Wildlife Refuge

Lease UTU-92685 lies adjacent to the Ouray National Wildlife Refuge (NWR); this lease has a foreseeable development estimate of potentially one well and 1.1 acres of surface disturbance. The Green River runs through the Ouray NWR which was originally established for Special Status Species of fish in the Green River. The Green River riparian corridor is also important for migratory birds including waterfowl.

There are already roads and several well pads existing near this lease, and the area adjacent to the NWR is already developed.

Due to the lease notices and stipulations placed on this lease providing NSO buffers for wetland and riparian, notice of restrictions due to threatened and endangered fish critical habitat and migratory birds, and others as listed in Appendix B, sufficient protections are provided such that more detailed analysis is not warranted.

AIB-12 Native American Concerns

How would potential development of the leases affect Native American Concerns?

The BLM is not aware of any documented traditional cultural properties or sacred sites located in or near the leases. However, resources and locations of Native American religious and traditional concern may be present within the leases. See Appendix F.2 for Tribal consultation efforts conducted by FO for the multiple lease sales related to all 195 leases. Any future development

associated with any potential for ground disturbance of the leases would be required to go through new NEPA and NHPA Section 106 processes, which includes new consultation with Tribal Nations. These processes are directed by regulation and current policy in order to analyze and disclose any potential impacts to any Native American concerns regarding resources and locations.

Lease notice UT-LN-68: Notification & Consultation Regarding Cultural Resources has been applied to some of the 195 leases at the time of their issuance. UT-LN-68 notifies lessees that the BLM will not approve any ground activities as part of future lease operations until the BLM completes applicable requirements of the NHPA, which includes notification and consultation with appropriate Native American Tribes.

AIB-13 Old Spanish National Historic Trail

How would potential development of the leases affect the Old Spanish National Historic Trail?

BLM manages the Old Spanish National Historic Trail (OSNHT) in accordance with the National Trail System Act. Congress officially designated the Old Spanish National Historic Trail in 2002. This designation recognized the trail's significance as a historical trade route between Santa Fe, New Mexico, and Los Angeles, California during the period of significance of 1829-1848. The trail, which spans over 2,700 miles across six states (New Mexico, Colorado, Arizona, Utah, Nevada, and California) is jointly administered by the National Park Service and the BLM. Twenty-five of the leases contain elements of the OSNHT.

Table 56 Leases Containing Elements of the OSNHT

Field Office	Lease Number
Price FO	UTU91060
Richfield FO	UTU91055, UTU91058, UTU91060, UTU92311, UTU92312, UTU92313, UTU93252
Moab FO	UTU93001, UTU93002, UTU93003, UTU93008, UTU93010, UTU93012, UTU93013, UTU93014, UTU93705, UTU93707, UTU93708, UTU93710, UTU93711, UTU93712, UTU93712, UTU93714, UTU93715
Moab FO – Master Leasing Plan (MLP) area	UTU93003, UTU93008, UTU93010, UTU93012, UTU93013, UTU93014, UTU93711, UTU93712, UTU93714, UTU93715

Price Field Office

The lease found in the Price FO (UTU91334) contains partially retained historic integrity for the OSNHT. The views to the east of the trail have retained historic integrity, but the views to the

west of the trail have lost integrity due to developed agriculture and residential structures. There are no High Potential Sites or route segments within this lease.

Within the Price FO, the *Old Spanish National Historic Trail Recreation and Development Strategy Emery County, Utah* (BLM, 2017) identified the primary recreational activities as motorized use along State Highway 10 and the Green River Cutoff Road. The closest recreation sites to UTU91334 that have trail connections on BLM-administered land are the Black Hills and Red Seeps OHV Trailheads and are outside the viewshed of the lease. The BLM and local partners promote recreational activities along this portion of the trail at the Museum of the San Rafael through the *Old Spanish National Historic Trail Mobile Map* (<https://www.blm.gov/services/geospatial/mobile-GIS/old-spanish-nht>).

The BLM uses the BLM's Visual Resource Inventory process, as defined in BLM Handbook 8410-1 Section II, to quantify scenic quality. The process ranks seven factors (land form, vegetation, water, color, adjacent scenery, scarcity, and cultural modification) and the resulting score receives an A, B, or C rating. Using this process, the BLM determined that the scenic quality along this portion of the OSNHT has a low B score, thus, it is considered below average.

The introduction of roads, pipelines, and pad development would not contribute to the period of significance for the OSNHT. The period of significance for the OSNHT has been defined by Congress to be the years 1829-1848. Any activities before or after this time period are outside the period of use of the OSNHT. Therefore, future introduction of roads, pipelines, and pad development do not contribute to the trail's period of significance. The introduction of these oil and gas development elements has the potential to impact the historic setting primarily to views to the east of the trail. The scenery of the OSNHT may also be impacted along with recreational uses and user experience.

Based on the BLM's review and application of UT-LN-65, potential development on this lease would have a minimal impact to the trail. The attached lease notice could bring about COAs that address the quality of the resource in the area. No substantial interference with the nature and purpose of the trail or the key elements of cultural, historic setting integrity, recreation, scenery, or natural resources contributing to the OSNHT would occur.

Richfield Field Office

Leases in the Richfield FO are found within the Sevier Valley. All leases are adjacent to private property and separated from the trail by private property. There are no High Potential Sites or route segments in any of the leases. The overall historic integrity of this area for the OSNHT is partially retained. The views to the southeast of the trail are partially retained and views to the northwest are not retained. The integrity to the northwest is compromised by private development and structures.

The *Old Spanish National Historic Trail Recreation and Development Strategy Sevier, Piute, and Garfield Counties, Utah* (BLM and NPS, 2018) identifies the primary recreational use of the OSNHT to be motorized along I-70 and secondary roads that parallel the trail. No recreational sites connect to the OSNHT within the viewshed of the leases. BLM and local partners promote the recreational use of the trail at the Richfield Visitor Center through The Old Spanish National

Historic Trail Mobile Map. The scenic quality rating along the trail has a low B score, thus, it is considered below average.

The introduction of roads, pipelines and pad development would not contribute to the period of significance for the OSNHT. The introduction of these oil and gas development elements have the potential to impact the historic setting primarily to views to the southeast of the trail. The scenery of the OSNHT may also be impacted along with recreational uses and user experience.

Based on the BLM's review and application of UT-LN-65, potential development of these leases would have a minimal impact to the trail. The attached lease notice could bring about COAs that address the quality of the resource in the area. No substantial interference with the nature and purpose of the trail or the key elements of cultural, historic setting integrity, recreation, scenery, or natural resources contributing to the trail would occur.

Moab Field Office – Northern Portion

Leases UTU93705, UTU93707, UTU93708, UTU93710, UTU93001, UTU93002, UTU93702, UTU93003, UTU93712, UTU93715, UTU93714, UTU93711 are in the northern portion of the Moab FO within Little Grand Wash. The Blue Hills and Book Cliffs High Potential Route Segments of the OSNHT are within these leases. These High Potential Route Segments were identified by trail administration for their recreational opportunities, presence of trail trace, and retained and partially retained setting. Two branches of the trail intersect in this area: the North Branch traverses from Grand Junction, Colorado to Green River, Utah and the Northern Route from Moab to Green River.

The overall historic integrity of the Northern Route, which includes the Blue Hills High Potential Route segment, is partially retained and views to the south are fully retained. The overall historic integrity of the Northern Branch is also partially retained on the I-70 segment but fully retained on the Green River Gap segment. Existing roads, signs, and powerlines in the area already add features which are outside of the period of significance of the trail. Due to topography, potential development within the leases would not be visible from the Green River Gap East Trailhead, which is 5 miles away. UTU 093705 is 2.2 miles from Green River Gap West Trailhead and does fall within the view of the trail.

The *Old Spanish National Historic Trail Recreation and Development Strategy, Grand County, Utah* (BLM and NPS, 2018), identifies the primary recreational use of the OSNHT to be motorized along Highway 6 & 50/I-70 and the Blue Hills Road with hiking and equestrian use along the Green River Gap segment. The closest recreation sites affiliated with the trail north of the leases are Green River Gap West Trailhead which is 2.2 miles from UTU093705, Crecent Junction Rest Area Overlook, which is 9.2 miles from UTU093707 and Upper Blue Hills OHV Trailhead, which is 4.2 miles from UTU093705. South of the leases, the closest recreation sites are the Courthouse Rock Campground and Halfway Stage Station which are 15 miles from UTU093711. BLM and local partners promote the recreational use of the trail through The Old Spanish National Historic Trail Mobile Map at the Moab Museum. Scenic quality along the trail has a scenic quality rating score of a B to high B, thus, it is considered above average.

The introduction of roads, pipelines and pad development would not contribute to the period of significance for the OSNHT. The introduction of these oil and gas development elements has the potential to impact the historic setting primarily to views to the southwest from Highway 6 & 50/I-70 and from the Blue Hills Road also to the southwest. The scenery of the trail may also be impacted along with recreational uses and user experience.

Based on the BLM's review and application of UT-S-395 and UT-LN-65, potential development of these leases will have a minimal impact to the trail. The attached stipulations and lease notice could bring about COAs that address the quality of the resource in the area. No substantial interference with the nature and purpose of the trail or the key elements of cultural, historic setting integrity, recreation, scenery, or natural resources contributing to the trail would occur.

Moab Field Office – Southern Portion

Leases UTU93008, UTU93012, UTU93010, UTU93013, UTU93014 are in the southern portion of the Moab FO within the Behind the Rocks/Hatch Wash area. The South Canyon High Potential Route Segment along with Looking Glass Rock, Casa Colorado Rock, and Las Tinajas High Potential Sites are within these leases. This High Potential Route Segment and these High Potential Sites were identified by trail administration for recreational opportunities, presence of trail trace, retained and partially retained setting, better than average scenery and significance to the history of the trail.

The North Branch in this area traverses from Cortez, Colorado to Moab, Utah. The overall historic integrity of the trail in this area is partially retained. Recorded mule train trail trace is present in this area. The primary features in the area, which are outside the period of significance for the OSNHT, are roads, signs, powerlines and infrastructure associated with grazing and mining.

The *Old Spanish National Historic Trail Recreation and Development Strategy San Juan County, Utah* (March 2018) identifies the primary recreational use of the OSNHT to be motorized along Highway 191 and the Peters Wash Road. It also identifies hiking and equestrian use along the trail in the Casa Colorado area and visits to Looking Glass Rock and Las Tinajas Watering Holes. People can also hike the trail at the Dry Valley Retracement Trailhead.

Recreation sites affiliated with the trail closest to the leases are Kane Springs Rest Area, 10 miles from UTU93012. Looking Glass Rock Recreation Site, 2.5 miles from UTU93010. Hook and Ladder OHV Trailhead, 4.3 miles from UTU93014. Casa Colorado Loop Trailhead, 7.7 miles from UTU93014, and the Casa Colorado Auto Route, 7 miles from UTU93014. BLM and local partners promote the recreational use of the trail through The Old Spanish National Historic Trail Mobile Map at the Moab Museum. The scenic quality rating score along the trail is a B to high B, thus, it is considered to be above average.

The introduction of roads, pipelines and pad development would not contribute to the period of significance for the OSNHT. The potential oil and gas developments would have the potential to impact the historic setting of the trail. The scenery of the OSNHT may also be impacted along with recreational uses and user experience.

Based on the BLM's review and application of UT-S395 and UT-LN-65, potential development on these leases would have minimal impact to the OSNHT. The attached stipulations and lease notice will bring about COAs that address the quality of the resource in the area. No substantial interference with the nature and purpose of the trail or the key elements of cultural, historic setting integrity, recreation, scenery, or natural resources contributing to the trail would occur.

AIB-14 Paleontological Resources

How would potential development of the leases affect known or unknown paleontological resources?

Paleontological resources are defined by the Paleontological Resources Preservation Act of 2009 (PRPA) as the fossilized remains, traces, or imprints of organisms preserved in or on the earth's crust that are of paleontological interest and that provide information about the history of life on earth (16 United States Code [U.S.C.] 470aaa[1][c]). The PRPA and the DOI regulations (43 CFR § 49.1(a) and 49.30(b)) implementing PRPA direct the BLM to "preserve, manage, and protect paleontological resources" on Federal land using scientific principles and expertise. The Potential Fossil Yield Classification (PFYC) system is a tool used to assess resource impacts and mitigation needs by providing estimates of the potential for paleontological resources within a geologic unit (BLM PIM 2022-009) which allows the BLM to predict the likelihood of encountering paleontological resources. The PFYC system is based on numeric classes of 1–5 (very low to very high) and unknown (U). A geologic unit identified as PFYC 1 has very low likelihood of containing paleontological resources, whereas a geological unit identified as PFYC 5 is a geologic unit that has a very high likelihood to contain and predictably produce scientifically significant paleontological resources. A class U assignment indicates that there is not enough information available for a formal class assignment. Areas of moderate to very high and unknown PFYC class (3-5, U) should be assessed prior to authorizing land use action (BLM, 2022).

Based on a review of published geological maps, the 195 lease areas contain over 100 unique mapped geologic units that were deposited from approximately 360 million years ago during the Carboniferous to the recent, many with high potential for containing paleontological resources. Therefore, a full list of potentially affected geological units is not included in this analysis. Instead, the Potential Fossil Yield Classification (PFYC) system is used to assess resource effects and mitigation needs by providing estimates of the potential for paleontological resources within a geologic unit (BLM, 2022). The geologic units within the 195 leases range in PFYC from 1-5 with more than half (62%) of the acreage classified as PFYC 4 or 5, 13% as PFYC U, 9% as PFYC 3, and 16% as PFYC 1 or 2 (Table 57). Areas of moderate to very high PFYC class (3-5) and unknown (U) should be assessed prior to authorizing land use action (BLM, 2022). PFYC class 3-5 areas are found in nearly all FOs, except that the Price leases have no PFYC 5 and the Monticello leases have no PFYC 3 or 4 (Table 57).

Although systematic paleontological resource surveys have not been conducted for the entirety of the leases, according to confidential paleontological locality data managed by the Utah Geological Survey (UGS), there are at least 340 known paleontological localities within the leases with typical fossils including invertebrates, plants, turtles, fish, dinosaurs, crocodilians, dinosaur footprints, and small mammals from at least 12 different geological units that span from

the Permian to possibly the Neogene (Table 58). The majority, 236, of these localities are found within the Vernal FO leases, while there are 89 in Moab FO leases, and few than 10 in Richfield, Fillmore, and Price FOs leases (Table 57). Additionally, many of the leases have exposures of geologic units with paleontological potential.

Table 57 Summary of Lease Acreage and Known Paleontological Localities by Field Office.

Field Office	1	2	3	4	5	U	Number of Localities
Richfield	4,096	967	0	3,678	13	6,522	9
Moab	0	1,884	7,357	6,780	4,809	3,221	89
Fillmore	16	2,107	8,893	1,762	75	961	5
Vernal	0	25,469	1057	55,278	69,031	14,655	236
Salt Lake	0	261	96	1305	327	315	0
Price	0	4,528	4,512	21	0	5,248	1
Monticello	0	0	0	0	7,401	920	0
Totals	4,113 (2%)	35,217 (14%)	21,914 (9%)	68,823 (28%)	81,665 (34%)	31,841 (13%)	340

Notes All acreages contained in the EA analysis were calculated using geographic information system (GIS) data sets for resources and the leases, which may differ slightly from the acreages contained in the legal descriptions. Difference in total acres between the leases and acres analyzed in the EA can vary slightly due to geoprocessing operations where slivers of area are created when two or more data sets intersect. Any inaccuracies are negligible and do not change the overall impact analysis conclusions presented in this EA. Locality Data Source: Utah Geological Survey confidential locality database. No systematic surveys were conducted for this assessment. The best data available were used and they illustrate the lowest number of paleontological localities possible within the leases.

Table 58 Approximate Numbers of Paleontological Localities Within the 195 Leases by Geological Age and Formation.

Geological Age	Geological Formation	Number of Localities
Neogene	Alluvium, Alluvial Gravel	2
Paleogene	Gray Gulch	1
Paleogene	Duchesne	12 (or 13)
Paleogene	Uinta	118 (or 19)
Paleogene	Green River	64
Paleogene	Wasatch	42
Paleogene	Flagstaff	2
Cretaceous	Mancos Shale	26
Cretaceous	Dakota	1
Cretaceous	Cedar Mountain	9
Jurassic	Morrison	53
Jurassic	Arapien Shale	8
Permian	Oquirrh	1
	Total	339*

Source: Utah Geological Survey confidential locality database. No systematic surveys were conducted for this assessment. The best data available were used and they illustrate the lowest number of paleontological localities possible within the leases. One locality does not have a geological age or formation data available and not included in the table.

Table 59 Acreage within the 195 Leases by Potential Fossil Yield Classification

Lease	1	2	3	4	5	U
UTU91058	267	376	0	83	0	1,212
UTU91060	19	87	0	309	0	762
UTU93001	0	23	185	74	1,384	294
UTU93002	0	37	0	320	968	85
UTU93004	0	19	0	460	0	0
UTU93005	0	0	240	186	288	3
UTU93008	0	404	20	513	33	18
UTU93010	0	0	0	300	0	0
UTU93012	0	65	0	15	0	0
UTU93013	0	0	0	24	0	16
UTU93014	0	324	0	243	0	82
UTU93702	0	23	0	519	0	29
UTU93705	0	0	1,971	0	0	104
UTU93707	0	0	1,576	0	2	394
UTU93708	0	0	1,164	0	0	244
UTU93710	0	70	1,031	9	239	632
UTU93711	0	308	70	897	148	80
UTU93712	0	211	73	1,672	128	209
UTU93714	0	28	601	0	85	618
UTU93715	0	38	332	125	1,259	230
UTU93003	0	335	93	1,083	275	182
UTU92765	0	0	1,301	0	10	0
UTU92766	0	166	2,017	0	0	132
UTU92487	0	0	1,965	218	0	0
UTU93603	0	99	580	688	0	176
UTU93604	0	305	569	574	65	209
UTU93602	0	410	1	0	0	396
UTU93605	0	952	767	0	0	48
UTU92807	16	176	1,693	281	0	0
UTU91068	0	95	8	0	70	30
UTU91343	0	0	86	0	73	481
UTU91342	0	0	0	0	0	162
UTU91311	0	0	0	220	0	0
UTU91932	0	0	0	0	152	167
UTU91933	0	0	0	0	816	441
UTU91937	0	0	0	0	320	0
UTU91938	0	0	6	18	16	0
UTU91946	0	62	0	0	0	15
UTU91949	0	26	0	297	0	0

Lease	1	2	3	4	5	U
UTU91950	0	156	0	2,050	0	0
UTU91953	0	0	0	0	80	0
UTU91948	0	0	0	0	0	40
UTU92670	0	0	0	0	14	626
UTU92674	0	21	529	0	90	0
UTU92676	0	0	0	0	320	0
UTU92677	0	324	0	0	477	250
UTU92679	0	271	0	0	660	0
UTU92680	0	0	0	0	374	1,082
UTU92682	0	4	0	0	1,656	121
UTU92683	0	35	0	0	1,116	0
UTU92684	0	197	0	0	1,020	473
UTU92685	0	202	0	0	80	45
UTU92686	0	41	0	597	0	0
UTU92695	0	338	0	114	1,590	233
UTU92696	0	0	0	0	204	157
UTU92697	0	192	0	0	370	0
UTU92698	0	94	0	0	229	0
UTU92700	0	345	0	0	1,453	62
UTU92701	0	61	0	0	259	0
UTU92702	0	425	0	0	293	0
UTU92703	0	192	0	0	167	0
UTU92704	0	189	0	0	364	0
UTU92708	0	0	0	1,138	0	1,262
UTU92709	0	25	0	1,393	44	116
UTU92710	0	266	0	1,081	335	242
UTU92711	0	940	0	132	1,463	27
UTU92712	0	153	0	712	14	1,473
UTU92713	0	270	0	31	1,108	514
UTU92714	0	1,129	0	0	394	0
UTU93261	0	0	0	0	268	91
UTU93645	0	38	0	2	0	0
UTU93646	0	0	0	0	84	0
UTU93650	0	65	0	0	604	0
UTU93651	0	261	0	12	1,324	0
UTU93655	0	151	0	0	250	0
UTU93656	0	329	14	0	1,538	0
UTU93657	0	191	58	0	2,195	0
UTU93658	0	187	117	0	1,832	0
UTU93659	0	166	28	0	2,371	0

Lease	1	2	3	4	5	U
UTU93660	0	0	0	0	231	0
UTU93661	0	137	0	0	1,109	0
UTU93662	0	88	0	68	1,828	0
UTU93663	0	0	0	128	1,463	0
UTU93664	0	0	0	415	2,138	0
UTU93665	0	65	0	728	0	0
UTU93666	0	0	0	1,999	0	0
UTU93668	0	22	0	0	453	0
UTU93669	0	66	0	854	199	0
UTU93670	0	67	0	1,924	0	0
UTU93671	0	64	0	1,401	293	0
UTU93672	0	145	0	1,445	8	0
UTU93673	0	173	0	1,581	0	0
UTU93675	0	90	0	2,211	0	0
UTU93676	0	20	0	1,175	2	0
UTU93679	0	239	0	2,113	0	0
UTU93681	0	0	0	1,913	0	0
UTU93684	0	31	0	158	0	14
UTU93685	0	30	0	43	0	0
UTU93686	0	213	0	1,240	0	0
UTU93687	0	265	0	1,839	0	0
UTU93688	0	329	0	1,070	0	0
UTU93692	0	137	0	2,391	0	0
UTU93694	0	20	0	0	20	0
UTU93695	0	140	4	0	181	4
UTU93696	0	21	0	59	0	0
UTU93697	0	0	0	80	0	0
UTU93718	0	4	0	0	1,272	0
UTU93725	0	0	0	0	624	0
UTU94003	0	83	0	0	0	0
UTU93881	0	0	0	0	219	980
UTU93882	0	0	0	0	168	951
UTU94135	0	0	0	8	137	1,777
UTU93884	0	0	3	26	11	0
UTU93888	0	118	0	0	533	0
UTU93899	0	247	0	0	1,353	0
UTU93900	0	206	0	0	1,476	0
UTU93901	0	0	0	0	1,466	0
UTU93902	0	166	0	27	1,247	0
UTU93903	0	342	0	81	1,471	0

Lease	1	2	3	4	5	U
UTU93904	0	418	0	215	1,290	0
UTU93905	0	623	0	1,870	44	0
UTU93906	0	645	0	1,602	312	0
UTU93907	0	136	0	2,413	0	0
UTU93910	0	0	0	666	190	0
UTU93911	0	106	0	1,811	0	0
UTU93913	0	361	0	1,875	0	0
UTU93914	0	230	0	0	49	0
UTU93915	0	809	0	0	629	0
UTU93916	0	508	0	0	783	0
UTU93917	0	416	0	0	1,350	0
UTU93918	0	313	0	0	1,184	0
UTU93919	0	200	0	0	1,402	0
UTU93920	0	72	0	0	1,207	0
UTU93921	0	2	0	2	136	24
UTU93922	0	197	3	0	1,664	5
UTU93923	0	559	0	1,275	0	0
UTU93924	0	1,252	0	1,308	0	0
UTU93925	0	128	0	0	816	1,441
UTU93926	0	985	0	0	852	0
UTU93927	0	1,834	0	0	401	0
UTU93928	0	518	0	0	1,701	0
UTU93929	0	186	0	3	1,893	0
UTU93930	0	818	0	0	582	34
UTU93931	0	61	0	136	894	0
UTU93933	0	374	0	0	1,427	0
UTU93934	0	124	0	0	1,036	0
UTU93935	0	47	0	731	0	0
UTU93936	0	0	0	222	1,710	0
UTU93937	0	5	0	636	719	0
UTU93938	0	97	0	1,540	4	0
UTU93939	0	129	0	1,907	0	0
UTU93946	0	178	0	0	77	0
UTU93947	0	519	0	0	1,167	0
UTU93948	0	112	0	0	46	0
UTU93959	0	83	0	1,354	0	0
UTU93962	0	61	0	0	19	0
UTU93963	0	19	0	0	61	0
UTU93965	0	250	0	379	0	0
UTU93966	0	29	0	250	0	0

Lease	1	2	3	4	5	U
UTU93968	0	972	0	0	1,208	20
UTU93980	0	113	63	1,388	185	314
UTU93982	0	0	0	1,144	0	0
UTU91945	0	12	138	0	0	12
UTU93981	0	65	3	945	145	12
UTU93979	0	196	93	0	182	249
UTU91055	0	0	0	769	0	190
UTU91334	0	139	2,158	0	0	0
UTU92311	0	0	0	198	0	5
UTU92312	0	0	0	112	13	222
UTU92313	0	0	0	151	0	47
UTU92314	53	0	0	751	0	681
UTU92315	5	0	0	207	0	1,814
UTU92316	205	0	0	0	0	485
UTU92328	700	436	0	112	0	11
UTU92330	1,240	68	0	0	0	0
UTU93250	904	0	0	582	0	335
UTU93251	547	0	0	148	0	544
UTU93252	156	0	0	255	0	216
UTU93611	0	1,270	0	0	0	0
UTU93612	0	1,484	385	21	0	29
UTU93723	0	0	0	0	1,870	368
UTU93724	0	0	0	0	2,131	108
UTU93732	0	0	0	0	1,456	245
UTU93734	0	0	0	0	1,830	84
UTU93735	0	0	0	0	114	114
UTU91304	0	52	1,160	0	0	847
UTU91305	0	533	7	0	0	2,077
UTU91306	0	16	750	0	0	1,484
UTU91340	0	81	0	0	0	0
UTU93433	0	0	0	359	0	54
UTU91308	0	953	53	0	0	810
UTU91310	0	0	0	120	0	0
UTU91936	0	0	0	0	0	74
UTU91952	0	0	0	0	0	40
UTU93260	0	0	0	0	0	852
Total	4,113 (2%)	35,217 (14%)	21,914 (9%)	68,823 (28%)	81,665 (34%)	31,841 (13%)

Notes: All acreages contained in the EA analysis were calculated using geographic information system (GIS) data sets for resources and the leases, which may differ slightly from the acreages contained in legal description here and. Difference in total

acres between the leases and acres analyzed in the EA can vary slightly due to geoprocessing operations where slivers of area are created when two or more data sets intersect. Any inaccuracies are negligible and do not change the overall impact analysis conclusions presented in this EA. There are no geologic units designated as PFYC 1 or U within the leases.

Potential development of all leases would result in up to 5,927.5 acres of surface disturbance (5,732 acres disturbance in the Vernal FO and 195.5 acres disturbance outside the Vernal FO) all of which could occur within areas of low to high or unknown potential for paleontological resources. Effects could result in the immediate physical loss of fossils and their contextual data. Ground disturbance could also subject fossils to long-term damage or destruction from erosion and create improved access to the public and increased visibility, potentially resulting in unauthorized collection or vandalism. Ground disturbance can also reveal scientifically significant fossils that would otherwise remain buried and unavailable for scientific study. Such fossils can be collected properly and curated into the museum collection of a qualified repository, making them available for scientific study and education.

Under the action alternatives, Alternative C would have 104,719 fewer acres of PFYC 3, 4, 5, or U, 22,594 fewer acres of PFYC 1 or 2, 226 fewer paleontological localities, and 4,380 fewer acres of potential ground disturbance than Alternative B.

Effects to paleontological resources would be mitigated under all action alternatives, and future development of the leases would be analyzed further through separate NEPA processes, as directed by regulations and current policy including FLPMA. For 191 of the 195 leases which have potential to contain paleontological resources (Table 59), the BLM applied Lease Notice UT-LN-72 (High Potential Paleontological Resources) and/or applied Stipulation UT-S-370 (Controlled Surface Use – Paleontology) (see Appendix B). Lease Notice UT-LN-72 states that there is high potential for paleontological resources and specifies that surveys will be required and modifications to the Surface Use Plan of Operations may be required to protect paleontological resources from surface disturbing activities in accordance with Section 6 of the lease terms and 43 CFR § 3101.12.

In addition, monitoring may be required during surface disturbing activities to identify and avoid destruction of currently unknown paleontological resources. Stipulation UT-S-370 requires that surveys and monitoring are completed where applicable; and encountered fossils must be evaluated. Thus, for 191 of the 195 leases, if an APD is filed, specific clearances would be conducted and incorporated into that future NEPA and APD approval process at the development stage. Additional mitigation measures such as BMPs, standard operating procedures (SOPs), and site-specific mitigation may be applied at the APD stage as COAs. These would include, for example, if during operations within the leases paleontological resources are discovered they would be protected pursuant to the standard discovery requirements, where the lessee must cease any operations that would result in the destruction of such specimens and contact the BLM Authorized Officer. Scientifically significant paleontological resources that may be discovered through surveys or monitoring would be collected by a qualified paleontologist and curated at an appropriate repository (43 CFR Part 49). Additionally, the BLM applied stipulations to many of the leases that would limit or eliminate surface disturbance in particular areas including UT-S-123 for Riparian, Floodplains, and Public Water Reserves, UT-S-96, UT-S-99, UT-S-100 for Fragile Soils/Slopes (see Appendix B.1) and these would also provide protection for geologic exposures along drainages and on slopes that may have paleontological potential. With

consideration of these protections, potential effects on paleontological resources of scientific interest would be avoided or mitigated.

The Reasonably Foreseeable Trends and Planned Actions Scenario described in Section 3.3 provides an overview of areas influenced by these actions. The risk of impacts on paleontological resources from reasonably foreseeable trends and planned actions would depend on the locations of disturbance relative to PFYC class. When the potential development of these leases is combined with these other actions, the combined effects to paleontological resources are anticipated to be minimal due to the requirements for resource assessments and mitigation combined with the low percent of total acreage that could be impacted by ground disturbing activities or increases in human use of areas.

AIB-15 Public Health and Safety

How would potential development of the leases contribute risks to public health and safety concerns?

Within the 13 counties in which the leases are located, there are 14,022 active wells of all well types across all land jurisdictions (UDOGM, 2024). This level of development has resulted in the following public health and safety-related risks: occasional fire starts; spills of hazardous materials, hydrocarbons, produced water, or hydraulic fracturing fluid (see Appendix H) and corresponding potential contamination of air, soil, or water; exposure to naturally occurring radioactive material (NORM) in drill cuttings or produced water (see Appendix H); traffic congestion and collisions from commercial vehicles and heavy use, especially along Highway 40; infrequent industrial accidents; presence of hydrogen sulfide (H₂S); or increased levels of fugitive dust (PM₁₀ and PM_{2.5}), other criteria air pollutants (CAPs), volatile organic compounds (VOCs), hazardous air pollutants (HAPs), and greenhouse gases (GHGs).. See the air quality analysis in Section 3.5.1 (Air Quality) for projected levels of CAPs and HAPs, their effects on air quality, and the air quality notices and stipulations that may impact human health and safety. See the greenhouse gas analysis in Section 3.5.2 (Greenhouse Gas Emissions) for projected levels of GHGs, their effects on climate that may impact human health and safety. Human health impacts from these air pollutants are incorporated by reference from the BLM's Annual Air Monitoring Report (BLM, 2024).

HAPs are known or suspected to cause cancer or other serious health effects, such as compromises to immune and reproductive systems, birth defects, developmental disorders, or adverse environmental effects resulting from either chronic (long-term) and/or acute (short-term) exposure, and/or adverse environmental effects. Breathing ground-level ozone (O₃) can trigger a variety of health problems, including coughing and sore or scratchy throat; difficulty breathing deeply and vigorously and pain when taking deep breaths; inflammation and damage to the airways; increased susceptibility to lung infections; aggravation of lung diseases such as asthma, emphysema, and chronic bronchitis; and an increase in the frequency of asthma attacks. Some of these effects have been found even in healthy people, but effects are more serious in people with lung diseases such as asthma. Particulate matter, also known as particle pollution or PM, is a complex mixture of extremely small particles and liquid droplets. Smaller particles (PM_{2.5} or smaller) are associated with more negative health effects, including respiratory and

cardiovascular problems, because they can become more deeply embedded in the lungs and may even get into the bloodstream.

The following sources provide additional information on air pollution health effects from the six CAPs and HAPs:

- Ozone (EPA, 2023a)
- Particulates (EPA, 2023b)
- Nitrogen dioxide (EPA, 2023c)
- Carbon monoxide (EPA, 2023d)
- Lead (EPA, 2023)
- Sulfur dioxide (EPA, 2023f)
- Hazardous air pollutants (HAP) (EPA, 2023g)

The air quality analysis in Section 3.5.1 estimates the risk of cancer from HAPs and the risk of other health impacts based on exposure to CAPs. In addition to HAP and CAP levels, economic or social indicators can also influence the general health risks of a population, such as poverty status, educational attainment, or language proficiency.

The human health impacts of four notable greenhouse gases (carbon dioxide, methane, nitrous oxide, and chlorofluorocarbons) are discussed in the BLM's Air Monitoring Report. The effects of constant direct exposure of the human body to these gases appears negligible but increasing concentration of these gases with time are the key cause of various human ailments. These effects are most noticeable in the respiratory and cardiovascular systems but can also affect the digestive, reproductive, immune, and central nervous systems. The BLM's Annual GHG Report (BLM, 2024) also discusses the effects of public health and safety of greenhouse gases and is incorporated by reference. Key weather and climate drivers of health impacts include increasingly frequent, intense, and longer lasting extreme heat, which worsen drought, wildfire, and air pollution risks; increasingly frequent extreme precipitation, intense storms, and changes in precipitation patterns that lead to drought and ecosystem changes; and rising sea levels that intensify coastal flooding and storm surges. These climate-related events can lead to heat-related illnesses, mental health issues, and can facilitate the spread of diseases borne by vectors such as fleas, ticks, and mosquitoes.

Human health risk assessments cannot be performed until project-specific details are known so that frequency, timing, and levels of contact with potential stressors may be identified (EPA, 2023h). However, each of the reasonably foreseeable environmental trends and planned actions have been, or will be, subject to relevant rules and regulations regarding public health and safety. Ongoing and potential development would continue to present aggregate risks to human health as detailed above. When wells reach the end of their useful life and are properly plugged and reclaimed, they would no longer contribute to health and safety effects; however, depending on the level and duration of individual's exposure during well operation, some of the public health effects from air pollution may endure beyond the life of the wells (e.g., chronic respiratory problems such as asthma).

When authorizing development, federal and state laws, regulations, and policy are applied to reduce effects or respond to incidents. These include the following:

- Federal, state, county, and municipal fire managers shall coordinate fire response and mitigation.
- Developers who install and operate oil and gas wells, facilities, and pipelines are responsible for complying with the applicable laws and regulations governing hazardous materials and for following all hazardous spill response plans and stipulations. The Utah Division of Oil, Gas and Mining requires similar spill response measures after release of hydrocarbons, produced water, or hydraulic fracturing fluids.
- All well pads, vehicles, and other workplaces must comply with worker safety laws as stipulated by the Occupational Safety and Health Administration (OSHA).
- Vehicular traffic and pipelines are regulated according to safety laws as stipulated by the Department of Transportation.

43 CFR § 3176 provides the requirements and standards for conducting oil and gas operations in an environment known to or expected to contain H₂S. Compliance with this Order will protect public health and safety and those personnel essential to maintaining control of the well.

Hazardous materials are not known to exist on any lease. Hazardous materials associated with oil and gas operations, if not handled properly, have the potential to be spilled at the lease/drill site and would be handled during that stage of development. Such materials could include methanol, diesel fuel, unrefined petroleum, produced water, and acid. Spills during operation would be contained, reported, and cleaned up by the operator as written in the Spill Prevention, Control, and Countermeasure (SPCC) rule for wells.

See AIB-25 for further information regarding potential surface and groundwater effects and relevant regulations, stipulations, and lease notices offering protections to groundwater and surface water quality. Lease notices and stipulations for water resource would result in protection of water quality by minimizing sediment inputs and other water quality contaminants. Risks from hazardous or solid wastes would be mitigated by BMPs, SOPs, and site-specific COAs. No Lease Stipulations or Notices would be required directly for Human Health and Safety.

AIB-16 Quality of Life

How would potential development of the leases affect the quality of life of the American people residing in the thirteen-county planning area?

BLM IM 2024-040 directs the BLM to follow the principles and practices in the *Desk Guide for Socioeconomic Aspects of NEPA and Planning* (BLM, 2024). The Guide addresses nine socioeconomic values, all of which can be considered broadly as addressing quality of life issues. The recently released DOI Handbook of NEPA Implementing Procedures (BLM, 2025) includes Appendix 3 that provides implementation guidance to DOI bureaus. Section 1.2 of the DOI NEPA Procedures set forth several considerations the Responsible Official may weigh when determining the “significance” of a proposed action.

One of the considerations includes the effects on the quality of life of the American people. The Appendix recommends considering six items which may affect quality of life. The discussion

which follows applies to the socioeconomic analysis area, as this area contains the populations most likely to be impacted by the proposed action and alternatives. The BLM believes that a decision which improves one aspect of quality of life for one individual or group may have a negative impact on another individual or group with different values or concerns. The BLM also believes that the described impacts would likely occur at some level to larger geographies, including state, regional, and national. These impacts could vary in type, direction (favorable or unfavorable), and intensity depending on the values and concerns of individuals and groups that may be affected differently. Quality of life factors considered:

- *Access to Products:* Development of all or some of the leases could enhance opportunities to consume, use, possess, or purchase products extracted or produced on BLM lands, such as minerals, by commercial or other users. There are no known vegetative materials that occur within the Proposed Action locations that could be used by subsistence, commercial or other users. Products (such as meat) deriving from livestock grazing activities in the project location would not be changed because according to the analysis in AIB-8 there will be no loss of AUMs. Similarly, there would be no loss of access to solid minerals or fuel wood. See AIB-6 and AIB-28 for further discussion. Development of leases likely will lead to increases in labor income. This in turn provides access to products through increased purchasing power. See AIB-19 for further discussion.
- *Visitor experience:* Expansion of the oil and gas industry may be perceived as having a negative effect on quality-of-life considerations for people who value undeveloped landscapes, opportunities for isolation, and activities such as wildlife viewing and other forms of recreation See AIB-17 and AIB-19 for further discussion.
- *Public Services:* Development of all or some of the leases could lead to improvements in public services through the generation of mineral lease payments to local governments. See AIB-19 for further discussion.
- *Way of Life and Culture for Native Americans:* See AIB-12 and Appendix F for discussion of this issue.
- *Passive Use of Ecosystems:* Passive use of ecosystems is a change in resources which people value for their simple existence (cultural, geological, paleontological, biological, aquatic, or aesthetic) or represent a long-term change in resources and/or ecosystem resiliency, as in changes to climate, water, or fire behavior. For some, lease development may create a perception of negative impacts to ecosystems. For example, people who value the aesthetics of undeveloped landscapes may feel that this aspect of their quality of life is impacted. The current document discusses many of the resources associated with ecosystems and ecosystem services. BLM imposes stipulations and lease notices on parcels offered for lease, designed to provide protection of ecosystems and other resources. For more discussion, see Section 3.5.1 (Air Quality), Section 3.5.3 (Greater sage-grouse), and the following AIBs in Appendix E (Invasive Species, Migratory Birds, Paleontological Resources, Riparian, Wetlands, Floodplains, and Aquatic Species, Soils, Soundscapes, Threatened, Endangered, and Proposed Species, Utah BLM Sensitive Species, Vegetation Communities, Visual Resources, Water Resources, Wildlife: Big Game, Woodlands and Forest Resources).
- *Education and Knowledge:* Development of all or some of the leases could provide incentives to operators to provide training conducive to employment in the development

and production phases of the lease operation. Fiscal benefits to counties, such as increases in property taxes, could benefit local schools.

Additionally, the total landscape-level surface disturbance associated with reasonably foreseeable environmental trends and planned actions would include activities that generate increased human activity, traffic, noise, dust, odor, light pollution, and visual effects. These activities have the potential to affect quality of life of any existing nearby residences or facilities, depending on the intensity of development activities and proximity of structures to a given lease. Altogether, there are eighty-seven leases in or partially within twenty miles of a municipal boundary. Five of these leases are in, partially in, or adjacent to a municipal boundary. Six of these leases are within one mile of a municipal boundary. Fifteen of these leases are within one to five miles of a municipal boundary, with the remaining leases five to twenty miles from a municipal boundary. While the majority of these impacts to any significantly proximal residences or facilities would be short term and cease during operations (e.g., increased human activity, traffic, noise, dust, and odor during drilling and completion phases), residences may continue to experience long-term visual or other impacts that have potential to affect quality of life if they are located in areas in which oil and gas development is not currently nearby or visible.

AIB-17 Recreation

How would potential development of the leases affect recreation opportunities and activities?

Recreational opportunities and activities within the leases consist mainly of dispersed types of recreation such as operation of Off Highway Vehicles (OHVs), camping, equestrian riding, hunting, target shooting, water-based activities and wildlife viewing. There are seven designated Special Recreation Management Areas (SRMAs) located within the leases which include: White River, Yuba, Nine Mile, Cameo Cliffs, South Moab, Canyon Rims and Labyrinth Rims/Gemini Bridges. The leases encompass 2,172 acres or 76% of the White River SRMA, 1,763 acres or 82% of the Yuba Reservoir SRMA, 1,322 acres or 3% of the Nine Mile SRMA, 12 acres or .007% of the Cameo Cliffs SRMA, 878 acres or .1% of the South Moab SRMA, 748 acres of the Canyon Rims SRMA and 15, 244 acres or 5 of the Labyrinth Rims/Gemini Bridges SRMA.

The majority of the SRMAs are within areas that require NSO, have a timing limitation or controlled surface use stipulation to reduce impacts to other resources. These limitations will reduce impacts to the recreation experience for which the SRMA was designated. The Yuba Reservoir SRMA does not have any related stipulations and recreation opportunities and experiences may be reduced or diminished if the lease is ever developed.

Per the Surface Operating Standards and Guideline for Oil and Gas Exploration and Development - The Gold Book (BLM, 2007), temporary or longer-term impacts from the Proposed Action, such as road upgrades, increased vehicle traffic, construction, noise, dust, and/or surface disturbances, would be localized and would not substantially impact recreational access and dispersed recreation opportunities within the leases as alternative travel routes and other public lands would still be available for dispersed recreational opportunities in the vicinity. There are no standard lease stipulations related to recreation within the leases because they are

not impacting any designated recreation sites. The White River SRMA stipulation UT-S-47, which is an NSO requirement for a large portion of the SRMA, will apply as well as stipulation UT-S-376, which is for controlled surface use for Canyon Rims, Labyrinth Rims/Gemini Bridges and South Moab SRMAs, and UT-S-375 which is NSO for Canyon Rims SRMA.

AIB-18 Soils

How would potential development of the leases affect sensitive soils?

Lease development impacts soils through soil disturbance related to drill pads of sufficient sizes and access road construction for equipment for drilling and operations of the wells. The amount of disturbance is estimated as shown in the foreseeable development presented in Section 3.2.1. Soil layer mixing and soil movement disrupts the existing structure of the soil horizons to the depth of disturbance. Soil forming processes are halted, and compaction of underlying horizons and loss or degradation of soil microbes may occur. These issues are compounded when fragile soils are present. Fragile soils are soil types that are easily damaged by use or disturbance and/or are those that are difficult to reclaim to pre-disturbance conditions. Additionally, fragile soils in Utah's semi-arid and arid environments, may include those that have components that can be characterized as susceptible to compaction or other mechanical damage and/or are highly erodible when disturbed. Surface disturbance of fragile and/or occurring on increased slope profiles has the potential to affect soil stability and may lead to accelerated soil erosion and potential sedimentation to proximal water bodies during saturated and runoff conditions within the soil profile.

Soils can be rated based on their susceptibility to degradation in the "Fragile Soil Index" interpretation. Fragile soils are those that are most vulnerable to degradation tend to be highly susceptible to erosion and can have a low capacity to recover after degradation has occurred (low resilience). Fragile soils are generally characterized by a low content of organic matter, low aggregate stability, and weak soil structure. They are generally located on sloping ground, have sparse plant cover, and tend to be in arid or semiarid regions. The index can be used for conservation and watershed planning to assist in identifying soils and areas highly vulnerable to degradation.

Depending on inherent soil characteristics and the climate, soils can vary from highly resistant, or stable, to vulnerable and extremely sensitive to degradation. Under stress, fragile soils can degrade to a new altered state, which may be less favorable or unfavorable for plant growth and less capable of performing soil functions. To assess the fragility of the soil, indicators of vulnerability to degradation processes are used. They include organic matter, soil structure, rooting depth, vegetative cover, slope, and aridity.

Protective measures for soil resources would be implemented at the APD stage to minimize erosion, runoff and run on of water, soil loss, and disturbance to soils in the lease areas. The stipulations and lease notices have been applied to specific leases are presented below by avoiding sloped areas with higher potential for erosion and soil loss from disturbed areas. Other site-specific erosion control measures to protect soils, minimize runoff, and soil loss will be applied at the APD stage.

The affected environment encompasses parts of the following soil survey areas.

Table 60 Soil Survey Areas

Rating	Acres
Fragile	14626
Moderately fragile	6077
Highly fragile	20703
Slightly fragile	32
Null or Not Rated	221682

Additionally, soils mapped as “Prime Soils of Statewide Significance” have been reviewed and leases with these soils have UT-LN-121 applied, refer to individual lease list in Appendix B for where present. These soil units are to be avoided with no surface occupancy until cleared by United States Department of Agriculture, Natural Resources Conservation Service (NRCS), as described in Public Law 97-98.

Offices have varying stipulations and lease notices to protect soils from accelerated erosion and soil loss within sloped areas, fragile soils, saline soils with controlled use surface and no surface occupancy restrictions. For specific lease stipulations applied to each lease refer to Appendix B.

AIB-19 Socioeconomics

How would potential development of the leases affect social and economic conditions?

The recently released DOI Handbook of NEPA Implementing Procedures (BLM, 2025) includes Appendix 3 that provides implementation guidance to DOI bureaus. Section 1.2 of the DOI NEPA Procedures set forth several considerations the Responsible Official may weigh when determining the “significance” of a proposed action. One of the considerations includes the degree to which the action, including any changes to the natural and physical environment, would affect economic activity.

The study area includes thirteen counties within seven BLM FOs in the State of Utah, which encompass 2,866,117 acres. Because socioeconomic (SE) data are typically available at the county level, county boundaries are used to define the SE study area. Data were obtained from the U.S. Department of Labor, the Bureau of Labor Statistics, local area unemployment statistics, the U.S. Department of Commerce, and the Census Bureau, as compiled by the Headwaters Economics Socioeconomic Profiles Tool developed for the BLM (Headwaters Economics, 2025).

Of the total study area, 15,391,887 acres – 64.7 percent of the total – are federally owned lands, and 10,457,474 of those acres are managed by BLM. 3,123,803 acres within the study area are privately owned, 276,518 are Tribal lands, and 3,192,451 are owned by state, county, city, or other non-federal agencies. The total population in the study area was 223,155 in 2022, representing an increase of 26.0 percent from 2010 to 2022. The largest contributor to this change in total population was natural change. The number of employed workers in the study area in 2022 was 150,240. In 2024, the average annual unemployment rate was 3.4 percent. In 2023, 82 percent of workers aged 16 and over within the study area worked in their county of

residence. Per capita income in the study area in 2022 was \$84,230, but this ranged from a low of \$38,130 (San Juan County) to a high of \$242,267 (Summit County).

In 2023, the total number of families living in poverty, as defined by the U.S. Census Bureau, was 8.1 percent of the study area population. Out of all persons living within the study area in 2023, 18.0 percent self-identified as being a member of a minority group. Of those, 4.9 percent self-identified as American Indian or Alaskan Native. The total number of housing units was 99,584, of which 75.3 percent were occupied, and 16.4 percent were seasonal, recreational, or occasionally occupied properties. Of those living within the study area aged 25 or older, 28.4 percent had earned a bachelor's degree or higher as of 2023. In 2022, there were approximately 29,832 total jobs in non-services industries in the study area. In the same year there were approximately 99,906 jobs in services related industries, and there were approximately 21,087 jobs in the government sector. This total includes federal, state, county, and local government jobs. In 2022, the industries employing the largest numbers of employees in the study area were: government (primarily state, county, and local government); retail trade, and accommodation and food services.

Within the study area, the average annual wage for all reported jobs was \$55,971 in 2024. The highest paying industries, on average, were information, mining and financial activities. Non-labor income, which includes dividends, interest payments, rent, age-related transfer payments, hardship-related payments, and other transfer payments—can be important in local economies. Where non-labor income is a relatively high percentage of all income, it is likely that there are a higher number of retirees and/or families receiving assistance, in comparison to other regions. In 2022, total non-labor income within the study area represented 46.3 per cent of all income. The highest category of non-labor income was dividends, interest, and rent, at 33.3 per cent of total study area income. In fiscal year 2024, the Department of Interior, through the Payments In Lieu of Taxes (PILT) program, paid the study area counties \$22,077,363. (DOI, 2025)

The only direct impact of issuing oil and gas leases on quantifiable market socioeconomic values within the analysis area would be generation of revenue from the lease sale, as the State of Utah retains approximately 49 percent of the proceeds. Should all or some of the leases prove productive, such production would generate additional revenues from royalties. Subsequent oil and gas exploration, development and production could affect the local economy in terms of additional jobs, income and tax revenues. Subsequent oil and gas exploration and development activities could include road and drill pad construction, which could be contracted to local contractors. Wells would typically be drilled over a period of time and not at the same time. Local businesses may realize increased revenue from the purchase of supplies, meals, rooms, etc. Local trucking and delivery companies may also benefit economically by transporting supplies, building materials and oil products.

There are many uncertainties in estimating the economic impacts of mineral exploration and development. Unknowns include whether the lease will be developed, and what production might result. Factors affecting the costs of exploration, drilling and extraction include type of well (horizontal vs. vertical), geology, well depth, availability and cost of labor and equipment,

and, perhaps above all, commodity prices¹⁰. Given these factors, estimating quantitatively the overall impact from oil and gas exploration and production from the current lease is extremely speculative. Nonetheless, it is possible to get reasonably reliable estimates of marginal impacts, assuming a well was drilled in the relatively near future.

The following analyses use the IMPLAN (IMPact Analysis for PLANning) input-output model to estimate the impacts from \$1 million in spending for a number of sectors within the oil and gas industry. IMPLAN is strictly linear, so a doubling in spending, for example, would lead to a doubling of impacts. Since we cannot estimate with any degree of certainty future costs, for the reasons discussed, earlier, the marginal spending impacts in 2025 dollars is the most reliable available estimate of economic effects. The described effects are for the multi-county analysis area and could differ if calculated on a county-specific basis.

The model provides estimates of how a specific economic activity translates into jobs and income for the region. It includes the ripple effect (also called the “multiplier effect”) of changes in economic sectors that may not be directly impacted by management actions but are linked to industries that are directly impacted. In IMPLAN, these ripple effects are termed indirect impacts (for changes in industries that sell inputs to the industries that are directly impacted) and induced impacts (for changes in household spending as household income increases or decreases due to the changes in production). The IMPLAN sectors relevant to these estimates are (1) drilling oil and gas wells, (2) oil and gas extraction, and (3) support activities for oil and gas operations. Table 61 through Table 63 provide the results for \$1 million in spending for each of these three sectors.

Table 61: Economic Impact of \$1 million spending on oil well drilling (\$2025)

Impact	Employment ¹¹	Labor Income	Value Added	Output
Direct	5.8	\$645,760	\$614,628	\$1,000,000
Indirect	1.0	\$56,878	\$106,901	\$222,634
Induced	1.3	\$61,316	\$145,185	\$233,084
Total	8.1	\$763,955	\$866,713	\$1,455,718

Table 62: Economic Impact of \$1 million spending on oil extraction (\$2025)

Impact	Employment	Labor Income	Value Added	Output
Direct	1.4	\$106,359	\$420,549	\$1,000,000
Indirect	1.0	\$72,440	\$133,802	\$273,557

¹⁰ Drilling costs vary widely, depending on the factors outlined in this section. Estimates for the cost of drilling an “average” oil well in the U.S. vary from \$3 to \$6 million dollars but can cost much more (Quora 2025).

¹¹ IMPLAN employment is an Industry-specific mix of full-time, part-time, and seasonal employment. It is an annual average that accounts for seasonality.

Induced	0.3	\$16,004	\$37,891	\$60,839
Total	2.7	\$194,802	\$592,242	\$1,334,397

Table 63: Economic Impact of \$1 million spending on support activities (\$2025)

Impact	Employment	Labor Income	Value Added	Output
Direct	3.5	\$300,595	\$743,821	\$1,000,000
Indirect	0.8	\$37,345	\$68,201	\$165,667
Induced	0.6	\$29,431	\$69,686	\$111,876
Total	4.9	\$367,371	\$881,709	\$1,277,543

Oil production from federal lands is subject to a 12.5 per cent royalty payment to the federal government. For these 195 leases, the BLM has received \$3.56 million in royalty payments. Approximately 49 percent of that amount is provided to the state government, which then provides a portion to the counties. In 2024, Utah received a total of \$93.74 million in such payments from all leases in Utah (DOI, 2024). Additionally, for these 195 leases, approximately \$13.14 million was paid in bonus bids at the time the leases were sold. These revenues are split between the State and the federal government. Fiscal impacts from affirming these leases could result from annual rent fees (for 10 years regardless of activity on a lease), royalties (if and when production occurs) and property taxes on oil and gas infrastructure. These may provide income to county governments for schools and other expenditures. The Proposed Action would not be expected to induce substantial growth or concentration of population, displace many people, cause a substantial reduction in employment, reduce wage and salary earnings, cause a substantial net increase in county expenditures, or create a substantial demand for public services. With a reduction in output from the oil and gas sector, converse effects would be expected to occur. Increased activity in oil and gas development and operations could have an impact on the demand for community services as well as having some effect on available housing and demand for goods and services within the affected counties.

Expansion of the oil and gas industry may be perceived as having a negative effect on quality-of-life considerations for people who value undeveloped landscapes, opportunities for isolation, and activities such as wildlife viewing, other forms of recreation, or rangeland management. The total landscape-level surface disturbance associated with reasonably foreseeable environmental trends and planned actions would include activities that generate increased human activity, traffic, noise, dust, odor, light pollution, and visual effects. These activities have the potential to affect quality of life of any existing nearby residences or facilities, depending on the intensity of development activities and proximity of structures to a given lease. While the majority of these impacts to any significantly proximal residences or facilities would be short term and cease during operations (e.g., increased human activity, traffic, noise, dust, and odor during drilling and completion phases), residences may continue to experience long-term visual or other impacts

that have potential to affect quality of life if they are located in areas in which oil and gas development is not currently nearby or visible.

AIB-20 Soundscapes

How would noise associated with potential development of the leases affect the local soundscape?

The acoustic environment of a given area is an important consideration in understanding environmental and social impacts from potential lease development. Elevated noise levels can disrupt wildlife behavior and communication, as well as diminish human experiences of natural quiet—both of which are important considerations when evaluating environmental thresholds for sound. The EPA has identified a 24-hour environmental noise exposure level of 70 A-weighted decibels (dBA) to prevent any measurable hearing loss over a person’s lifetime. Likewise, levels of 55 decibels outdoors and 45 decibels indoors are identified as preventing activity interference and annoyance. The levels are not single event, or “peak” levels. Instead, they represent averages of acoustic energy over periods of time such as 8 hours or 24 hours, or over longer periods of time such as years. The 55 dBA threshold is generally recognized as a level below which no public health or safety risks to the general population would be anticipated to occur. In rural areas, where the leases are located, ambient sound levels are typically 30 to 40 dBA (EPA, 1974). As a basis for comparison, the sound level of a normal conversation between two people standing 5 feet apart is 60 dBA. Highway traffic noise typically ranges from 70 to 80 dBA at a distance of 50 feet from the highway (USDOT, 2003). Typical noise levels associated with oil and gas activity are presented in Table 64.

Table 64 Noise Levels Associated with Oil and Gas Activity

Noise Source	Sound Level at 50 Feet (dBA)
Well drilling ¹	83
Production operations (Pumping) ²	82

Source: (BLM, 2003)

Note: Sound levels are based on highest measured sound levels and are normalized to a distance of 50 feet from the source.

It is estimated that noise levels could be approximately 83 dBA during the drilling phase. The Inverse Square Law, which states that noise decreases by 6 dBA with every doubling of distance from the source, is often used to estimate noise impacts at different distances from a specific source. As such, if the noise level is 83 dBA at 50 feet from drilling operations, then the noise level would be 77 dBA at 100 feet and 71 dBA at 200 feet. At approximately 1,250 feet (0.24 miles) from the drilling, sound levels will drop below the EPA activity interference and annoyance threshold of 55 dBA. However, the actual noise levels experienced by the receptor will depend on the distance between the receptor and the equipment, vegetation (e.g. trees), meteorological conditions (e.g. wind speed and directions, temperature, humidity), the type of equipment used, etc., so sound levels could vary slightly.

A review of other noise sources within a quarter mile of the leases shows that common noise sources within this rural area are expected to be from livestock, oil and gas development activities, recreation, vehicular traffic, and wildlife. There are several leases within a quarter mile of sensitive noise receptors, including:

- UTU93014 – near Rockland Ranch
- UTU93012 – near Wilson Arch Resort Community
- UTU93250 – near homes in Fremont, Utah
- UTU91058 – near homes in Glenwood, Utah
- UTU92312 – near homes in Aurora, Utah
- UTU91304 – near homes in Wellington, Utah
- UTU93250 – near Yuba State Park
- Several leases in Duchesne and Uintah Counties near homes or ranches.

The BLM expects potential development of the leases to generate noise above ambient levels for the area during drilling and completion of the well. Noise impacts during these phases of development would be short-term. As discussed, development, drilling, including spudding and completion, is estimated to take 30-60 days. At this stage it is not possible to know if noise from lease development will adversely impact the identified receptors because it is unknown where development would occur, or even if it would occur on lease (horizontal drilling into the lease). At the APD stage the BLM will have site specific information to determine the impact and can implement conditions of approval if there it is determined the impact may be adverse.

One can also use the deviation from natural background sound levels to identify reductions in listening area and alerting distance for wildlife. Reduction in listening area quantifies the loss of hearing ability resulting from an increase in ambient noise level. Under natural ambient conditions, a sound is audible within a certain area around an animal. If the ambient level is increased due to a noise event, the area in which the sound is audible decreases. Table 65 shows the relationship between increased sound level and listening area reduction. Wildlife are impacted by their failure to hear natural sounds that would have been audible in the absence of artificial noise (e.g., a mouse misses the footfall of a coyote). Reductions in listening area and alerting distance capture these types of impacts.

Table 65 Reduction in Listening Area Due to Increase from Background Sound Levels

Increase from Background	3 dBA	6 dBA	10 dBA	20 dBA
Reduction in Listening Area	50%	75%	90%	99%

Reduction in Alerting Distance	30%	50%	70%	90%

Source: (NPS, 2010)

Overall, increases to the ambient sound levels where leases are located would occur from well construction and well production operations. In addition, during final abandonment of the well and reclamation, there would be temporarily increased noise levels associated with operation of earth-moving construction equipment. Some leases are located near sensitive receptors but it's not possible at this stage to determine if there will be adverse impacts to the soundscape because it is not known where operators would drill into the lease or if they would implement sound reduction measures. At the APD stage, site specific information can be used to evaluate potential soundscape impacts and impose conditions of approval if the impacts are determined to be adverse.

AIB-21 Threatened, Endangered, and Proposed Species

How would potential development of the leases affect federally listed and proposed species or their habitats?

Aquatic Animal Species

There are four federally listed fish in the Upper Colorado River Drainage Basin (Colorado pikeminnow [*Ptychocheilus lucius*] (endangered), razorback sucker [*Xyrauchen texanus*] (endangered), bonytail [*Gila elegans*] (endangered), and humpback chub [*Gila cypha*] (threatened)). Fourteen lease sales from the Vernal FO overlap with Critical Habitat for these species (UTU93685, UTU93935, UTU93921, UTU93922, UTU93695, UTU93694, UTU93656, UTU93659, UTU93658, UTU93657, UTU92684, UTU92695, UTU92677, UTU91068).

Lease notices and stipulations are applied to all leases within the Colorado River Watershed as listed in Appendix B to inform the lessee that they are in the watershed of these listed fish. Stipulations include avoidance and minimization measures including surveys, monitoring, managing water production, avoiding loss or disturbance of riparian habitat, using directional drilling to reduce surface disturbance, conducting watershed analysis in designated critical habitat, no drilling within 100-year floodplains of rivers or tributaries, and flash flood risk analysis.

Water depletions from any portion of the Upper Colorado River Drainage above Lake Powell are considered to adversely affect critical habitat. Formal consultation with USFWS is required for all depletions greater than 100-acre feet and all depletion amounts must be reported to BLM. The potential development of leases within the Upper Colorado River Basin could result in water usage of up to 1,980,133 bbl. At this stage of analysis, the source water cannot be determined and will be addressed by site specific NEPA at the APD stage. All leases within the Vernal, Moab, Monticello, and Price FOs are within the Upper Colorado River Watershed as well as leases UTU93250 and UTU93251 in Richfield FO and UTU93979 and UTU93981 in Salt Lake FO.

With these notices and stipulations in place for threatened and endangered fish, along with stipulations providing riparian buffers as described in AIB-17 Aquatic Habitats and Species and additional buffers in sections of the Green and White River as described in AIB-1 Areas of Critical Environmental Concern and AIB-7 BLM Natural Areas and Lands with Wilderness Characteristics, sufficient protections are provided such that more detailed analysis is not warranted.

Terrestrial Vertebrate Species

Black-footed ferret (*Mustela nigripes*) – Endangered / Nonessential Experimental Population

Leases UTU91946, UTU91948, UTU92684, UTU92685, UTU92695, UTU92696, UTU92697, UTU92698, UTU92700, UTU92701, UTU92702, UTU92703, UTU92704, UTU92708, UTU92709, UTU92710, UTU92711, UTU92712, UTU92713, UTU92714, UTU93646, UTU93650, UTU93655, UTU93684, UTU93914, UTU93915, UTU93916, UTU93917, UTU93918, UTU93919, UTU93925, UTU93926, UTU93927, UTU93928, UTU93929, UTU93930, UTU93931, UTU93933, UTU93934, UTU93962, UTU93963, UTU93968 intersect the USFWS AOI for the black-footed ferret. Of those all but UTU93684 and UTU93931 intersect the Management Area (UDWR, 2007) for the species. Of those leases that intersect the Management, nineteen leases intersect mapped white-tailed prairie dog colonies, which serve as suitable habitat for the black-footed ferret.

Table 66: Estimated disturbance to white-tailed prairie dog colonies & black-footed ferret habitat within the black-footed ferret Management Area

Lease	Prairie Dog Colony Acres in Lease	Estimated acres prairie dog colony disturbed in lease
UTU92685	149.0	0.5
UTU92697	256.9	3.4
UTU92698	167.3	2.2
UTU92702	311.7	13.6
UTU92703	101.1	4.4
UTU92709	16.4	0.7
UTU92713	77.0	3.4
UTU93914	242.1	10.6
UTU93915	263.6	11.5
UTU93916	140.8	1.8
UTU93925	644.7	28.2
UTU93926	1,324.4	57.9
UTU93927	2,026.1	87.1
UTU93928	383.6	16.8
UTU93929	38.7	1.7
UTU93930	567.8	24.8
UTU93933	6.2	0.3
UTU93962	55.2	2.4
UTU93968	1,171.0	51.2
outside of leases	31,985.0	
Grand Total	39,928.8	322.6

Using the disturbance assumptions in Section 3.2.1 and assuming random placement of disturbance relative to the mapped white-tailed prairie dog colonies, development of the leases would impact 322.6 acres of suitable habitat for the black-footed ferret. This represents 0.8% of the mapped white-tailed prairie dog colonies within the Management Area.

The implementation of the associated stipulation (UT-S-299) and notice (T&E-02) would further reduce impacts to potential habitat for the species

Canada lynx (*Lynx canadensis*) - Threatened

Lease UTU93433 intersects the end of the USFWS AOI for the Canada lynx. The extrapolated Olson and Squires model to Northern Utah presented in the Spatial Framework for the Conservation of Canada Lynx Habitat in the Western U.S. and Associated Management Tiers suggest habitat suitability is low within ½ mile of the lease. Given the low-quality habitat and lack of known occupancy in Utah it is unlikely that future lease development would impact individuals or habitat upon which the Canada lynx depends. Under the proposed action, the implementation of the Lease Notice T&E-10 – Canada lynx would further reduce impacts to potential habitat for the species. Therefore, a detailed analysis of the impacts to the Canada lynx is not warranted.

Mexican spotted owl (*Strix occidentalis lucida*) - Threatened

Leases UTU91060, UTU91308, UTU91310, UTU91311, UTU91932, UTU91933, UTU91936, UTU91949, UTU91950, UTU91952, UTU92314, UTU92315, UTU92316, UTU92670, UTU93004, UTU93005, UTU93008, UTU93010, UTU93012, UTU93013, UTU93014, UTU93250, UTU93251, UTU93260, UTU93651, UTU93656, UTU93657, UTU93658, UTU93659, UTU93660, UTU93661, UTU93662, UTU93663, UTU93664, UTU93665, UTU93666, UTU93668, UTU93669, UTU93670, UTU93671, UTU93672, UTU93673, UTU93675, UTU93676, UTU93679, UTU93681, UTU93684, UTU93686, UTU93687, UTU93688, UTU93692, UTU93696, UTU93697, UTU93718, UTU93723, UTU93725, UTU93732, UTU93734, UTU93881, UTU93882, UTU93899, UTU93900, UTU93901, UTU93902, UTU93903, UTU93904, UTU93905, UTU93906, UTU93907, UTU93910, UTU93911, UTU93913, UTU93923, UTU93924, UTU93937, UTU93938, UTU93939, UTU93959, UTU93965, UTU93966, UTU93980, UTU93981, UTU93982, and UTU94135 intersect the USFWS AOI for the Mexican spotted owl and fall partially within the 1997 Willey-Spotskey Mexican Spotted Owl Habitat Model. (Willey & Spotskey).

The modeled habitat within 0.5 mile of Leases UTU91060, UTU91308, UTU91932, UTU91933, UTU91936, UTU91952, UTU92314, UTU92315, UTU92316, UTU92670, UTU93250, UTU93251, UTU93260, UTU93662, UTU93663, UTU93664, UTU93665, UTU93666, UTU93668, UTU93669, UTU93670, UTU93671, UTU93672, UTU93673, UTU93675, UTU93676, UTU93696, UTU93697, UTU93718, UTU93725, UTU93882, UTU93900, UTU93901, UTU93905, UTU93980, UTU93981, UTU93982, and UTU94135 do not have Rocky-canyon Habitat as defined in the Final Recovery Plan (USFWS, 2012) (e.g. one sided cliffs not associated with canyons or canyons with rim to rim width greater than 1 kilometer). Therefore, there is no suitable habitat for Mexican Spotted Owl in the vicinity of these leases.

BLM and USFWS biologists evaluated habitat within and adjacent to Leases UTU91950, UTU93651, UTU93656, UTU93657, UTU93658, UTU93659, UTU93660, UTU93661, UTU93676, UTU93905, UTU93937, and UTU93939 between 2005 and 2009 and these leases were determined to be unsuitable to poor habitat. As habitat characteristics for Canyon habitat are topographically controlled, determinations do not expire. Consequently, these leases do not provide suitable breeding habitat for Mexican Spotted Owl.

Vernal Planning Area (i.e. Vernal FO and portions of the Moab FO north of the Book Cliffs Divide)

The modeled habitat that interests Leases UTU91310 and UTU93913 are not suitable habitat. However, they are located within ½ mile of potential canyon habitat that has not been evaluated for habitat suitability (Lease 91310) or evaluated and found to be fair habitat quality (Lease UTU93913). These areas could be indirectly impacted by potential future development of the leases, particularly due to increased noise.

Leases UTU91311, UTU91949, UTU93684, UTU93686, UTU93687, UTU93688, UTU93692, and UTU93938 intersect modeled habitat that has not had habitat suitability evaluations completed and Leases UTU93679, UTU93911, UTU93923, and UTU93924 intersect habitat that has been evaluated as fair (Lease UTU93911) or good habitat (Leases UTU93679, UTU93923, and UTU93924)

To date, the BLM has not identified any resident Mexican spotted owls in the vicinity of these leases. The implementation of the Lease Notice T&E-25-Mexican Spotted Owl, which includes habitat assessments, surveys, timing restrictions, and monitoring would further reduce impacts to potential habitat for the species. Therefore, a detailed analysis of the impacts to the Mexican spotted owl is not warranted.

Moab Planning Area (ie Moab FO South of the Book Cliffs Divide)

The modeled habitat (Willey & Spotskey) that intersects leases UTU93004, UTU93012, UTU93013, and UTU93014 are not suitable habitat. However, they are located within 0.5 mile of potential Rocky-canyon Habitat. These areas could be indirectly impacted by potential future development of the lease, particularly due to increased noise.

Leases UTU93005, UTU93008, and UTU93010 intersect habitat that has been evaluated as suitable habitat for the species. Of those UTU93005 is fully covered by an NSO stipulation (UT-S-404) and thus there would be no on lease development that could impact Mexican Spotted Owl. Detections of the species have not been made to date within ½ mile of the leases, with the nearest detection approximately 2.5 miles south of UTU93005. Within Leases UTU93008 and UTU93010, suitable nesting and roosting habitat is protected by NSO stipulations (UT-S-372, UT-S-374, UT-S-375, UT-S-386, UT-S-387) and thus there wouldn't be direct loss of suitable habitat from on-lease development. However, suitable habitat could be impacted indirectly by potential future development of the lease, particularly due to increased noise.

Leases UTU93008 and UTU93010 intersect critical habitat for the species, however as with suitable habitat above, the constituent elements are protected by NSO stipulations for other

resources and thus there would be no direct impacts to the necessary critical habitat constituent elements.

The implementation of the Lease Notice T&E-25-Mexican Spotted Owl and Lease Stipulation UT-S-340, which includes habitat assessments, surveys, timing restrictions, and monitoring would further reduce impacts to potential habitat for the species. Therefore, a detailed analysis of the impacts to the Mexican spotted owl is not warranted.

North American Wolverine (*Gulo gulo luscus*) - Threatened

Leases UTU93433, UTU93979, UTU93980, UTU93981, and UTU93982 intersect the USFWS AOI for the North American wolverine. Wolverine individuals have been confirmed in northern Utah, however, there have been no recent records of wolverine reproduction within the state (U.S. Fish and Wildlife Service, 2023). Suitable habitat has been modeled based upon habitat usage in the Greater Yellowstone Ecosystem with thresholds to identify in descending order maternal habitat, primary habitat (i.e. areas suitable for survival and use by resident adults), dispersal habitat by females, and dispersal habitat by males (Inman, et al., 2013).

Leases UTU93433, UTU93979, UTU93980, UTU93981, and UTU93982 are located within habitat modeled as potential male dispersal habitat which is very broad. Refined connectivity modeling (Carroll, Hansen, Inman, Lawrence, & Hoegh, 2020) suggest that Leases UTU93979, UTU93980, UTU93981, and UTU93982 are not located within potential connectivity corridors between broad core habitat areas and Lease UTU93433 is located at the edge of the potential connectivity corridor that follows the Wasatch Range between the Uinta primary habitat patch and the Bear River Range habitat patch in comparatively low quality habitat compared to the higher elevation areas to the west. Future lease development activity could reduce or alter the use of dispersal habitat in the vicinity of the leases. However, given the locations of the leases relative to predicted connectivity corridors, localized changes in habitat usage would not be expected to reduce connectivity between potential core habitat areas.

Leases UTU93980, UTU93981, and UTU93982 intersect modeled female dispersal habitat and lease 93979 is within ½ mile of female dispersal habitat. Future lease development activity could reduce or alter the use of dispersal habitat in the vicinity of the leases. However, the leases are at the edge of predicted female dispersal habitat and are not located between areas of primary habitat and thus localized changes in habitat usage would not be expected to reduce the potential for females to disperse to adjacent areas of primary habitat.

No leases intersect or are within a half mile of modeled maternal habitat and no leases intersect modeled primary habitat. Therefore, future lease development would not result in a direct loss of habitat that could support resident individuals. However, leases UTU93980 and UTU93981 are located within ½ mile of modeled primary habitat. These areas could be indirectly impacted by potential future development of the leases, particularly due to increased noise.

To date, resident wolverines have not been confirmed within any of the core habitat areas in Utah. The implementation of the Lease Notice T&E-36-North American wolverine would further reduce impacts to potential habitat for the species. Therefore, a detailed analysis of the impacts to the North American wolverine is not warranted.

Southwestern willow flycatcher (*Empidonax traillii extimus*) - Endangered

Leases UTU93008, UTU93010, UTU93013, and UTU93723 intersect the USFWS AOI for the Southwestern willow flycatcher. Of those leases UTU93008, UTU93013, and UTU93723 include or are within ¼ mile of dense riparian vegetation that could provide nesting habitat for the species. All suitable habitat on BLM lands within ¼ mile of the leases is protected by No Surface Occupancy stipulation (UT-S-386 & UT-S-387). These stipulations ensure there would be no direct loss of suitable habitat. Approximately 42.6 acres of riparian habitat are within 0.25 miles of the portions of Leases UTU93010 and UTU93013 that do not have these NSO Stipulation. These areas of suitable habitat could be indirectly impacted by potential development of the lease, particularly due to increased noise. However, to date Southwestern willow flycatcher breeding has not been confirmed within the Moab FO, with the nearest known breeding occurring along the San Juan about 60 miles to the south. Additionally, implementation of the Lease Notice T&E-08: Southwestern willow flycatcher, which includes habitat assessments, surveys, timing restrictions, and monitoring would further reduce impacts to potential habitat for the species. Therefore, a detailed analysis of the impacts to the Southwestern willow flycatcher is not warranted.

Utah prairie dog (*Cynomys parvidens*) - Threatened

Leases UTU91055, UTU92311, UTU92313, UTU92314, UTU92315, UTU92316, UTU92328, UTU92330, UTU93250, and UTU93251 intersect the USFWS AOI for the Utah prairie dog. AOIs typically encompass larger areas than simply where the species is known to exist to account for direct and indirect effects to the species and their habitat, in this case, occurring within ten miles of a historic Utah prairie dog colony. Of those all but lease UTU92311 are located within 0.5 miles of modeled habitat for the species (Ikeda, 2010).

Outside of Recovery Units

Leases UTU91055, UTU92313, UTU92314, UTU92315, UTU92316, UTU92328, UTU92330 are located outside of any of the three recovery units for the species, no known extant colonies are in the vicinity of the leases and there are neither plans nor support for future translocations of the species in the vicinity of the leases. Implementation of the Lease Notice (T&E-09) and Stipulation (UT-S-221), which includes habitat assessments, surveys, controlled surface use restrictions, timing restrictions, and monitoring would further reduce impacts to potential habitat for the species outside of the Recovery Units.

Awapa Recovery Unit

Leases UTU93250 and UTU93251 are located within the Awapa Recovery Unit. Within the two leases, there is 2,438 acres that are not covered by a NSO stipulation of which 1,848 acres is modeled habitat.

Using the foreseeable disturbance assumptions in Section 3.2.1 and assuming that one of the five assumed wells in the Richfield FO would be developed on each UTU93250 and UTU93251, 13.6 acres of disturbance would occur within leases that intersect modeled habitat for Utah prairie dog. Assuming random placement of disturbance within the area not under an NSO stipulation, 10.3 acres of modeled suitable habitat would be directly impacted by the development. This

represents 0.1% of the suitable habitat within the leases and less than 0.1% of the modeled suitable habitat within the Awapa Recovery Unit.

Additionally, 93 acres of the Southwest corner of Lease UTU93251 is located within 0.5 miles of a mapped historic Utah prairie dog colony (0319f). The nearest active colony is approximately 9.5 miles to the southwest

Considering that the implementation of the attached lease stipulation (UT-S-221) and lease notice (T&E-09) would further reduce the potential impacts to occupied, unoccupied, or unidentified colonies into the foreseeable future at the lease development stage, detailed analysis on the impacts to Utah prairie dog is not warranted.

Western yellow-billed cuckoo (*Coccyzus americanus*) - Threatened

Leases UTU91055, UTU91068, UTU91304, UTU91305, UTU91306, UTU91311, UTU91334, UTU91343, UTU91938, UTU91946, UTU91949, UTU92311, UTU92313, UTU92314, UTU92315, UTU92330, UTU92677, UTU92679, UTU92682, UTU92683, UTU92684, UTU92685, UTU92686, UTU92695, UTU92696, UTU92702, UTU92704, UTU92708, UTU92710, UTU92711, UTU92712, UTU92713, UTU92714, UTU93008, UTU93010, UTU93013, UTU93014, UTU93252, UTU93261, UTU93602, UTU93603, UTU93604, UTU93605, UTU93645, UTU93646, UTU93651, UTU93656, UTU93657, UTU93658, UTU93659, UTU93661, UTU93662, UTU93663, UTU93664, UTU93665, UTU93666, UTU93668, UTU93676, UTU93679, UTU93681, UTU93684, UTU93685, UTU93687, UTU93688, UTU93694, UTU93695, UTU93702, UTU93723, UTU93732, UTU93734, UTU93735, UTU93884, UTU93899, UTU93911, UTU93915, UTU93916, UTU93917, UTU93920, UTU93921, UTU93922, UTU93923, UTU93925, UTU93926, UTU93927, UTU93928, UTU93930, UTU93931, UTU93935, UTU93936, UTU93939, UTU93962, UTU94003, and UTU94135 intersect the AOI for the western yellow-billed cuckoo. Of those, leases UTU91305, UTU91306, UTU91311, UTU91949, UTU92683, UTU92702, UTU92704, UTU92708, UTU92710, UTU92711, UTU92712, UTU92713, UTU92714, UTU93261, UTU93645, UTU93646, UTU93661, UTU93663, UTU93664, UTU93665, UTU93723, UTU93732, UTU93734, UTU93735, UTU93915, UTU93916, UTU93917, UTU93925, UTU93926, UTU93927, UTU93928, UTU93930, UTU93931, UTU93936, UTU93939, UTU93962, and UTU94135 are not located within ½ mile of riparian forests, riparian woodlands, or other habitat that may provide suitable breeding, migratory, or foraging habitat and therefore, potential future on lease activities on those leases would not impact the species.

Twenty leases (UTU91304, UTU92686, UTU93008, UTU93010, UTU93602, UTU93603, UTU93604, UTU93605, UTU93651, UTU93662, UTU93666, UTU93676, UTU93679, UTU93681, UTU93687, UTU93688, UTU93884, UTU93899, UTU93911, and UTU93923) are not located within ½ mile of areas that may provide suitable breeding habitat and potential usage would be limited to migratory stopover usage.

Twenty-eight leases have portions that intersect potential riparian or wetland habitats within the AOI for the Yellow-billed cuckoo that are not subject to an NSO stipulation¹² (Table 67).

¹² Not all NSO stipulation areas can be identified prior to site specific field reviews

Table 67: Acres riparian habitat within the AOI for Yellow-billed cuckoo by lease

Lease	Acres
UTU91055	4.9
UTU91068	5.0
UTU91304	0.8
UTU91334	19.8
UTU91343	474.5
UTU91946	25.7
UTU92313	0.5
UTU92314	7.9
UTU92315	2.9
UTU92330	0.0
UTU92677	34.3
UTU92679	6.3
UTU92684	102.0
UTU92695	18.3
UTU93013	1.9
UTU93014	6.1
UTU93252	1.6
UTU93656	127.8
UTU93657	50.9
UTU93658	30.9
UTU93684	2.3
UTU93685	8.5
UTU93694	14.0
UTU93695	63.6
UTU93921	1.3
UTU93922	41.0
UTU93935	4.2
UTU94003	69.8
Grand Total	1,126.6

Portions of these riparian areas may contain riparian forest habitat that could be suitable breeding or stop-over habitat for the species. However, direct impacts to these habitats are expected to be limited as lease stipulations are attached to all the leases that establish NSO stipulations on wetlands and riparian area identified at the time of development.

Within ½ mile of lease areas not subject to NSO stipulations are 6,041 acres (including the 1,127 acres identified above) of potential riparian or wetland habitats. These areas could be indirectly impacted by potential future development of the lease, particularly due to increased noise.

The implementation of the Lease Notice T&E-31: Yellow-billed cuckoo, which includes habitat assessments, surveys, timing restrictions, and monitoring would further reduce impacts to

potential habitat for the species. Therefore, a detailed analysis of the impacts to the Yellow-billed cuckoo is not warranted.

Insect Species

Monarch butterfly (*Danaus plexippus*) – Proposed Threatened

All leases have the potential to support the monarch butterfly during a portion of its migration. However, not all areas provide the same habitat value. NatureServe has modeled suitable habitat for the western monarch for both the spring and fall migrations to identify regions of global and local importance to the species (McIntyre, Ceasar, & Young, 2024).

Seventy leases intersect areas designated as either of global or local importance. Within this lease, there are 9,047 acres identified as being of global importance and 6,578 acres of local importance (Table 68 and Table 69: note to due overlapping areas values in the table do not sum to the figure above).

Table 68: Acres of suitable habitat of global and local importance for the western monarch during the spring migration

Lease	Acres of Global Importance During Spring Migration in Lease	Acres of Global Importance During Spring Migration Disturbed in Lease	Acres of Local Importance During Spring Migration in Lease	Acres of Local Importance During Spring Migration Disturbed in Lease	Total Acres of Global and Local Importance During Spring Migration in Lease	Total Acres of Global and Local Importance During Spring Migration Disturbed in Lease
UTU91055	1.8	0.0	24.2	0.1	26.0	0.1
UTU91058	8.2	0.0	135.1	0.3	143.2	0.3
UTU91060		0.0	9.9	0.0	9.9	0.0
UTU91068	143.5	1.2	0.9	0.0	144.4	1.2
UTU91304			47.8	0.2	47.8	0.2
UTU91306			30.0	0.1	30.0	0.1
UTU91334	99.6	0.3	109.6	0.4	209.3	0.7
UTU91342	161.4	0.5	0.8	0.0	162.2	0.5
UTU91343	171.3	0.0	0.4	0.0	171.6	0.0
UTU91938	3.4	0.2			3.4	0.2

Lease	Acres of Global Importance During Spring Migration in Lease	Acres of Global Importance During Spring Migration Disturbed in Lease	Acres of Local Importance During Spring Migration in Lease	Acres of Local Importance During Spring Migration Disturbed in Lease	Total Acres of Global and Local Importance During Spring Migration in Lease	Total Acres of Global and Local Importance During Spring Migration Disturbed in Lease
UTU91946	77.1	1.0			77.1	1.0
UTU91950	16.6	0.2			16.6	0.2
UTU92312	2.6	0.0			2.6	0.0
UTU92313	16.7	0.4	40.5	0.9	57.2	1.2
UTU92314		0.0	6.8	0.0	6.8	0.0
UTU92330	2.9	0.0	7.7	0.0	2.9	0.0
UTU92677	658.0	8.6			665.7	8.7
UTU92679	127.4	1.7	5.9	0.1	133.3	1.7
UTU92684	319.8	14.0	15.4	0.7	335.2	14.7
UTU92685	6.5	0.0			6.5	0.0
UTU92686	15.8	0.7		0.0	15.8	0.7
UTU92695	128.1	0.4	10.9	0.0	139.0	0.5
UTU92765			0.5	0.0	0.5	0.0
UTU92766			0.3	0.0	0.3	0.0
UTU92807			30.3	0.0	30.3	0.0
UTU93005			66.9	0.3	66.9	0.3
UTU93008			10.0	0.0	10.0	0.0
UTU93010			74.0	0.8	74.0	0.8
UTU93014			36.5	0.2	36.5	0.2
UTU93252	71.0	0.5	164.7	1.1	235.7	1.6

Lease	Acres of Global Importance During Spring Migration in Lease	Acres of Global Importance During Spring Migration Disturbed in Lease	Acres of Local Importance During Spring Migration in Lease	Acres of Local Importance During Spring Migration Disturbed in Lease	Total Acres of Global and Local Importance During Spring Migration in Lease	Total Acres of Global and Local Importance During Spring Migration Disturbed in Lease
UTU93602	4.4	0.0	194.4	0.2	198.7	0.2
UTU93603	322.4	0.2	324.3	0.2	646.8	0.4
UTU93604	9.8	0.0	287.9	0.1	297.8	0.1
UTU93605	88.7	0.0	137.3	0.1	225.9	0.1
UTU93656	505.5	6.6	6.1	0.1	511.6	6.7
UTU93657	250.3	3.3	37.2	0.5	287.5	3.8
UTU93658	348.0	4.6	46.5	0.6	394.5	5.2
UTU93659	153.6	6.7	0.2	0.0	153.8	6.7
UTU93665	36.4	1.6	6.2	0.3	42.6	1.9
UTU93679	55.3	1.2	0.0	0.0	55.3	1.2
UTU93684			3.0	0.0	3.0	0.0
UTU93685	48.3	0.2			48.3	0.2
UTU93687	33.7	1.5	5.0	0.2	33.7	1.5
UTU93688	85.9	1.1			90.9	1.2
UTU93694	27.7	1.2	0.0	0.0	27.7	1.2
UTU93695	189.2	8.3	9.2	0.4	198.4	8.7
UTU93702			0.6	0.0	0.6	0.0
UTU93911	201.1	8.8	1.7	0.1	202.8	8.9
UTU93921	14.9	0.7	0.7	0.0	15.6	0.7
UTU93922	63.5	2.8	8.6	0.4	72.1	3.2

Lease	Acres of Global Importance During Spring Migration in Lease	Acres of Global Importance During Spring Migration Disturbed in Lease	Acres of Local Importance During Spring Migration in Lease	Acres of Local Importance During Spring Migration Disturbed in Lease	Total Acres of Global and Local Importance During Spring Migration in Lease	Total Acres of Global and Local Importance During Spring Migration Disturbed in Lease
UTU93935	120.4	1.6	8.9	0.1	129.2	1.7
UTU93939	27.3	1.2			27.3	1.2
UTU93947	0.1	0.0	0.1	0.0	0.2	0.0
UTU93948			2.4	0.1	2.4	0.1
UTU94003	81.8	0.0	0.0	0.0	81.8	0.0
Grand Total	4,699.7	81.3	1,909.3	8.7	6,609.1	89.9

Using the disturbance assumptions outlined in Section 3.2.1 and assuming random placement of disturbance relative to the modeled areas, there would be an estimated 81.3 acres of disturbance to habitat of global importance and 8.7 acres of disturbance to habitat of local importance during the spring migration (Table 68) and estimated 94.1 acres of disturbance to habitat of global importance and 84.3 acres of disturbance to habitat of local importance during the fall migration (Table 69).

Table 69: Acres of suitable habitat of global and local importance for the western monarch during the fall migration

Lease	Acres of Global Importance During Fall Migration in Lease	Acres of Global Importance During Fall Migration Disturbed in Lease	Acres of Local Importance During Fall Migration in Lease	Acres of Local Importance During Fall Migration Disturbed in Lease	Total Acres of Global and Local Importance During Fall Migration in Lease	Total Acres of Global and Local Importance During Fall Migration Disturbed in Lease
UTU91055	176.1	0.8	89.4	0.4	265.4	1.2
UTU91058	111.5	0.2	211.5	0.5	323.0	0.7

Lease	Acres of Global Importance During Fall Migration in Lease	Acres of Global Importance During Fall Migration Disturbed in Lease	Acres of Local Importance During Fall Migration in Lease	Acres of Local Importance During Fall Migration Disturbed in Lease	Total Acres of Global and Local Importance During Fall Migration in Lease	Total Acres of Global and Local Importance During Fall Migration Disturbed in Lease
UTU91060	83.1	0.3			83.1	0.3
UTU91068	117.6	1.0	54.3	0.4	171.9	1.4
UTU91304	210.1	0.8			210.1	0.8
UTU91305	162.2	0.6	251.1	0.9	251.1	0.9
UTU91306			109.7	0.4	109.7	0.4
UTU91334			180.9	0.6	180.9	0.6
UTU91342			216.4	0.7	162.2	0.5
UTU91343	158.2	0.0	39.3	0.0	374.6	0.0
UTU91945	74.6	3.3			113.8	5.0
UTU91946	77.1	1.0			77.1	1.0
UTU91948	8.3	0.4	31.7	1.4	40.0	1.8
UTU91950			10.4	0.1	10.4	0.1
UTU92313	133.8	2.8	284.3	6.0	133.8	2.8
UTU92314	12.4	0.0			296.7	0.9
UTU92315	18.9	0.0	16.5	0.0	16.5	0.0

Lease	Acres of Global Importance During Fall Migration in Lease	Acres of Global Importance During Fall Migration Disturbed in Lease	Acres of Local Importance During Fall Migration in Lease	Acres of Local Importance During Fall Migration Disturbed in Lease	Total Acres of Global and Local Importance During Fall Migration in Lease	Total Acres of Global and Local Importance During Fall Migration Disturbed in Lease
UTU92330			26.4	0.1	45.3	0.1
UTU92677	593.9	7.8	42.9	0.6	636.8	8.4
UTU92679			73.3	1.0	73.3	1.0
UTU92684	369.8	16.2	118.5	5.2	488.4	21.4
UTU92685	83.5	0.3	8.6	0.0	92.2	0.3
UTU92686	9.7	0.4	133.4	5.8	143.1	6.3
UTU92695	754.9	2.5			754.9	2.5
UTU92696	13.6	0.2			13.6	0.2
UTU92766	79.8	0.0	16.5	0.0	16.5	0.0
UTU92807			16.1	0.0	16.1	0.0
UTU93005			112.5	0.4	112.5	0.4
UTU93008			40.2	0.1	79.8	0.2
UTU93010	92.4	0.8	189.0	1.7	132.7	1.2
UTU93013	40.3	2.8			40.3	2.8
UTU93014	277.2	1.2			277.2	1.2

Lease	Acres of Global Importance During Fall Migration in Lease	Acres of Global Importance During Fall Migration Disturbed in Lease	Acres of Local Importance During Fall Migration in Lease	Acres of Local Importance During Fall Migration Disturbed in Lease	Total Acres of Global and Local Importance During Fall Migration in Lease	Total Acres of Global and Local Importance During Fall Migration Disturbed in Lease
UTU93252	308.2	2.1			308.2	2.1
UTU93602	27.3	0.0			189.0	0.2
UTU93603	59.3	0.0	523.0	0.3	550.4	0.4
UTU93604	164.0	0.1	459.0	0.3	518.3	0.3
UTU93605			494.7	0.3	658.7	0.4
UTU93650	50.1	0.7	201.5	2.6	50.1	0.7
UTU93656	363.5	4.8			565.1	7.4
UTU93657	466.8	6.1			466.8	6.1
UTU93658	270.2	3.5	80.5	1.1	350.8	4.6
UTU93659			226.6	9.9	226.6	9.9
UTU93679			106.9	2.3	106.9	2.3
UTU93684	11.6	0.0	31.1	0.1	42.7	0.1
UTU93685	46.0	0.2			46.0	0.2
UTU93687	63.9	2.8			63.9	2.8
UTU93688	96.5	1.3			96.5	1.3

Lease	Acres of Global Importance During Fall Migration in Lease	Acres of Global Importance During Fall Migration Disturbed in Lease	Acres of Local Importance During Fall Migration in Lease	Acres of Local Importance During Fall Migration Disturbed in Lease	Total Acres of Global and Local Importance During Fall Migration in Lease	Total Acres of Global and Local Importance During Fall Migration Disturbed in Lease
UTU93694			21.3	0.9	21.3	0.9
UTU93695	206.4	9.0	65.5	2.9	271.9	11.9
UTU93702	2.2	0.0	42.4	0.2	44.6	0.2
UTU93884	0.2	0.0			0.2	0.0
UTU93899	132.0	1.7	49.4	0.6	181.4	2.4
UTU93911			109.3	4.8	109.3	4.8
UTU93916			63.5	0.8	63.5	0.8
UTU93917			107.1	4.7	107.1	4.7
UTU93918			175.5	7.5	175.5	7.5
UTU93920	103.4	4.5	74.9	3.3	178.3	7.8
UTU93921	33.2	1.5	10.1	0.4	43.3	1.9
UTU93922	109.3	4.8	211.1	9.2	320.4	14.0
UTU93935	402.7	5.3			402.7	5.3
UTU93946			6.1	0.3	6.1	0.3
UTU93947			23.8	1.0	23.8	1.0

Lease	Acres of Global Importance During Fall Migration in Lease	Acres of Global Importance During Fall Migration Disturbed in Lease	Acres of Local Importance During Fall Migration in Lease	Acres of Local Importance During Fall Migration Disturbed in Lease	Total Acres of Global and Local Importance During Fall Migration in Lease	Total Acres of Global and Local Importance During Fall Migration Disturbed in Lease
UTU93948	52.3	2.3	49.9	2.2	102.2	4.5
UTU93963			47.2	2.1	47.2	2.1
UTU94003	83.3	0.0			83.3	0.0
Grand Total	6,711.7	94.1	5,453.2	84.3	12,164.9	173.1

This represents less than 0.1% of either the habitat of global importance or the combined habitat of global and local importance during the spring migration within the watersheds encompassing the leases. Similarly, this represents 0.1% of either the habitat of global importance or the combined habitat of global and local importance during the fall migration within the watersheds encompassing the leases.

Given the low expected disturbance relative to the available habitat at the local, regional, and global levels, and considering the implementation of the attached lease notice (UT-LN-156), a detailed analysis of the impacts on the monarch butterfly is not warranted.

Silverspot butterfly (*Speyeria nokomis nokomis*) - Threatened

Leases UTU93005, UTU93008, UTU93010, UTU93012, UTU93013, UTU93014, UTU93723, UTU93724, UTU93732, UTU93734, and UTU93735 intersects the USFWS AOI for the silverspot butterfly.

Of those, leases UTU93005, UTU93012, UTU93723, UTU93732, UTU93734, and UTU93735 are not located within ½ mile of any areas of potential perennial wetlands and therefore do not have suitable habitat present.

Leases UTU93008, UTU93010, UTU93013, and UTU93014 have potential riparian habitat within them along Kane Springs Creek, Hatch Wash, or their tributaries. These habitats are protected by a No Surface Occupancy stipulation (UT-S-386) within 500 feet of intermittent and perennial streams, rivers, riparian areas, wetlands, water wells, and springs. Lease UTU93724 has no potential wetlands within the lease boundary with the nearest potential wetland located about 700 feet outside of the lease on surface managed by the Utah Trust Land Administration.

Therefore, on-lease development would not result in direct loss of suitable habitat for the Silverspot butterfly.

Additionally, the current conservation measure for the species identifies a 300 foot avoidance between surface disturbing activities and suitable habitat, less than the 500 foot avoidance provided by the No Surface Occupancy stipulation identified above.

Additionally, the implementation of the attached lease notice (T&E-35) will further reduce potential impacts on the silverspot butterfly and a detailed analysis of the impacts on the species is not warranted.

Suckley's cuckoo bumble bee (*Bombus suckleyi*) – Proposed Endangered

The current USFWS AOI for Suckley's bumblebee covers all of the State of Utah due to the uncertainty with the potential range for the species. Western bumblebee (*Bombus occidentalis*) is the primary host for Suckley's bumblebee. An occupancy model for western bumblebee has been developed (Graves, et al., 2020). Using post-hoc EPA Level III Ecoregion specific thresholds (0.21 for the Colorado Plateaus and the Central Basin and Range and the hydrological units in adjacent mountain ecoregions that flow into each of those), it is possible to identify areas of potential habitat for western bumblebee and by association Suckley's bumblebee. Using these thresholds, portions of leases UTU91310, UTU93250, UTU93251, UTU93980, UTU93982, UTU92330, UTU91311, UTU93959, UTU93913, UTU93966, UTU92328, UTU93979, and UTU93981 may provide habitat for western bumblebee and Suckley's bumblebee (Table 70).

Table 70: Acres of potential habitat for the Western bumble bee and Suckley's cuckoo bumble bee

Lease	Acres of potential habitat	Acres of potential habitat disturbed
UTU91310	119.8	15.0
UTU93250	1,844.3	6.8
UTU93251	1,239.9	6.8
UTU93980	1,742.7	78.8
UTU93982	1,143.6	50.2
UTU92330	1,308.6	6.8
UTU91311	220.3	15.0
UTU93959	1,436.5	63.0
UTU93913	2,235.6	98.1
UTU93966	279.3	12.2
UTU92328	1,258.7	6.9
UTU93979	719.7	2.7
UTU93981	956.1	2.9
Total	14,505.1	365.2

Based on the disturbance assumptions outlined in Section 3.2.1, the estimated disturbance to potential habitat would be 365 acres. This represents less than 0.1% of the potential habitat within the watersheds overlapping these leases (individual watersheds range from less than 0.01% to 0.16% of potential habitat).

Given the low expected disturbance relative to the available habitat at the local, regional, and global levels, and considering the implementation of the attached lease notice (UT-LN-156), potential impacts will be minimized and a detailed analysis of the impacts on the Suckley's bumblebee is not warranted.

Plant Species

Within the analyzed, potential habitat of ten federally listed plant species were identified: Welsh's milkweed (*Asclepias welshii*), Navajo sedge (*Carex specuicola*), Jones cycladenia (*Cycladenia jonesii*), clay reed-mustard (*Hesperidanthus argillaceae*), Ute ladies'-tresses (*Spiranthes diluvialis*), and Last Chance townsendia (*Townsendia aprica*) discussed in this section and shrubby reed-mustard (*Hesperidanthus suffrutescens*), Pariette cactus (*Sclerocactus brevispinus*), and Uinta Basin hookless cactus (*Sclerocactus wetlandicus*) discussed in Issues Analyzed in Detail (Sections 3.5.4 to 3.5.7).

Lease Notice T&E-05 is also attached to all leases to provide notice that habitat for currently federally listed or species listed in the future may be identified within the lease.

Welsh's milkweed (*Asclepias welshii*) - Threatened

Lease UTU93723 intersects the USFWS AOI for Welsh's milkweed. The species has not been identified previously within San Juan County, Utah with the nearest known population located approximately 53 miles to the southwest. Additionally, the mapped soils within the lease have a higher proportion of silt and clay (as a course sandy loam (NRCS, 2024) than is generally associated with the species, therefore the potential for suitable habitat to be present is low.

Additionally, the implementation of the attached lease notice (T&E-34) which includes habitat assessments, surveys, avoidance of occupied habitat, and additional minimization measures will further reduce potential impacts on Welsh's milkweed habitat and a detailed analysis of the impacts on Welsh's milkweed is not warranted

Navajo sedge (*Carex specuicola*) - Threatened

Leases UTU93004, UTU93005, UTU93008, UTU93010, UTU93012, UTU93013, and UTU93014 intersect the USFWS AOI for Navajo sedge. There are no known populations within 300 feet of any analyzed lease. All of these leases have within them or within 1.25 miles potential springs that may provide suitable habitat for the species. On these leases, stipulation UT-S-386 provides protection to suitable habitat for the species by establishing an NSO requirement within 500 feet of intermittent and perennial streams, rivers, riparian areas, wetlands, water wells, and springs. Therefore, there would be no direct loss of suitable habitat from future on-lease development or the majority of potential indirect impacts.

Additionally, the implementation of the attached lease notice (T&E-30) which includes habitat assessments, surveys, avoidance of occupied habitat, and additional minimization measures will further reduce potential impacts on Navajo sedge habitat and a detailed analysis of the impacts on Navajo sedge is not warranted.

Jones cycladenia (*Cycladenia humilis* var. *jonesii*) - Threatened

Leases UTU93004, UTU93005, UTU93008, UTU93010, UTU93012, UTU93013, UTU93014, and UTU93702 intersect the USFWS AOI for Jones cycladenia. Habitat modeling for the species (BLM unpublished) identified 263,925 acres of habitat across the range of the species. There are no known populations within 300 feet of any analyzed lease. Lease UTU93008 is located within 300 feet of 0.08 acres of modeled suitable habitat and may result in indirect impacts to suitable habitat.

Additionally, the implementation of the attached lease notice T&E-19) which includes habitat assessments, surveys, avoidance of occupied habitat, and additional minimization measures will further reduce potential impacts on Jones cycladenia habitat and a detailed analysis of the impacts on Jones cycladenia is not warranted.

Clay reed-mustard (*Hesperidanthus* [*Schoenocrambe*] *argillaceae*) - Threatened

Leases UTU91068, UTU91937, UTU91953, and UTU93884 intersect the USFWS AOI for clay reed-mustard. Habitat modeling for the species (BLM unpublished) identified 5,346 acres of habitat across the range of the species. There are no known populations within 300 feet of any analyzed lease. Leases UTU91937 and UTU93884 intersect modeled suitable habitat for the species.

Table 71: Modeled suitable habitat for clay-reed mustard and estimated habitat disturbed

Lease	Acres of Modeled Habitat	Acres of Modeled Habitat Disturbed
91937	20.2	0.9
93884	3.8	0.1
Grand Total	24.0	0.9

Based on the disturbance assumptions outlined in Section 3.2.1, the estimated disturbance to modeled suitable habitat would be 0.9 acres. This represents less than 0.1% of the modeled suitable habitat for the species.

An additional 4.7 acres of modeled suitable habitat is located within 300 feet of leases. Habitat may be indirectly impacted by on-lease activities.

The implementation of the attached lease notice (T&E-20) which includes habitat assessments, surveys, avoidance of occupied habitat, and additional minimization measures will further reduce potential impacts on clay reed-mustard habitat and a detailed analysis of the impacts on clay reed-mustard is not warranted.

San Rafael cactus (*Pediocactus despainii*) – Endangered

Lease UTU91334 intersect the USFWS AOI for the San Rafael cactus. Habitat modeling for the species (BLM unpublished) identified 83,604 acres of habitat across the range of the species. There are no known populations within 300 feet of any analyzed lease. There are 3.8 acres of modeled suitable habitat within the lease. Based on the disturbance assumptions outlined in Section 3.2.1, the estimated disturbance to modeled suitable habitat would be 0.1 acres. This represents less than 0.1% of the modeled suitable habitat for the species.

An additional 5.4 acres of modeled suitable habitat is located within 300 feet of leases. Habitat may be indirectly impacted by on-lease activities.

The implementation of the attached lease notice (T&E-17) which includes habitat assessments, surveys, avoidance of occupied habitat, and additional minimization measures will further reduce potential impacts on San Rafael cactus habitat and a detailed analysis of the impacts San Rafael cactus is not warranted

Ute ladies'-tresses (*Spiranthes diluvialis*) - Threatened

One hundred and seventy of the 195 leases intersect the USFWS AOI for Ute ladies'-tresses. The AOI was developed based on a habitat model created by the USFWS. However, the threshold used for classifying habitat is very low (i.e., quite conservative), leading to a significant overestimation of the potential habitat area.

By employing a detrended Modified Soil Adjusted Vegetation Index surface—calculated from the four-band National Agricultural Imagery Program data—it becomes possible to identify areas that qualify as statistical outliers (those exceeding 2 standard deviations) after excluding areas of open water. This approach helps to remove areas that are clearly unsuitable as habitat (including shrublands). Nevertheless, it still overestimates potential habitat because it includes not only wetlands, which are suitable for Ute ladies'-tresses, but also non-suitable habitat regions of higher vegetative productivity, including moister pinyon-juniper woodlands and Gambel's oak woodlands.

Ute ladies'-tresses, but also regions of higher vegetative productivity, such as moister pinyon-juniper woodlands and Gambel's oak woodlands.

This remote sensing-based habitat evaluation concludes that 68 of the leases may contain potential habitat for the species. Thirty-one leases have areas that are not subject to an NSO stipulation¹³ that intersect potential riparian or wetland habitats within the AOI for the Ute-ladies' tresses (Table 72).

Table 72: Acres of potential habitat for Ute-ladies' tresses and potential disturbance

Lease	Acres Habitat	Acres Potential Disturbance
UTU91055	4.9	0.0
UTU91305	1.9	0.0
UTU91334	19.9	0.1
UTU91343	474.9	0.0
UTU92313	0.5	0.0
UTU92314	8.4	0.0
UTU92315	3.0	0.0
UTU92330	0.0	0.0
UTU92677	6.9	0.1
UTU93917	3.7	0.2

¹³ Not all NSO stipulation areas can be identified prior to site specific field reviews.

Lease	Acres Habitat	Acres Potential Disturbance
UTU93252	1.6	0.0
UTU93605	0.3	0.0
UTU93651	32.8	1.4
UTU93656	6.1	0.1
UTU93694	10.5	0.5
UTU93665	51.9	2.3
UTU93676	3.8	0.1
UTU93679	188.0	4.1
UTU93666	2.3	0.1
UTU93911	78.5	3.4
UTU93681	2.4	0.1
UTU93684	2.4	0.0
UTU93685	6.1	0.0
UTU93687	1.5	0.1
UTU93688	40.3	0.5
UTU93695	58.2	2.5
UTU93922	4.5	0.2
UTU93899	11.8	0.2
UTU93921	0.9	0.0
UTU93923	0.0	0.0
UTU93935	3.1	0.0
Grand Total	1,031.0	16.1

Based on the disturbance assumptions outlined in Section 3.2.1 and assuming a random distribution of disturbance relative to the modeled areas, the estimated disturbance to potential habitat would be 16.1 acres. However, direct impacts to these habitats are expected to be limited as lease stipulations are attached to all the leases that establish NSO stipulations on wetlands and riparian area identified at the time of development.

Within 300 feet of lease areas not subject to NSO stipulations are 1,269 acres (including the 1,031 acres identified above) of potential riparian or wetland habitats. These areas could be indirectly impacted by potential future development of the lease.

Given the minimal expected disturbance relative to the available habitat at local, regional, and global scales, along with the implementation of the attached lease notice (T&E-22) and stipulation (UT-S-314 in the Richfield Field Office), a detailed analysis of the impacts on Ute ladies'-tresses is unnecessary.

Last Chance townsendia (*Townsendia aprica*) - Threatened

Leases UTU93250 and UTU93251 intersect the USFWS AOI for Last Chance townsendia. There are no known populations within 300 feet of any analyzed lease and habitat modeling for the species (BLM unpublished) does not identify modeled suitable habitat within 300 feet

The implementation of the attached lease notice (T&E-14) which includes habitat assessments, surveys, avoidance of occupied habitat, and additional minimization measures will further reduce potential impacts on Last Chance townsendia and a detailed analysis of the impacts on the species is not warranted

AIB-22 Utah BLM Sensitive Species

How would potential development of the leases affect BLM sensitive species or their habitats?

BLM sensitive species have been identified as those species that require additional conservation to prevent decline of populations to the point where they may be considered for listing under the Endangered Species Act. The BLM has several lease stipulations and lease notices that protect sensitive species statewide. Listed in Table 73 and Table 74 are leases that have been identified as having occurrence, or potential occurrence, of several species of plants or animals that may require modification of surface use plans at the APD stage to avoid disruptive or harmful activities.

The potential development of leases would result in a direct disturbance to 5,927.5 acres of habitat from the construction of well pads and associated roads. These developments also create habitat fragmentation by intersecting and occupying habitat. Noise and other human disturbances will occur during all phases of development and production as well as reclamation but will be reduced after the original construction phase. Traffic on roads to construct, maintain and service the facilities may cause possible direct mortalities from collisions with wildlife individuals, and noise and human activity in the area will cause disturbance continually. BLM Sensitive Species were analyzed in brief because of the notices and stipulation attached to the leases. The notices let the lessee/producer know the species may be present and what may be required by the site-specific NEPA at the APD stage. The stipulations require action on the identified species.

The potential development of leases would result in water usage of 1,980,133 bbl for leases in Vernal FO and 30,338 bbl for the leases in the other FOs (See Section 3.2.1). At this stage, the source of water, amount of water that will be recycled, and impacts of this use on sensitive species are not known and will be addressed by site specific NEPA at the APD stage. New water withdrawals within the watershed that result in decreased stream flow could impact aquatic and riparian habitat dependent species as discussed further in AIB-25 Water Resources (Groundwater and Surface water). Lease notices and stipulations that require consultation for the threatened and endangered fish of the Colorado River (T&E-03) and those that limit surface disturbing activities in floodplain, riparian, or wetland areas will minimize impacts to these species and habitats.

Habitat in this area includes Great Basin & Intermountain Tall Sagebrush Shrubland & Steppe, Great Basin Saltbush Scrub, Southern Rocky Mountain Two-Needle Pinyon – One Seed Juniper Woodland, Great Basin & Intermountain Dry Shrubland & Grassland, and Great Basin & Intermountain Dwarf Sagebrush Shrubland & Steppe. BLM Sensitive Species were analyzed in brief because of the notices and stipulation attached. The notices let the lessee/producer know the species may be present and what may be required by the site-specific NEPA at the APD stage. The stipulations require action on the identified species.

Aquatic Animals

There are three sensitive fish species with a Conservation Agreement and Strategy that occur in the Upper Colorado River Basin, flannelmouth sucker (*Catostomus latipinnis*), bluehead sucker (*Pantosteus discobolus*), and roundtail chub (*Gila robusta*). These species occur in the same habitats as the threatened and endangered fish of the Upper Colorado River Basin (AIB 21) as well as in some additional tributary habitats in the Upper Colorado River watershed. The analysis and the stipulations and notices that apply for the T&E fish in the Upper Colorado River watershed also apply and provide the same protections to these three species. In addition, UT-LN-49 is applied to all leases which notifies the lessee that disturbances that would result in disturbance to populations would not be allowed and modifications to the surface use plan of operations may be required. Due to these notices and the leases and notices discussed in AIB – Aquatic habitats sufficient protections are provided that detailed analysis is not required.

Colorado River cutthroat trout (*Oncorhynchus virginalis pleuriticus*) is managed under a Conservation Agreement and Strategy. This fish occurs in headwater streams in the Upper Colorado River watershed. Leases in Vernal FO that may have Colorado River Cutthroat Trout or that could impact CRCT populations include – UTU92686, UTU93651, UTU93665, UTU93676, UTU93679, UTU93899, UTU93965, UTU93982. Leases in Salt Lake FO include UTU93981 and UTU93979, and lease UTU93250 in Richfield FO. UT-LN-49 notifying the lessee of sensitive species is applied to all leases as well as UT-LN-122 for the leases in Salt Lake FO that provides a timing restriction. Due to these notices and the leases and notices discussed in AIB – Aquatic habitats sufficient protections are provided that detailed analysis is not required.

Bonneville cutthroat trout (*Oncorhynchus virginalis utah*) and southern leatherside chub (*Lepidomeda aliciae*) are both managed under Conservation Agreement and Strategies and found in headwater and mid-elevation streams in the Bonneville Basin. Populations or habitat for these species may occur in leases within the Richfield FO – UTU91055, UTU91060, UTU92314, UTU93252, Fillmore FO – UTU93602, UTU93603, UTU93604, UTU93605, or Salt Lake FO – UTU93433. UT-LN-49 notifying the lessee of sensitive species is applied to all leases as well as UT-LN-122 for the leases in Salt Lake FO that provides a timing restriction. Due to these lease notices and the stipulations and lease notices discussed in AIB-2 Aquatic Habitats and Species sufficient protections are provided that detailed analysis is not required.

Terrestrial Animals

The BLM uses many techniques to determine if sensitive species are present or their habitat may be present. GIS, surveys, habitat models are some examples. All leases have UT-LN-49 attached to them which states, “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. 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.” This ensures that at

the APD-stage local analysis may find additional sensitive species present and accounts for their protection at that time. Known occurrences are listed in the table below.

Table 73 BLM Sensitive and Conservation Agreement Terrestrial Species-Lease Documentation with Applicable Lease Stipulations and Notices.

Common Name	Scientific Name	Status	Lease ID
Birds			
Bald Eagle	<i>Haliaeetus leucocephalus</i>	SGCN / SS	UTU91060, UTU91068, UTU91310, UTU91342, UTU91343, UTU92316, UTU92487, UTU92314, UTU92328, UTU92677, UTU92685, UTU92686, UTU92695, UTU92696, UTU92765, UTU92766, UTU92766, UTU92807, UTU93602, UTU93603, UTU93604, UTU93605, UTU93646, UTU93979
Burrowing owl	<i>Athene cunicularia</i>	SGCN / SS	UTU92487, UTU92765, UTU92766, UTU92807, UTU93001, UTU93002, UTU93003, UTU93012, UTU93433, UTU93013, UTU93014, UTU93602, UTU93603, UTU93604, UTU93605, UTU93433, UTU93602, UTU93702, UTU93708, UTU93711, UTU93712, UTU93714, UTU93715, UTU93718
Ferruginous hawk	<i>Buteo regalis</i>	SS	UTU92765, UTU92766, UTU92807, UTU93010, UTU93012, UTU93013, UTU93014, UTU93664, UTU93708, UTU93711, UTU93712, UTU93714, UTU93715, UTU93718
Golden eagle	<i>Aquila chrysaetos</i>	SS	UTU91055, UTU91058, UTU91060, UTU91310, UTU91311, UTU91342, UTU91343, UTU91932, UTU91933, UTU91936, UTU91937, UTU91938, UTU91945, UTU91946, UTU91948, UTU91949, UTU91950, UTU91952, UTU91953, UTU92311, UTU92312, UTU92313, UTU92314, UTU92315, UTU92316, UTU92328, UTU92330, UTU92765, UTU92766, UTU92807, UTU93001, UTU93003, UTU93004, UTU93005, UTU93008, UTU93010, UTU93012, UTU93013, UTU93014, UTU93250, UTU93251, UTU93252, UTU93433, UTU93602, UTU93603, UTU93604, UTU93605, UTU93645, UTU93646, UTU93651, UTU93655, UTU93656, UTU93657, UTU93658, UTU93659, UTU93660, UTU93661, UTU93662, UTU93663, UTU93664, UTU93665, UTU93666, UTU93668, UTU93669, UTU93670, UTU93671, UTU93672, UTU93673, UTU93657, UTU93676, UTU93679, UTU93681, UTU93685, UTU93686, UTU93687, UTU93688, UTU93692, UTU93694, UTU93695, UTU93696, UTU93697, UTU93702, UTU93705, UTU93707, UTU93708, UTU93710, UTU93711, UTU93712, UTU93714, UTU93715, UTU93718, UTU93725, UTU93881, UTU93882, UTU93884, UTU93888, UTU93899, UTU93900, UTU93901, UTU93902, UTU93903, UTU93904, UTU93905, UTU93906, UTU93907, UTU93904, UTU93911, UTU93913, UTU93914, UTU93915, UTU93916, UTU93917, UTU93918, UTU93919, UTU93920, UTU93921, UTU93922, UTU93923, UTU93924, UTU93925, UTU93926, UTU93927, UTU93928, UTU93929, UTU93930, UTU93931, UTU93933, UTU93934, UTU93935, UTU93936, UTU93937, UTU93938, UTU93939, UTU93946, UTU93947, UTU93948, UTU93959, UTU93962, UTU93963, UTU93965, UTU93966, UTU93968, UTU93979, UTU93980, UTU93981, UTU93982, UTU94003, UTU94135
Mammals			

Common Name	Scientific Name	Status	Lease ID
Gunnison's Prairie-dog	<i>Cynomys gunnisoni</i>	SGCN / SS	UTU92676, UTU92677, UTU92679, UTU92680, UTU92682, UTU92683, UTU92684, UTU92685, UTU92686, UTU92695, UTU92696, UTU92697, UTU92698, UTU92700, UTU92710, UTU92711, UTU92714, UTU93001, UTU93002, UTU93010, UTU93012, UTU93013, UTU93014, UTU93261, UTU93611, UTU93612, UTU93645, UTU93646, UTU93650, UTU93651, UTU93655, UTU93656, UTU93657, UTU93658, UTU93659, UTU93660, UTU93661, UTU93662, UTU93663, UTU93664, UTU93665, UTU93666, UTU93668, UTU93669, UTU93670, UTU93671, UTU93672, UTU93673, UTU93675, UTU93676, UTU93679, UTU93681, UTU93685, UTU93686, UTU93687, UTU93688, UTU93692, UTU93694, UTU93695, UTU93696, UTU93697, UTU93705, UTU93707, UTU93708, UTU93710, UTU93711, UTU93712, UTU93714, UTU93715, UTU93718, UTU93723, UTU93724, UTU93725, UTU93732, UTU93734, UTU93881, UTU93882, UTU93884, UTU93888, UTU93899, UTU93900, UTU93901, UTU93902, UTU93903, UTU93904, UTU93905, UTU93906, UTU93907, UTU93904, UTU93911, UTU93913, UTU93914, UTU93915, UTU93916, UTU93917, UTU93918, UTU93919, UTU93920, UTU93921, UTU93922, UTU93923, UTU93924, UTU93925, UTU93926, UTU93927, UTU93928, UTU93929, UTU93930, UTU93931, UTU93933, UTU93934, UTU93935, UTU93936, UTU93937, UTU93938, UTU93939, UTU93946, UTU93947, UTU93948, UTU93959, UTU93962, UTU93963, UTU93965, UTU93966, UTU93968, UTU93980, UTU94135
Kit fox	<i>Vulpes macrotis</i>	SGCN / SS	UTU93003, UTU93004, UTU93005, UTU93008, UTU93012, UTU93013
White-tailed prairie dog	<i>Cynomys leucurus</i>	SGCN / SS	UTU91304, UTU91305, UTU91306, UTU91308, UTU91334, UTU91340, UTU92670, UTU92674, UTU92676, UTU92677, UTU92679, UTU92680, UTU93682, UTU92683, UTU93684, UTU93685, UTU92686, UTU92695, UTU92696, UTU92697, UTU93698, UTU92700, UTU92701, UTU92702, UTU92703, UTU93704, UTU92708, UTU92709, UTU92710, UTU92711, UTU92712, UTU92713, UTU92714, UTU93001, UTU93002, UTU93010, UTU93012, UTU93013, UTU93014, UTU93261, UTU93611, UTU93612, UTU93645, UTU93646, UTU93650, UTU93651, UTU93655, UTU93656, UTU93657, UTU93658, UTU93659, UTU93660, UTU93661, UTU93662, UTU93663, UTU93664, UTU93665, UTU93666, UTU93668, UTU93669, UTU93670, UTU93671, UTU93672, UTU93673, UTU93675, UTU93676, UTU93679, UTU93681, UTU93685, UTU93686, UTU93687, UTU93688, UTU93692, UTU93694, UTU93695, UTU93696, UTU93697, UTU93705, UTU93707, UTU93708, UTU93710, UTU93711, UTU93712, UTU93714, UTU93715, UTU93718, UTU93723, UTU93724, UTU93725, UTU93732, UTU93734, UTU93735, UTU93881, UTU93882, UTU93884, UTU93888, UTU93899, UTU93900, UTU93901, UTU93902, UTU93903, UTU93904, UTU93905, UTU93906, UTU93907, UTU93904, UTU93911, UTU93913, UTU93914, UTU93915, UTU93916, UTU93917, UTU93918, UTU93919, UTU93920, UTU93921, UTU93922, UTU93923, UTU93924, UTU93925, UTU93926, UTU93927, UTU93928, UTU93929, UTU93930,

Common Name	Scientific Name	Status	Lease ID
			UTU93931, UTU93933, UTU93934, UTU93935, UTU93936, UTU93937, UTU93938, UTU93939, UTU93946, UTU93947, UTU93948, UTU93959, UTU93962, UTU93963, UTU93965, UTU93966, UTU93968, UTU93980, UTU93982, UTU94135

CA-Conservation Agreement species, CS-Candidate species, SGCN-Utah State Species of Conservation Need, SS-BLM Sensitive Species

Plant Species

Within the leases, populations of three BLM-sensitive plant species were identified: Horseshoe milkvetch (*Astragalus equisolensis*), Hamilton milkvetch (*Astragalus hamiltonii*), Lost Creek buckwheat (*Eriogonum brevicaulum* var. *mitophyllum*), Flat Tops buckwheat (*Eriogonum smithii*), Arapien stick-leaf (*Mentzelia argillosa*), Barneby catseye (*Oreocarya barnebyi*), Ward's beardtongue (*Penstemon wardii*), Utah phacelia (*Phacelia utahensis*), Sigurd Easter daisy (*Townsendia jonesii* var. *lutea*), sterile yucca (*Yucca sterilis*) discussed in this section and Graham's penstemon (*Penstemon grahamii*) and White River penstemon (*Penstemon albifluvis*) discussed in Issues Analyzed in Detail (Sections 3.5.8, 3.5.9, and 3.5.10)

Based on a desktop review, 36 additional sensitive species were identified as potentially having habitat within the leases (see Table 74).

The desktop review involved intersecting the General Soil Map of the United States (STATSGO2) soil units (NRCS, 2014) with known plant locations. To ensure all potential habitats were identified, additional STATSGO2 soil units that share soil components with the intersected soil units were also included. Finally, for species that are closely associated with specific geological formations, areas identified using STATSGO2 were refined to those that intersect with the required geological formations.

This identified area can be considered the outer potential bounds of the species' range. However, a comprehensive assessment of suitable habitat—that is, habitats containing the necessary biotic and abiotic components to support the species—has not yet been completed for the majority of BLM-sensitive plant species.

Table 74 Sensitive Plant Species with Potential to Occur within Leases but Not Present

Name	Background and Documentation for Species / Potential Habitat Occurrence in Leases
<i>Aliciella caespitosa</i>	Leases UTU92330, UTU92487, UTU92670, UTU93261, and UTU93602 intersect STATSGO2 soils associated with <i>Aliciella caespitosa</i> . No populations have been identified within the identified leases
<i>Aliciella tenuis</i>	Leases UTU91305, UTU91306, and UTU91308 intersect STATSGO2 soils associated with <i>Aliciella tenuis</i> . No populations have been identified within the identified leases
<i>Aquilegia scopulorum goodrichii</i>	Leases UTU91936, UTU91937, UTU91938, UTU92679, UTU93604, and UTU93901 intersect STATSGO2 soils associated with <i>Aquilegia scopulorum goodrichii</i> . No populations have been identified within the identified leases

Name	Background and Documentation for Species / Potential Habitat Occurrence in Leases
<i>Astragalus cronquistii</i>	Lease UTU93899 intersect STATSGO2 soils associated with <i>Astragalus cronquistii</i> goodrichii. No populations have been identified within the identified leases
<i>Astragalus holmgreniorum</i>	Leases UTU93014, UTU93250, UTU93251, UTU93252, and UTU 93260 intersect STATSGO2 soils associated with <i>Astragalus holmgreniorum</i> . No populations have been identified within the identified leases
<i>Astragalus iselyi</i>	Leases UTU93005, UTU93014, UTU93250, UTU93251, UTU93252, UTU93260, UTU93712, UTU93714, UTU93715, UTU93718, UTU93725, and UTU93732 intersect STATSGO2 soils associated with <i>Astragalus iselyi</i> . No populations have been identified within the identified leases
<i>Astragalus sabulosus</i>	Leases UTU93005, UTU93012, UTU93712, UTU93714, UTU93715, and UTU93718 intersect STATSGO2 soils associated with <i>Astragalus sabulosus</i> . No populations have been identified within the identified leases
<i>Astragalus welshii</i>	Leases UTU93261, and UTU93602 intersect STATSGO2 soils associated with <i>Astragalus welshii</i> . No populations have been identified within the identified leases
<i>Cryptantha compacta</i>	Leases UTU92677, UTU93002, UTU93003, UTU93004, UTU93612, UTU93645, UTU93646, and UTU93650 intersect STATSGO2 soils associated with <i>Cryptantha compacta</i> . No populations have been identified within the identified leases
<i>Cymopterus beckii</i>	Leases UTU92330, UTU92487, and UTU92670 intersect STATSGO2 soils associated with <i>Cymopterus beckii</i> . No populations have been identified within the identified leases
<i>Cymopterus trotteri</i>	Leases UTU93012, UTU93013, UTU93655, UTU93723, UTU93725, and UTU93732 intersect STATSGO2 soils associated with <i>Cymopterus trotteri</i> . No populations have been identified within the identified leases
<i>Dalea flavescens</i> var. <i>epica</i>	Leases UTU91305, UTU91306, UTU91308, UTU91334, UTU91340, UTU93005, UTU93008, UTU93010, UTU93012, UTU93013, UTU93014, UTU93252, UTU93260, UTU93711, UTU93712, UTU93714, UTU93715, UTU93718, UTU93723, UTU93724, UTU93725, and UTU93732 intersect STATSGO2 soils associated with <i>Dalea flavescens epica</i> . No populations have been identified within the identified leases
<i>Ericameria lignumviridis</i>	Leases UTU91058, UTU91060, UTU92330, UTU92487, and UTU92670 intersect STATSGO2 soils associated with <i>Ericameria lignumviridis</i> . No populations have been identified within the identified leases
<i>Erigeron kachinensis</i>	Lease UTU93014 intersect STATSGO2 soils associated with <i>Erigeron kachinensis</i> . No populations have been identified within the identified leases
<i>Erigeron maguirei</i>	Leases UTU92330, UTU92487, and UTU92670 intersect STATSGO2 soils associated with <i>Erigeron maguirei</i> . No populations have been identified within the identified leases
<i>Erigeron untermannii</i>	Leases UTU91936, UTU91937, UTU91938, UTU91946, UTU91949, UTU92313, UTU92314, UTU92679, UTU92698, UTU93605, UTU93656, UTU93901, UTU93902, UTU93903, and UTU93911 intersect STATSGO2 soils associated with <i>Erigeron untermannii</i> . No populations have been identified within the identified leases

Name	Background and Documentation for Species / Potential Habitat Occurrence in Leases
<i>Euphorbia nephradenia</i>	Leases UTU93651, and UTU93655 intersect STATSGO2 soils associated with <i>Euphorbia nephradenia</i> . No populations have been identified within the identified leases
<i>Jamesia tetrapetala</i>	Leases UTU92677, UTU93002, UTU93003, UTU93004, UTU93612, UTU93645, UTU93646, and UTU93650 intersect STATSGO2 soils associated with <i>Jamesia tetrapetala</i> . No populations have been identified within the identified leases
<i>Laphamia specicola</i>	Leases UTU93012, UTU93013, UTU93014, UTU93250, and UTU93251 intersect STATSGO2 soils associated with <i>Laphamia specicola</i> . No populations have been identified within the identified leases
<i>Lepidium huberi</i>	Leases UTU92312, UTU92712, UTU92713, UTU92714, UTU92765, UTU92766, UTU93695, UTU93696, UTU93962, and UTU93963 intersect STATSGO2 soils associated with <i>Lepidium huberi</i> . No populations have been identified within the identified leases
<i>Lomatium latilobum</i>	Leases UTU93012, UTU93013, UTU93014, UTU93250, UTU93251, UTU93252, UTU93260, UTU93651, UTU93655, UTU93723, UTU93725, and UTU93732 intersect STATSGO2 soils associated with <i>Lomatium latilobum</i> . No populations have been identified within the identified leases
<i>Lygodesmia grandiflora</i> var. <i>entrada</i>	Leases UTU93012, UTU93013, UTU93651, and UTU93655 intersect STATSGO2 soils associated with <i>Lygodesmia grandiflora entrada</i> . No populations have been identified within the identified leases
<i>Mentzelia goodrichii</i>	Leases UTU91936, UTU91937, UTU91938, UTU92679, UTU93604, and UTU93901 intersect STATSGO2 soils associated with <i>Mentzelia goodrichii</i> . No populations have been identified within the identified leases
<i>Mentzelia librina</i>	Leases UTU91305, UTU91306, and UTU91308 intersect STATSGO2 soils associated with <i>Mentzelia librina</i> . No populations have been identified within the identified leases
<i>Mentzelia shultziorum</i>	Leases UTU93014, UTU93250, and UTU93251 intersect STATSGO2 soils associated with <i>Mentzelia shultziorum</i> . No populations have been identified within the identified leases
<i>Oenothera acutissima</i>	Leases UTU92312, UTU92712, UTU92713, UTU92714, UTU92765, UTU92766, UTU93695, UTU93696, UTU93697, UTU93962, and UTU93963 intersect STATSGO2 soils associated with <i>Oenothera acutissima</i> . No populations have been identified within the identified leases
<i>Oreocarya creutzfeldtii</i>	Leases UTU91304, UTU91305, UTU91306, UTU91308, UTU91334, and UTU91340 intersect STATSGO2 soils associated with <i>Oreocarya creutzfeldtii</i> . No populations have been identified within the identified leases
<i>Pedimelum aromaticum</i> var. <i>tuhyi</i>	Leases UTU93014, UTU93250, UTU93251, UTU93252, and UTU93260 intersect STATSGO2 soils associated with <i>Pedimelum aromaticum tuhyi</i> . No populations have been identified within the identified leases
<i>Phemeranthus thompsonii</i>	Lease UTU91334 intersect STATSGO2 soils associated with <i>Phemeranthus thompsonii</i> . No populations have been identified within the identified leases
<i>Potentilla shockleyi</i> var. <i>ostleri</i>	Leases UTU92677, UTU93002, UTU93003, UTU93004, UTU93612, UTU93645, UTU93646, and UTU93650 intersect STATSGO2 soils associated with <i>Potentilla shockleyi ostleri</i> . No populations have been identified within the identified leases

Name	Background and Documentation for Species / Potential Habitat Occurrence in Leases
<i>Psorothamnus polydenius jonesii</i>	Leases UTU91334, UTU91340, UTU93005, UTU93008, UTU93010, UTU93711, UTU93718, UTU93723, UTU93724, and UTU93732 intersect STATSGO2 soils associated with <i>Psorothamnus polydenius jonesii</i> . No populations have been identified within the identified leases
<i>Sphaeralcea janeae</i>	Leases UTU93012, UTU93013, UTU93014, UTU93250, UTU93251, UTU93655, UTU93723, UTU93725, and UTU93732 intersect STATSGO2 soils associated with <i>Sphaeralcea janeae</i> . No populations have been identified within the identified leases
<i>Sphaeralcea psoraloides</i>	Leases UTU91334, UTU91340, and UTU93655 intersect STATSGO2 soils associated with <i>Sphaeralcea psoraloides</i> . No populations have been identified within the identified leases
<i>Thelesperma subnudum</i> var. <i>alpinum</i>	Leases UTU92330, UTU92487, UTU92670, UTU93261, and UTU93602 intersect STATSGO2 soils associated with <i>Thelesperma subnudum alpinum</i> . No populations have been identified within the identified leases
<i>Thelesperma subnudum</i> var. <i>maltiterrimum</i>	Leases UTU91068, UTU91936, UTU91937, UTU91938, UTU91946, UTU91949, UTU92679, UTU92683, UTU93604, UTU93605, UTU93901, and UTU93902 intersect STATSGO2 soils associated with <i>Thelesperma subnudum maltiterrimum</i> . No populations have been identified within the identified leases
<i>Townsendia strigosa prolixa</i>	Leases UTU92313, UTU92314, UTU92698, UTU93604, UTU93656, and UTU93692 intersect STATSGO2 soils associated with <i>Townsendia strigosa prolixa</i> . No populations have been identified within the identified leases

Given the lack of known populations for the above listed species and considering the implementation of the attached lease notices (UT-LN-49 & UT-LN-41) and Section 6 of the standard terms and conditions of the lease, a detailed analysis of these species is not warranted

Horseshoe milkvetch (*Astragalus equisolensis*)

Leases UTU92685, UTU92695, UTU92696, and UTU93646 intersect occupied habitat for Horseshoe milkvetch and UTU92685, UTU92695, and UTU93646 intersect known occurrences for the species. Seven additional leases have potential habitat for the species.

Using a 2-kilometer separation distance to delineate subpopulations, across the range of the species there are eight subpopulations with 1,339 acres of habitat within 300 feet of a known occurrence on BLM managed lands.

Within the project area, eight subpopulations intersect a lease with a total of 1,339 acres of occupied habitat (Table 75).

Table 75: Acres of occupied Horseshoe milkvetch habitat by subpopulation intersecting leases

Lease	1	2	3	4	5	6	Grand Total
UTU92684			0.0				0.0

Lease	1	2	3	4	5	6	Grand Total
UTU92685						28.5	28.5
UTU92695		6.3					6.3
UTU92696		1.7					1.7
UTU93646	10.0						10.0
Outside Leases	14.4	1,079.3	139.3	6.5	6.5	46.5	1,292.5
Grand Total	24.5	1,087.3	139.3	6.5	6.5	75.0	1,339.1

Table 76: Estimated disturbance to occupied Horseshoe milkvetch habitat

Lease	1	2	3	4	5	6	Grand Total
UTU92684			0.0				0.0
UTU92685						0.1	0.1
UTU92695		0.0					0.0
UTU92696		0.0					0.0
UTU93646	0.0						0.0
Grand Total	0.0	0.0	0.0	0.0	0.0	0.1	0.2

Using the foreseeable disturbance assumptions in Section 3.2.1, and assuming random placement of disturbance within the area, 0.2 acres of occupied Horseshoe milkvetch habitat would be directly impacted by the development, representing less than 0.1% of occupied habitat of the intersecting subpopulations and less than 0.1% of the occupied habitat across the range of the species on BLM. Given the requirements to perform surveys and avoid individuals where feasible, it is expected that impacts to occupied habitat at the lease development stage would be less than those presented.

Given the low expected disturbance relative to the available habitat and considering the implementation of the attached lease notices (UT-LN-49 & UT-LN-41) and Section 6 of the standard terms and conditions of the lease, a detailed analysis of the impacts on Horseshoe milkvetch is not warranted.

Hamilton milkvetch (*Astragalus hamiltonii*)

Lease UTU93947 intersects known occurrences for Hamilton milkvetch. Leases UTU92679, UTU92680, UTU92682, UTU92683, UTU92684, UTU93946, UTU93947, and UTU93948 intersect potential habitat for the species.

Using a 2-kilometer separation distance to delineate subpopulations, across the range of the species there are eight subpopulations with 1,778 acres of habitat within 300 feet of a known occurrence on BLM managed lands.

Within the project area, one subpopulation intersects a lease with a total of 13 acres of occupied habitat.

Using the foreseeable disturbance assumptions in Section 3.2.1, and assuming random placement of disturbance within the area, 0.3 acres of occupied Horseshoe milkvetch habitat would be directly impacted by the development, representing 2.1% of occupied habitat of the intersecting isolated subpopulation and less than 0.1% of the occupied habitat across the range of the species on BLM. Given the requirements to perform surveys and avoid individuals where feasible, it is expected that impacts to occupied habitat at the lease development stage would be less than those presented.

Given the low expected disturbance relative to the available habitat and considering the implementation of the attached lease notices (UT-LN-49 & UT-LN-41) and Section 6 of the standard terms and conditions of the lease, a detailed analysis of the impacts on Hamilton milkvetch is not warranted.

Lost Creek buckwheat (*Erigonoum brevicaule* var. *mitophyllum*)

Leases UTU91055, UTU92311, UTU92313, and UTU92330 intersect known occurrences for Lost Creek buckwheat. Two additional leases (UTU92328 and UTU93252) intersect STATSGO soils associated with the species.

Using a 2-kilometer separation distance to delineate subpopulations, across the range of the species there are two subpopulations with 155.8 acres of habitat within 300 feet of a known occurrence on BLM managed lands. Both BLM subpopulations intersect leases (Table 77).

Table 77: Acres of occupied Lost Creek buckwheat habitat by subpopulation intersecting leases

Lease	1	2	Grand Total
UTU91055	63.3		63.3
UTU92311	18.3		18.3
UTU92313	6.5		6.5
UTU92330		6.5	6.5
Outside lease	61.3		61.3
Grand Total	149.3	6.5	155.8

Table 78: Estimated disturbance to occupied Lost Creek buckwheat habitat

Lease	1	2	Grand Total
UTU91055	0.5		0.5
UTU92311	0.6		0.6
UTU92313	0.2		0.2

UTU92330		0.0	0.0
Grand Total	1.3	0.0	1.3

Using the foreseeable disturbance assumptions in Section 3.2.1, and assuming random placement of disturbance within the area, 1.3 acres of occupied Lost Creek buckwheat habitat would be directly impacted by the development, representing between 0.5 and 0.9% of occupied habitat of the intersecting subpopulations and 0.9% of the occupied habitat across the range of the species on BLM. Given the requirements to perform surveys and avoid individuals where feasible, it is expected that impacts to occupied habitat at the lease development stage would be less than those presented. Given the low expected disturbance relative to the available habitat and considering the implementation of the attached lease notices (UT-LN-49 & UT-LN-41) and Section 6 of the standard terms and conditions of the lease, a detailed analysis of the impacts on Lost Creek buckwheat is not warranted.

Flat Tops buckwheat (*Erigeron smithii*)

Lease 93612 intersect known occurrences for Flat Tops buckwheat. One additional lease (UTU93611) has intersect STATSGO soils associated with the species.

Using a 2-kilometer separation distance to delineate subpopulations, across the range of the species there are nine subpopulations with 1,627 acres of habitat within 300 feet of a known occurrence on BLM managed lands.

Within the project area, one subpopulation intersects a lease with a total of 621 acres of occupied habitat

Using the foreseeable disturbance assumptions in Section 3.2.1, and assuming random placement of disturbance within the area, 0.5 acres of occupied Flat Tops buckwheat habitat would be directly impacted by the development, representing less than 0.1% within the subpopulation and of the occupied habitat across the range of the species on BLM. Given the requirements to perform surveys and avoid individuals where feasible, it is expected that impacts to occupied habitat at the lease development stage would be less than those presented.

Given the low expected disturbance relative to the available habitat and considering the implementation of the attached lease notices (UT-LN-49 & UT-LN-41) and Section 6 of the standard terms and conditions of the lease, a detailed analysis of the impacts on Flat Tops buckwheat is not warranted.

Arapien stick-leaf (*Mentzelia argillosa*)

Leases UTU91055, UTU92311, UTU92328, UTU92330, and UTU93252 intersect known occurrences for Arapien stick-leaf. Six additional leases (UTU91058, UTU91060, UTU92313, UTU92314, UTU92315, and UTU92316) intersect STATSGO soils associated with the species.

Using a 2-kilometer separation distance to delineate subpopulations, across the range of the species there are ten subpopulations with 943 acres of habitat within 300 feet of a known occurrence on BLM managed lands.

Within the project area, four subpopulations intersect a lease with a total of 640 acres of occupied habitat (Table 79).

Table 79: Acres of occupied Arapian stick-leaf habitat by subpopulation intersecting leases

Lease	1	3	6	7	Grand Total
UTU91055		136.4			136.4
UTU92311		25.9			25.9
UTU92328			27.6		27.6
UTU92330				61.4	61.4
UTU93252	6.5				6.5
Outside Lease	272.6	55.9	47.6	6.5	382.6
Grand Total	279.1	218.2	75.2	67.9	640.4

Table 80: Estimated disturbance to occupied Arapian stick-leaf habitat

Lease	1	3	6	7	Grand Total
UTU91055		1.0			1.0
UTU92311		0.9			0.9
UTU92328			0.2		0.2
UTU92330				0.3	0.3
UTU93252	0.1				0.1
Grand Total	0.1	1.9	0.2	0.3	2.4

Using the foreseeable disturbance assumptions in Section 3.2.1, and assuming random placement of disturbance within the area, 2.4 acres of occupied Arapian stick-leaf habitat would be directly impacted by the development, representing between less than 0.1% and 0.8% of occupied habitat of the intersecting subpopulations and 0.3% of the occupied habitat across the range of the species on BLM. Given the requirements to perform surveys and avoid individuals where feasible, it is expected that impacts to occupied habitat at the lease development stage would be less than those presented.

Given the low expected disturbance relative to the available habitat and considering the implementation of the attached lease notices (UT-LN-49 & UT-LN-41) and Section 6 of the standard terms and conditions of the lease, a detailed analysis of the impacts on Horseshoe milkvetch is not warranted.

Barneby's cryptantha (*Oreocarya barnebyi*)

Leases UTU93670, UTU93671, UTU93672, UTU93673, UTU93675, UTU93686, UTU93692, UTU93725, UTU93902, UTU93903, UTU93904, UTU93905, UTU93906, UTU93907, and UTU93931 have known population of Barneby's catseye. Additionally, leases UTU91311, UTU91949, UTU91950, UTU91952, UTU92686, UTU92708, UTU92709, UTU92710, UTU92711, UTU92712, UTU93260, UTU93645, UTU93651, UTU93662, UTU93663,

UTU93664, UTU93665, UTU93666, UTU93669, UTU93670, UTU93671, UTU93672, UTU93673, UTU93675, UTU93676, UTU93679, UTU93681, UTU93684, UTU93685, UTU93686, UTU93687, UTU93688, UTU93692, UTU93696, UTU93697, UTU93884, UTU93902, UTU93903, UTU93904, UTU93905, UTU93906, UTU93907, UTU93910, UTU93911, UTU93913, UTU93921, UTU93923, UTU93924, UTU93929, UTU93931, UTU93935, UTU93936, UTU93937, UTU93938, UTU93939, UTU93959, UTU93965, UTU94135, UTU93922, UTU93923, UTU93924, UTU93925, UTU93927, UTU93928, UTU93929, UTU93930, UTU93933, UTU93934, UTU93935, UTU93936, UTU93937, UTU93938, UTU93939, UTU93959, UTU93963, UTU93965, UTU93968, and UTU94135 intersect STATSGO2 soils associated with Barneby's catseye and are found on the Green River Formation.

Using a 2-kilometer separation distance to delineate subpopulations, across the range of the species there are 39 subpopulations with 1,034 acres of habitat within 300 feet of a known occurrence on BLM managed lands.

Within the project area, eight subpopulations intersects a lease with a total of 136 acres of occupied habitat (Table 81).

Table 81: Acres of occupied Barneby's catseye habitat by subpopulation intersecting leases

Lease	3	4	5	6	7	8	9	12	16	21	27	30	Grand Total
UTU93670						19.2	1.6						20.8
UTU93671					6.5								6.5
UTU93672				26.3									26.3
UTU93673				27.5									27.5
UTU93675									19.0				19.0
UTU93686								16.2					16.2
UTU93692											6.5		6.5
UTU93725			6.5										6.5
UTU93902		17.5											17.5
UTU93903	27.4												27.4
UTU93904		38.2											38.2
UTU93905		6.1											6.1
UTU93906		72.2											72.2
UTU93907		9.3											9.3
UTU93910												13.7	13.7
UTU93931										6.5			6.5
Outside leases	6.5	108.4	82.4	11.0		73.9	21.0	3.3	6.9		6.5	44.5	364.2
Grand Total	33.8	251.6	88.9	64.8	6.5	93.1	22.5	19.4	25.9	6.5	13.0	58.3	684.2

Table 82: Estimated disturbance to occupied Barneby's catseye habitat

Lease	3	4	5	6	7	8	9	12	16	21	27	30	Grand Total
UTU93670						0.8	0.1						0.9

Lease	3	4	5	6	7	8	9	12	16	21	27	30	Grand Total
UTU93671					0.3								0.3
UTU93672				1.2									1.2
UTU93673				1.2									1.2
UTU93675									0.8				0.8
UTU93686								0.7					0.7
UTU93692											0.3		0.3
UTU93725			0.3										0.3
UTU93902		0.2											0.2
UTU93903	0.4												0.4
UTU93904		1.7											1.7
UTU93905		0.3											0.3
UTU93906		3.2											3.2
UTU93907		0.4											0.4
UTU93910												0.6	0.6
UTU93931										0.3			0.3
Grand Total	0.4	5.7	0.3	2.4	0.3	0.8	0.1	0.7	0.8	0.3	0.3	0.6	12.6

Using the foreseeable disturbance assumptions in Section 3.2.1, 152 acres of disturbance would occur within the leases that intersect occupied Barneby's catseye habitat. Assuming random placement of disturbance within the area, 12.6 acres of occupied Barneby's catseye habitat would be directly impacted by the development, representing between 0.3 and 4.4% of occupied habitat of the intersecting subpopulations and 1.2% of the occupied habitat across the range of the species on BLM. Given the requirements to perform surveys and avoid individuals where feasible, it is expected that impacts to occupied habitat at the lease development stage would be less than those presented.

Given the low expected disturbance relative to the available habitat and considering the implementation of the attached lease notices (UT-LN-49 & UT-LN-41) and Section 6 of the standard terms and conditions of the lease, a detailed analysis of the impacts on Barneby's catseye is not warranted.

Ward's beardtongue (*Penstemon wardii*)

Leases UTU91055, UTU92311, UTU92314, UTU92328, UTU92330 intersect known occurrences for Ward's penstemon. Seven additional leases (UTU91058, UTU91060, UTU92312, UTU92313, UTU92315, UTU92316, UTU93252) intersect STATSGO soils associated with the species.

Using a 2-kilometer separation distance to delineate subpopulations, across the range of the species there are 25 subpopulations with 595 acres of habitat within 300 feet of a known occurrence on BLM managed lands.

Within the project area, five subpopulations intersect a lease with a total of 174 acres of occupied habitat (Table 83) Acres of occupied Ward's penstemon habitat by subpopulation intersecting leases

Table 83 Acres of occupied Ward's penstemon habitat by subpopulation intersecting leases

Lease	1	5	12	13	18	Grand Total
UTU91055	25.7					25.7
UTU92311					16.2	16.2
UTU92314		32.4				32.4
UTU92328			11.2			11.2
UTU92330				19.4		19.4
Outside Leases	62.9		6.5		0.0	69.4
Grand Total	88.6	32.4	17.7	19.4	16.2	174.3

Table 84: Estimated disturbance to occupied Ward's penstemon habitat

Lease	1	5	12	13	18	Grand Total
UTU91055	0.2					0.2
UTU92311					0.6	0.6
UTU92314		0.1				0.1
UTU92328			0.1			0.1
UTU92330				0.1		0.1
Grand Total	0.2	0.1	0.1	0.1	0.6	1.0

Using the foreseeable disturbance assumptions in Section 3.2.1, and assuming random placement of disturbance within the area, 1.0 acres of occupied Ward's penstemon habitat would be directly impacted by the development, representing between 0.2 and 3.4% of occupied habitat of the intersecting subpopulations and 0.2% of the occupied habitat across the range of the species on BLM. Given the requirements to perform surveys and avoid individuals where feasible, it is expected that impacts to occupied habitat at the lease development stage would be less than those presented.

Given the low expected disturbance relative to the available habitat and considering the implementation of the attached lease notices (UT-LN-49 & UT-LN-41) and Section 6 of the standard terms and conditions of the lease, a detailed analysis of the impacts on Horseshoe milkvetch is not warranted.

Utah phacelia (*Phacelia utahensis*)

Leases UTU91055, UTU92311, UTU92328, UTU92330, and UTU93252 intersect occupied habitat for Utah phacelia and leases and leases UTU91055, UTU92311, UTU92328, and UTU92330 intersect known occurrences for the species. Seven additional leases (UTU91058, UTU91060, UTU92313, UTU92314, UTU92315, and UTU92316) intersect STATSGO soils associated with the species.

Using a 2-kilometer separation distance to delineate subpopulations, across the range of the species there are twelve subpopulations with 1,380 acres of habitat within 300 feet of a known occurrence on BLM managed lands.

Within the project area, four subpopulations intersect a lease with a total of 1,048 acres of occupied habitat (Table 85).

Table 85: Acres of occupied Utah phacelia habitat by subpopulation intersecting leases

Lease	1	2	5	10	Grand Total
UTU91055	191.8				191.8
UTU92311				22.3	22.3
UTU92328			19.5		19.5
UTU92330			46.5		46.5
UTU93252		49.5			49.5
Outside lease	139.4	536.1	42.8	0.1	718.4
Grand Total	331.2	585.6	108.8	22.4	1,048.0

Table 86: Estimated disturbance to occupied Utah phacelia habitat

Lease	1	2	5	10	Grand Total
UTU91055	1.4				1.4
UTU92311				0.8	0.8
UTU92328			0.1		0.1
UTU92330			0.2		0.2
UTU93252		0.5			0.5
Grand Total	1.4	0.5	0.4	0.8	3.0

Using the foreseeable disturbance assumptions in Section 3.2.1, and assuming random placement of disturbance within the area, 3.0 acres of occupied Utah phacelia habitat would be directly impacted by the development, representing between less than 0.1 and 3.4% of occupied habitat of the intersecting subpopulations and 0.2% of the occupied habitat across the range of the species on BLM. Given the requirements to perform surveys and avoid individuals where feasible, it is expected that impacts to occupied habitat at the lease development stage would be less than those presented.

Given the low expected disturbance relative to the available habitat and considering the implementation of the attached lease notices (UT-LN-49 & UT-LN-41) and Section 6 of the standard terms and conditions of the lease, a detailed analysis of the impacts on Horseshoe milkvetch is not warranted.

Sigurd Easter daisy (*Townsendia jonesii* var. *lutea*)

Lease UTU92330 intersect known occurrences for Sigurd Easter daisy. Nineteen additional leases (UTU91055, UTU91058, UTU91060, UTU92311, UTU92312, UTU92313, UTU92314,

UTU92315, UTU92316, UTU92328, UTU92487, UTU92765, UTU92766, UTU92807, UTU93252, UTU93602, UTU93603, UTU93604, and UTU93605) intersect STATSGO soils associated with the species.

Using a 2-kilometer separation distance to delineate subpopulations, across the range of the species there are twelve subpopulations with 117 acres of habitat within 300 feet of a known occurrence on BLM managed lands.

Within the project area, one subpopulation intersects a lease with a total of 13 acres of occupied habitat

Using the foreseeable disturbance assumptions in Section 3.2.1, and assuming random placement of disturbance within the area, 0.7 acres of occupied Sigurd Easter daisy habitat would be directly impacted by the development, representing 0.5% of occupied habitat of the intersecting subpopulation and less than 0.1% of the occupied habitat across the range of the species on BLM. Given the requirements to perform surveys and avoid individuals where feasible, it is expected that impacts to occupied habitat at the lease development stage would be less than those presented.

Given the low expected disturbance relative to the available habitat and considering the implementation of the attached lease notices (UT-LN-49 & UT-LN-41) and Section 6 of the standard terms and conditions of the lease, a detailed analysis of the impacts on Horseshoe milkvetch is not warranted.

Yucca sterilis

Leases UTU92677, UTU92695, UTU93670, and UTU93905 intersect known occurrences for the species. All other leases in the Vernal FO with sandy soils may provide suitable habitat for the species.

Using a 2-kilometer separation distance to delineate subpopulations, across the range of the species there are twenty-nine subpopulations with 596 acres of habitat within 300 feet of a known occurrence on BLM managed lands.

Within the project area, four subpopulations intersect a lease with a total of 178 acres of occupied habitat (Table 87).

Table 87: Acres of occupied *Yucca sterilis* habitat by subpopulation intersecting leases

Lease	1	7	11	23	Grand Total
UTU92677		15.4			15.4
UTU92695			3.8		3.8
UTU93670	19.4				19.4
UTU93905				6.5	6.5
Outside lease	129.8		2.7		132.5
Grand Total	149.2	15.4	6.5	6.5	177.5

Table 88: Estimated disturbance to occupied *Yucca sterilis* habitat

Lease	1	7	11	23	Grand Total
UTU92677		0.2			0.2
UTU92695			0.0		0.0
UTU93670	0.9				0.9
UTU93905				0.3	0.3
Grand Total	0.9	0.2	0.0	0.3	1.3

Using the foreseeable disturbance assumptions in Section 3.2.1, and assuming random placement of disturbance within the area, 1.3 acres of occupied *Yucca sterilis* habitat would be directly impacted by the development, representing between 0.6 and 4.4% of occupied habitat of the intersecting subpopulations and 0.2% of the occupied habitat across the range of the species on BLM. Given the requirements to perform surveys and avoid individuals where feasible, it is expected that impacts to occupied habitat at the lease development stage would be less than those presented.

Given the low expected disturbance relative to the available habitat (UT-LN-49 & UT-LN-41) and considering the implementation of the attached lease notices and Section 6 of the standard terms and conditions of the lease, a detailed analysis of the impacts on Horseshoe milkvetch is not warranted.

AIB-23 Vegetation Communities

How would potential development of the leases affect terrestrial vegetation communities and the animals that use them as habitat?

Potential development of the leases could result in new surface disturbances and the potential loss of vegetation over approximately 5,927.5 acres of the total 239,923.42 acres, based on the foreseeable development described in Section 3.2.1. Any activities that involve surface disturbances or direct impacts to resources would need to be authorized as lease operations requiring additional site specific NEPA analyses during the APD stage. Reclamation provisions and procedures, including re-vegetation with an appropriate seed mix based on ecological site, elevation, and topography, would be included in the APD analysis.

Terrestrial upland vegetation within the leases is dominated by globally and regionally common native vegetation communities including Great Basin & Intermountain Tall Sagebrush Shrubland & Steppe, Great Basin Saltbush Scrub, Southern Rocky Mountain Two-Needle Pinyon – One Seed Juniper Woodland, Great Basin & Intermountain Dry Shrubland & Grassland, and Great Basin & Intermountain Dwarf Sagebrush Shrubland & Steppe. Estimates of native vegetation types (National Vegetation Classification Macro-Groups) represented within the leases are presented in Table 89 (LANDFIRE, 2016).

Table 89: National Vegetation Classification (NVC) Macro-Group Acres¹ within Leases

Macro-Group	GIS Acres	Estimated Disturbance Acres	Percent Disturbed Within Leases	Percent Disturbed within Encompassing Watersheds
Great Basin & Intermountain Tall Sagebrush Shrubland & Steppe	65,035.7	1,961.9	3.0%	0.1%
Great Basin Saltbush Scrub	55,923.9	1,316.1	2.4%	0.1%
Southern Rocky Mountain Two-needle Pinyon - One-seed Juniper Woodland	29,726.9	845.2	2.8%	0.1%
Great Basin & Intermountain Dry Shrubland & Grassland	24,932.2	207.6	0.8%	0.0%
Great Basin & Intermountain Dwarf Sagebrush Shrubland & Steppe	18,116.7	461.2	2.5%	0.1%
Western North American Cool Semi-Desert Ruderal Scrub & Grassland	15,211.9	414.0	2.7%	0.1%
Intermountain Basins Cliff Scree & Badland Sparse Vegetation	14,860.9	288.0	1.9%	0.1%
Intermountain Singleleaf Pinyon - Utah Juniper - Western Juniper Woodland	6,016.9	31.5	0.5%	0.0%
Southern Rocky Mountain Montane Shrubland	2,397.3	73.5	3.1%	0.0%
Western North American Temperate Cliff Scree & Rock Vegetation	1,613.2	53.3	3.3%	0.1%
Permanent Pasture & Grass Hay Field ²	1,433.5	17.9	1.2%	0.0%
Southern Rocky Mountain Lower Montane Forest	1,059.0	43.8	4.1%	0.0%
Developed-Roads	1,039.5	13.6	1.3%	0.0%
Rocky Mountain Subalpine-High Montane Conifer Forest	869.8	27.5	3.2%	0.0%
Interior West Ruderal Flooded & Swamp Forest	862.4	24.2	2.8%	0.1%
Open Water	760.7	17.3	2.3%	0.0%
Shrub & Herb Developed Vegetation ²	455.0	6.6	1.5%	0.0%
Rocky Mountain & Vancouverian Subalpine-High Montane Mesic Meadow	407.6	13.1	3.2%	0.0%
Recently Disturbed or Modified	362.8	15.8	4.4%	0.1%
Southwest Riparian Forest	289.8	7.4	2.6%	0.1%
Central Rocky Mountain Montane-Foothill Grassland & Shrubland	224.6	1.0	0.4%	0.0%
Central Rocky Mountain Dry Lower Montane-Foothill Forest	210.7	1.6	0.7%	0.0%
Developed-Low Intensity	204.2	2.6	1.3%	0.0%
Close Grain Crop ²	201.3	1.6	0.8%	0.0%
Western North American Montane-Subalpine Wet Shrubland & Wet Meadow	194.8	7.4	3.8%	0.0%
Warm & Cool Desert Alkali-Saline Wetland	175.4	4.8	2.8%	0.0%
Quarries-Strip Mines-Gravel Pits-Energy Development	149.1	0.7	0.5%	0.0%
Western North American Ruderal Grassland & Shrubland	149.1	4.6	3.1%	0.0%
Great Basin & Intermountain Xeric-Riparian Scrub	84.2	0.0	0.0%	0.0%

Macro-Group	GIS Acres	Estimated Disturbance Acres	Percent Disturbed Within Leases	Percent Disturbed within Encompassing Watersheds
Rocky Mountain & Great Basin Montane Riparian Forest	74.9	1.1	1.4%	0.0%
Developed-Medium Intensity	69.7	0.0	0.0%	0.0%
Fallow Field ²	61.5	0.0	0.0%	0.0%
Tree Developed Vegetation ²	50.4	0.5	1.1%	0.0%
Arid West Interior Freshwater Emergent Marsh	38.4	0.7	1.9%	0.0%
Corn Crop ²	32.4	0.2	0.6%	0.0%
Western North American Ruderal Wet Shrubland Meadow & Marsh	13.0	0.2	1.3%	0.0%
Cool Interior Chaparral	6.5	0.0	0.0%	0.0%
Warm Interior Chaparral	4.1	0.1	3.6%	0.0%
Developed-High Intensity	0.4	0.0	0.0%	0.0%
Grand Total	243,320.4	5,866.9		

¹Landfire Products are developed from remote sensed data and the classification is best suited for large-scale planning and data should be considered as representative of the habitat present but not exact.

²Very likely habitat types that are miscategorizations

The potential impacts to various vegetation communities are highly dependent on the siting of facilities during the APD stage. Based on the analysis assumptions in Section 3.2.1, the median percentage of disturbance to vegetation communities at the lease spatial scales would be 1.9% and at watershed level scale would be less than 0.05% assuming random disturbance distribution. Given the low level of disturbance to vegetation communities when placed in the watershed and landscape context, a detailed analysis of the impacts on vegetation communities is not warranted.

Animal community composition is correlated with the composition and structure of vegetation communities. Therefore, impacts associated with future development are expected to align with trends observed in vegetation communities. Various wildlife species inhabit the impacted vegetation communities, including rodents (e.g., mice, voles, kangaroo rats), jackrabbits, foxes, coyotes, and reptiles such as snakes and lizards. A wide variety of insect species from numerous orders, including pollinators, are also present in this ecotype. All wildlife species play roles in various food webs as either predators or prey, and direct habitat loss could decrease the prey base for raptors, which rely on rabbits, mice, and prairie dogs. Additionally, a decline in insect diversity and abundance may reduce the prey base for bats and lead to a decrease in pollinators for plant communities. Additional information on Wildlife is discussed in AIB-9, AIB-21, AIB-22, and AIB-26AIB-25.

The potential impacts of future development on the leases' vegetation and associated animal communities will occur within the broader context of relevant past, present, and reasonably foreseeable future actions. This includes energy and mineral development and the conversion of native vegetation communities to agricultural or rural development. Other factors include grazing across all land ownership types, existing transmission powerlines, existing interstate transmission pipelines, paved and unpaved roads, and community trends related to global climate change.

AIB-24 Visual Resources

How would potential development of the leases affect the visual resources?

The total acres available for lease will be 239,923, 7% percent or 15, 913 acres of which are located within Visual Resource Management (VRM) Class 2, 56% or 135,152 acres are located within VRM Class 3, 32% or 77,149 acres are within VRM Class 4 and 5% or 11,709 acres are do not have a VRM class due to them being on private land. Management goals and objectives for VRM Class 2 are to retain the existing character of the landscape and allow a low level of change that should not attract the attention of a casual observer. Management goals and objectives for VRM Class 3 allow for a moderate degree of change or visual contrast with the landscape. Management activities may attract the attention of the casual observer but should not dominate the view of the casual observer. The management objective for VRM Class 4 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. Management activities may dominate the view and may be the major focus of viewer attention. However, in all VRM Classes, the impact of these activities should be minimized through careful siting, minimal disturbance, and repeating the basic elements of form, line, color, and texture within the existing setting (BLM, 1984).

Leases that are in VRM Class II are within areas identified as NSO or have timing limit/controlled surface use. Leases in VRM Class III, IV are located within areas that have variations in the topographic relief and landform, line, texture, and color. The majority of the leases have minor linear disturbances such as roads. For these reasons, potential changes or visible contrast with the form, line, texture, and color of the characteristic landscape are likely to be low for these leases and would meet the prescribed objectives for VRM management. VRM resources will also be analyzed at the APD stage.

AIB-25 Water Resources (Groundwater and Surface water)

How would potential development of the leases affect groundwater and surface water quality and quantity?

Surface and Groundwater Needs/Uses

Water is necessary during the drilling, completion, production, and reclamation phases of development to varying degrees. Sources obtained from aquifers and surface water could result in the drawing down of the water table and reduction of available water resources for wildlife, vegetation, springs, streams, or public consumption. High volume long-term withdrawal could potentially affect local groundwater flow patterns and water levels of aquifers. Surface water withdrawal impacts river and stream elevations and other surface water beneficial uses and users within each watershed. Water needs for drilling and completion activities vary throughout the state with greater demand use for mining purposes in areas with extensive oil and gas development.

Within the Uintah Basin, where most of the leases are located, extensive drilling for gas in tight sandstones in the eastern part of the Uintah Basin enhanced oil recovery (EOR) programs, called

waterflooding recovery, creates a need for water. This process involves injecting oil-bearing sandstone reservoirs with water to push remaining oil towards producing wells to increase recovery. Waterflooding (EOR) projects use a variety of freshwater and recycled produced water, which creates additional demand on freshwater supplies. Compatible produced water from gas wells has also increasingly been transported to oil fields undergoing EOR.

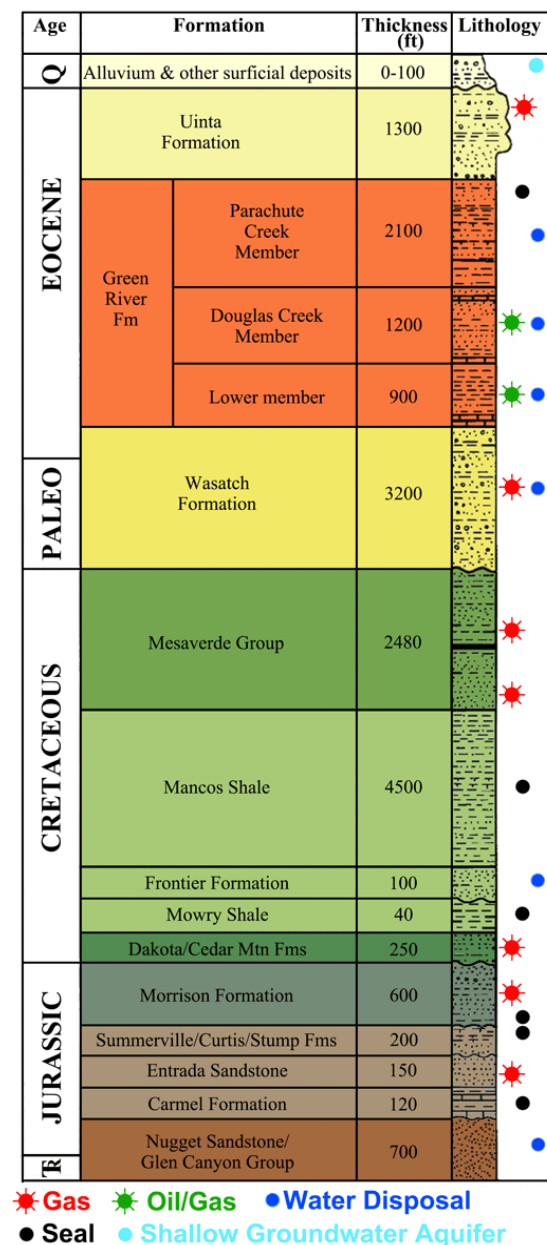


Figure 2: Stratigraphic column Utah Geological Survey, 2018. Modified from Hintze and Kowallis (2009), Geologic History of Utah.

disposal, evaporation, or circulation based on types of open or closed loop drilling systems.

Finally, about 60 percent of the produced water in the Uintah Basin is injected via wells into porous rock at a sufficient depth as to not cause contamination of shallow freshwater aquifers (Utah Geological Survey, 2018). Reinjection of excess produced water is a common practice in other areas of Utah per DOGM records. The quantity and quality of water used, produced, and disposed of, or re-used, varies enormously depending on local geology, financial constraints, and regulations, (American Geosciences Institute, 2018). The amount of water used depends on the rock formation, the operator, whether the well is vertical or horizontal, and the number of portions (or stages) of the well that are fractured. There is a high degree of variability in quantities of water needed for drilling operations. The U.S. Geological Survey (USGS) estimates that water use per well can range from 1.5 million gallons to about 16 million gallons throughout the be productive life of the well (USGS, 2023). The amounts of water depletion are also highly variable because much of the water that is produced is a byproduct and is often recycled from or reused for other nearby operations depending on local conditions. Surface waters and produced waters are typically used for dust suppression along routes during operational periods and these sources and associated water rights are presented at the APD stage.

Figure 2 shows the stratigraphic column from the surface down through the Upper Triassic-Lower Jurassic-age Nugget Sandstone in the Uinta Basin.

Locally the water use for drilling, completion and production phases of development has been estimated for the leases with the amounts (bbls water) presented in Table 3 in Section 3.2.1. The amounts of depletion from these sources are based on several factors such as re-injection, re-use,

Depletion amounts within the Colorado River watersheds are subject to the Colorado River Endangered fish recovery program fees and rules. The Utah Division of Water Rights manages the water rights necessary for each phase of development and is responsible for the adjudication and allocation of water uses throughout the state with considerations for impairment to other water users.

The Utah Geological Survey produced a Survey Note regarding water use and production within the Uintah Basin, where the Vernal FO leases are located (Volume 50, No 2). The study contains an evaluation of the thickness, structure, porosity, permeability, water quality, and temperature of all aquifer/reservoir units in the basin from the Eocene-age Green River Formation through the Jurassic-age Glen Canyon Group. Large volumes of produced saline water are typically disposed of by several techniques as shown in Figure 3. Other primary aquifers in the lease areas are the alluvial aquifers of the Basin and Range which have found in thick deposits of basin fill between the mountain ranges and the carbonate aquifers that exist in the mountain ranges where carbonate rock has undergone fracturing for groundwater flow. The Central Mountains of northeastern and central Utah contain alluvial aquifers from rivers and floodplains in sedimentary and alluvial fill.

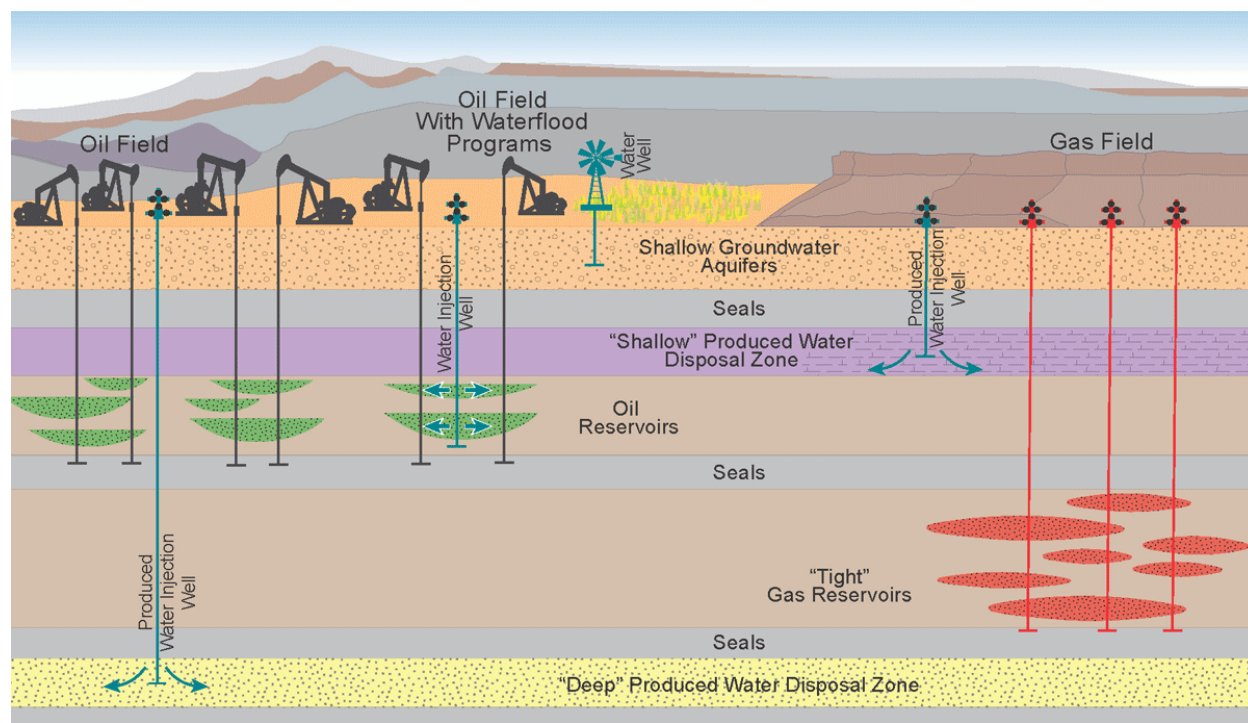


Figure 3 Utah Geologic Survey, 2018. Schematic diagram showing oil and gas wells and hypothetical zones to dispose of the produced water.

The source, volume of water, and transportation methods involved is identified in the surface use plan at the APD stage per 43 CFR Subpart 3171. 43 CFR Subpart 3171 requires the submission of a drilling plan and surface use management plan where the source and transportation of project water is identified. This section was analyzed in brief because site-specific SOPs, BMPs, COAs, and lease stipulations attached to each lease would minimize impacts from the Proposed

Action to groundwater resources because surface disturbing activities would occur outside of areas where surface water is present (which influences groundwater), refer to UT-S-123 in Appendix B for further details.

The potential development of leases would result in water usage of 1,980,133 bbl for leases in Vernal FO and 30,338 bbl for the leases in the other FOs (See Section 3.2.1). The overall depletion amount would be based on percentages of water re-used or reinjected at various stages of development and is unknown at this stage. Basin wide potential demand on water resources information is presented in this section. This section has been analyzed in brief because detailed analysis at this stage would be speculative beyond a basin level. These required volumes when compared to other beneficial uses and volumes in all the water basins are minimal and do not necessitate a detailed analysis at this stage. Potential site-specific impacts relating to future authorizations would be reviewed and possibly analyzed in detail when an APD is received.

Water Quality Protection

The BLM has reviewed the leases for proximity of Sole Source Aquifers or Public Drinking Water Source Protection Zones as designated and delineated by the U.S. Environmental Protection Agency (EPA) and State of Utah Division of Drinking Water. Leases that have been identified within these protection zones have a lease notice and or stipulation attached. Refer to UT-LN-56 and UT-LN-58 in Appendix B for further details. Three leases are within this Lease Sale are within delineated groundwater source protection zones see table below for details see Tables 29 and 30 below. No sole source aquifers were identified that intersect the leases.

Table 90 Groundwater Protection Zones

Parcel ID	ProtZone	SYSTEM NAME	FACILITY NAME	TYPE	LONGITUDEDD	LATITUDEDD
UTU 092312	1	AURORA CITY	STANDBY WELL	Well	-111.94843	38.92641
UTU 092312	2	AURORA CITY	STANDBY WELL	Well	-111.94843	38.92641
UTU 092316	2	SIGURD TOWN WATER SYSTEM	NORTH SPRING	Spring	-111.907839	38.785195
UTU 092312	3	AURORA CITY	STANDBY WELL	Well	-111.94843	38.92641
UTU 092316	3	SIGURD TOWN WATER SYSTEM	NORTH SPRING	Spring	-111.907839	38.785195
UTU 092316	3	SIGURD TOWN WATER SYSTEM	CARTER SPRING	Spring	-111.914666	38.783057
UTU 092312	4	AURORA CITY	CEMETERY WELL	Well	-111.938814	38.925348
UTU 092312	4	AURORA CITY	STANDBY WELL	Well	-111.94843	38.92641
UTU 092316	4	SIGURD TOWN WATER SYSTEM	INSPIRATION SPRING	Spring	-111.927084	38.786683
UTU 092316	4	SIGURD TOWN WATER SYSTEM	NORTH SPRING	Spring	-111.907839	38.785195
UTU 092316	4	SIGURD TOWN WATER SYSTEM	WILLOW SPRING	Spring	-111.91434	38.78517
UTU 092316	4	SIGURD TOWN WATER SYSTEM	CARTER SPRING	Spring	-111.914666	38.783057
UTU 093982	4	MANILA TOWN WATER SYSTEM	TANK SITE WELL 1	Well	-109.860115	40.958224
Per Utah R309-600-9						
(i) Zone one is the area within a 100-foot radius from the wellhead or margin of the collection area.						
(ii) Zone two is the area within a 250-day ground-water time of travel to the wellhead or margin of the collection area, the boundary of the aquifer (s) which supplies water to the ground-water source, or the groun-water divide, whichever is closer.						
(iii) Zone three (waiver criteria zone) is the area within a 3-year ground-water time of travel to the wellhead or margin of the collection area, the boundary of the aquifer(s) which supplies water to the ground-water source, or the ground-water divide, whichever is closer.						
(iv) Zone four is the area within a 15-year ground-water time of travel to the wellhead or margin of the collection area, the boundary of the aquifer(s) which supplies water to the ground-water source, or the ground-water divide, whichever is closer.						

Table 91 Surface Water Protection Zones

SerialNum	Protection Zone	Buffer Distance	System Name	Source Name	SYSNUMBER	LONGITUDE	LATITUDE
UTU 093433	2	1000	WEBER BASIN WCD - CENTRAL	WEBER RIVER INTAKES(2)	29023	-111.73016	41.070155
UTU 093433	2	1000	WEBER BASIN WCD - SOUTH	WEBER RIVER INTAKE	6013	-111.73016	41.070155
UTU 092708	2	0.19	Deseret	Green River	24036	-109.38071	40.32599
UTU 092710	2	0.19	Deseret	Green River	24036	-109.38071	40.32599
UTU 092712	2	0.19	Deseret	Green River	24036	-109.38071	40.32599
UTU 091068	3	0.1	Green River	Green River	8005	-110.1476	38.989226
Remainder of parcels are located in zones 3 and 4							
Utah Administrative Code (UAC) Rule R309-605							
Zone 1: (A) Streams, rivers and canals: Zone 1 encompasses the area on both sides of the source, 1/2 mile on each side measured laterally from the high water mark of the source, and from 100 feet downstream of the POD to 15 miles upstream, or to the limits of the watershed or to the state line, whichever comes first.							
(B) Reservoirs or lakes: zone 1 is considered to be the area 1/2 mile from the high water mark of the source. Any stream or river contributing to the lake/reservoir will be included in zone 1 for a distance of 15 miles upstream, and 1/2 mile laterally on both sides of the source.							
Zone 2: Zone 2 is defined as the area from the end of zone 1, and an additional 50 miles upstream (or to the limits of the watershed or to the state line, whichever comes first), and 1000 feet on each side measured from the high water mark of the source.							
Zone 3: Zone 3 is defined as the area from the end of zone 2 to the limits of the watershed or to the state line, whichever comes first, and 500 feet on each side measured from the high water mark of the source.							
Zone 4: Zone 4 is defined as the remainder of the area of the watershed (up to the state line, if applicable) contributing to the source that does not fall within the boundaries of zones 1 through 3.							

The BLM also reviewed the leases for potential water rights for potential water quality degradation or quantity impairment. Per State of Utah Anti-Degradation policy (UAC R317-2-3) water quality must continue to be acceptable to meet the beneficial uses of the water right under all conditions (State of Utah, 2023).

BLM Utah reviews for groundwater quality protection for oil and gas leasing, exploration and development are outlined in Instruction Memorandum (IM) No. UT 2010-055: Protection of Ground Water Associated with Oil and Gas Leasing, Exploration and Development- Utah BLM (BLM, 2010). The purpose of this IM is to clarify the process for the protection or isolation of usable ground water zones (< 10,000 mg/L as defined in 43 CFR 3172) associated with oil and gas exploration and development activities. The downhole intervals of formations containing usable water would be fully cased and cemented to prevent co-mingling of water. Well casings would be pressure tested to ensure long-term integrity throughout the life of the well. The appropriate selection of casing materials and cementing schedule is required and reviewed by the BLM, for the prevention of intermixing or water quality degradation of identified usable water formations. Prior to approving an APD, the BLM would conduct hydrologic and engineering reviews on all proposed down-hole activities, including hydraulic fracturing (if proposed) to ensure that usable water zones will be protected or isolated by the casing and cementing plan. All appropriate regulatory and mitigation measures would be included in any approved APD, and all potential impacts would be identified and addressed during the site-specific NEPA process.

UT-LN-56 Drinking Water Source Protection Zone is applied to all Vernal FO leases due to them being located in Zone 4 above the Town of Green River water intake which is defined as is defined as the remainder of the area of the watershed (up to the state line, if applicable) contributing to the source that does not fall within the boundaries of zones 1 through 3.

Surface Water Quantity

Surface water demands from similar activities within the basin require water for the use of drilling, development and also dust suppression along routes which are typically obtained from municipal sources or through a temporary change application on valid existing water rights. Surface water sources typically include rivers, streams, or canals that are in proximity to potential development areas.

The leases are within the Upper Colorado River Basin, Sevier River and Great Salt Lake watersheds encompassing eight HUC6 level watersheds: Escalante Desert-Sevier Lake (160300), Jordan (160202), Upper Bear (160101), Weber (160201), Lower Green (140600), Lower San Juan (140802), Upper Colorado- Dirty Devil (140700), Upper Colorado- Dolores (140300), Upper Green (140401), White-Yampa (140500).

Since 2000, the Colorado River Basin (Basin) has been experiencing a historic, extended drought, increase in average daily temperatures, all of which has impacted regional water supply and other resources, such as hydropower, recreation, and ecologic services. Development of these leases would add to the total water use and depletion of surface water sources of estimated volumes presented in section 3.2.1.

The Utah Division of Water Rights (UDWRi) is the regulatory agency responsible for the approval of water rights and water right applications to support sustainable yield for each basin for the protection of existing water beneficial uses. Current water policies for these areas vary from total closure to new appropriations (basins along the Wasatch Front and Sevier River drainages SLFO, RFO areas) while other areas have limited new water development and allowed smaller appropriations and fixed time applications (Colorado River Basins, VFO, MbFO, MFO, PFO areas). Most densely populated areas throughout the state are closed to new surface water appropriations and changes to valid existing water rights would be required to provide for water required that is necessary for the development of these leases. For specific water rights policy for each area refer to the following link. [Water Rights Policy Map](https://www.waterrights.utah.gov/wrinfo/policy/wrareas/default.asp) or <https://www.waterrights.utah.gov/wrinfo/policy/wrareas/default.asp>

Water sources used for drilling, production, and reclamation would be from state permitted sources with valid water rights. Water supply necessary for drilling, production and reclamation would likely originate from local sources and cause additional demand and depletion from effected water basins. For leases within the Colorado River Basins, the Colorado River Recovery and San Juan Recovery programs and water depletion fees apply for larger depletions occurring in the river with a post 1988 priority. See the AIB Section 22 for further details. Valid permits and supporting water rights for these activities, if necessary, that involve these beneficial uses are verified and analyzed for potential impacts to public and other adjacent water rights prior to approval and analyzed in detail at the APD stage.

Water Quality (Surface and Ground)

The BLM has reviewed the leases as related to assessed watersheds per the 2024 DEQ water quality list. Estimated ground disturbances from lease development would likely create increased sedimentation from sheet flow and other erosional processes due to increased bare ground

following significant storm events and during snowmelt runoff periods. To minimize erosion and soil loss from sloped areas, site-specific SOPs, BMPs, COAs, and lease stipulations are attached to each lease based on soil and slope characteristics within the lease. These protective measures would minimize impacts from the Proposed Action to surface water resources because surface disturbing activities would occur outside of riparian and wetland areas where surface water and is present. Minor erosional effects would be limited to upland areas where surface disturbance occurs. Other necessary development activity with potential impact on surface water, such as stream crossings and culvert installations would be designed per BLM standards with existing SOPs and BMPs to minimize amounts of erosion, sedimentation, and stormwater runoff to the maximum extent possible. Surface water resources would not be impacted to the degree that requires detailed analysis in the EA. The leases are located in 61 DEQ water quality assessment units.

Table 92 Utah Department of Water Quality Beneficial Use Classification Surface Waters

Beneficial Use Sub Classification (UAC R317-2-6)	Use Definition
1	Drinking Water
2A	Primary Contact Recreation (swimming, rafting, kayaking)
2B	Infrequent Primary Contact Recreation (such as wading, hunting, fishing)
3A	Cold Water Fishery/Cold Water Aquatic Life
3B	Warm Water Fishery/Warm Water Aquatic Life
4	Agriculture/Irrigation

Table 93 EPA Assessment Categories

EPA Assessment Category	Assessment Category Description
1	Supporting all beneficial uses
2	No Evidence of Impairment.
3	Insufficient Data and/or Information
4A	TMDL Approved
4B	Pollution Control
4C	Non-Pollutant Impairment
5	Not Supporting

Table 94- Watersheds in lease areas Assessment Units/Classifications/Description (2024 DEQ 305b list)

AU Name
Ashley Creek Lower
2B, 3B, 4
5: TMDL Required (Impaired 303d list)
Birch Creek-tribs
2B, 3A, 4
3: Insufficient Data. Need more information
Birch Spring Draw

2B, 3C, 4

5: TMDL Required (Impaired 303d list)

Bitter Creek Lower

2B, 3A, 4

5: TMDL Required (Impaired 303d list)

Bitter Creek Upper

2B, 3A, 4

5: TMDL Required (Impaired 303d list)

Brough Reservoir

2B, 3A, 4

5: TMDL Required (Impaired 303d list) and 4A: TMDL Approved (Impaired)

Burnt Fork Creek

2B, 3A, 4

2: Supports all assessed uses

Chicken Creek-2

2B, 3A, 4

5: TMDL Required (Impaired 303d list)

Coal Creek

2B, 3C, 4

5: TMDL Required (Impaired 303d list)

Cottonwood Creek Lower

2B, 3C, 4

5: TMDL Required (Impaired 303d list) and 4A: TMDL Approved (Impaired)

Currant Creek-Juab Valley

2B, 3A, 4

5: TMDL Required (Impaired 303d list)

Desert Seep Wash

2B, 3C, 3D

5: TMDL Required (Impaired 303d list)

Dry Gulch Creek

2B, 3A, 4

5: TMDL Required (Impaired 303d list) and 4A: TMDL Approved (Impaired)

Duchesne River-1

2B, 3B, 4

5: TMDL Required (Impaired 303d list) and 4A: TMDL Approved (Impaired)

Echo Creek

1C, 2B, 3A, 4

5: TMDL Required (Impaired 303d list) and 4A: TMDL Approved (Impaired)

Evacuation Creek

2B, 3B, 4

5: TMDL Required (Impaired 303d list)

Fremont River-1

1C, 2A, 3A, 4

1: Supports all designated uses

Fremont River-2

1C, 2A, 3A, 4

5: TMDL Required (Impaired 303d list) and 4A: TMDL Approved (Impaired)

Grassy Trail Creek Lower

2B, 3C, 4

3: Insufficient Data. Need more information

Green River-2

1C, 2A, 3B, 4

5: TMDL Required (Impaired 303d list)

Green River-2 Tribs-2

1C, 2A, 3B, 4

5: TMDL Required (Impaired 303d list)

Green River-2 Tribs-4

1C, 2A, 3B, 4

5: TMDL Required (Impaired 303d list)

Green River-3

1C, 2A, 3B, 4

5: TMDL Required (Impaired 303d list)

Green River-3 Tribs-1

1C, 2A, 3B, 4

3: Insufficient Data. Need more information

Green River-3 Tribs-2

1C, 2A, 3B, 4

3: Insufficient Data. Need more information

Green River-3 Tribs-3

1C, 2A, 3B, 4

3: Insufficient Data. Need more information

Green River-3 Tribs-4

1C, 2A, 3B, 4

3: Insufficient Data. Need more information

Green River-4

1C, 2A, 3B, 4

1: Supports all designated uses

Hill Creek

2B, 3A, 4

3: Insufficient Data. Need more information

Kane Spring Wash

2B, 3C, 4

5: TMDL Required (Impaired 303d list)

Lake Fork-1

1C, 2B, 3A, 4

5: TMDL Required (Impaired 303d list) and 4A: TMDL Approved (Impaired)

Lost Creek-1

2B, 3B, 4

5: TMDL Required (Impaired 303d list)

Lost Creek2-Salina

2B, 3B, 4

3: Insufficient Data. Need more information

Lost Creek3-Salina

2B, 3A, 4

5: TMDL Required (Impaired 303d list)

Mill Meadow Reservoir

2B, 3A, 4

4A: Approved TMDL. Impaired

Monroe Creek

2B, 3A, 4

1: Supports all designated uses

Montezuma Creek-3

1C, 2A, 3B, 4

5: TMDL Required (Impaired 303d list)

Ninemile

2B, 3A, 4

5: TMDL Required (Impaired 303d list) and 4A: TMDL Approved (Impaired)

Pariette Draw Creek

2B, 3B, 3D, 4

5: TMDL Required (Impaired 303d list) and 4A: TMDL Approved (Impaired)

Peterson Creek

2B, 3B, 4

5: TMDL Required (Impaired 303d list)

Recapture Creek-1

1C, 2A, 3B, 4

5: TMDL Required (Impaired 303d list)

Salina Creek-1

2B, 3B, 4

4A: Approved TMDL. Impaired

Salina Creek-2

2B, 3A, 4

5: TMDL Required (Impaired 303d list)

San Pitch-1

2B, 3C, 3D, 4

4A: Approved TMDL. Impaired

Sevier River-14

2B, 3B, 4

2: Supports all assessed uses

Sevier River-16-1

2B, 3B, 4

3: Insufficient Data. Need more information

Sevier River-16-2

2B, 3B, 4

3: Insufficient Data. Need more information

Sevier River-16-3

2B, 3B, 4

3: Insufficient Data. Need more information

Sevier River-18

2B, 3B, 4

3: Insufficient Data. Need more information

Sevier River-20

2B, 3B, 4

5: TMDL Required (Impaired 303d list)

Sevier River-21

2B, 3B, 4

3: Insufficient Data. Need more information

Sevier River-8

2B, 3B, 4

1: Supports all designated uses

Sheep Creek

2B, 3A, 4

1: Supports all designated uses

Soldier Creek

2B, 3C, 4

2: Supports all assessed uses

Sutton Creek

2B, 3A, 4

3: Insufficient Data. Need more information

Sweetwater Creek

2B, 3A, 4

2: Supports all assessed uses

Uinta River-2

2B, 3B, 4

4A: Approved TMDL. Impaired

Uinta River-3

2B, 3A, 4

3: Insufficient Data. Need more information

White River

2B, 3B, 4

1: Supports all designated uses

Willow Creek

2B, 3A, 4

5: TMDL Required (Impaired 303d list)

Willow Creek Upper

2B, 3A, 4

2: Supports all assessed uses

The site-specific SOPs, BMPs, COAs, and lease stipulations attached to each lease would minimize impacts from the Proposed Action to surface water resources because surface disturbing activities would occur outside of riparian and wetland areas where surface water is present. Surface water resources would not be impacted to the degree that requires detailed analysis in the EA and would continue to support designated uses.

While there are no specific BLM Utah water quality specific notices or stipulations, the buffers on surface occupancy in riparian areas and floodplains and stipulations for sloped areas where higher amounts of run-off are expected, will result in protection of surface water quality by minimizing sediment inputs and other water quality contaminants within the leases. Slight increases in surface runoff volume from disturbed areas such as any required new roads, pads, and other disturbance would likely occur.

The Utah Division of Water Quality requires a construction storm water permit if the development activities (industrial or construction) result in a discharge of a reportable quantity release or that contribute pollutants to a violation of a water quality standard. All activities that may contribute to degradation of water quality is subject to State of Utah water quality anti-degradation laws and reviews. No adverse impacts to drinking water sources would occur provided that proper drilling, casing, and cementing procedures as outlined in state and federal regulations are followed to protect the integrity of bore holes and underlying geologic units.

AIB-26 Wildlife

How would potential development of leases impact wildlife and big game habitat?

Many species of wildlife occur on the various leases and will be considered at the APD phase and certain development plan specifications included at that time. The species present range from small rodents, reptiles including lizards, rabbits and hares, fur bearers and large and small predators such as mountain lions and black bears, foxes and coyotes. There are many other species that may occur on specific leases. Many non-migratory bird species such as horned larks and game birds may be present on some of the leases.

Many species of wildlife are economically important for the recreational opportunities such as wildlife watching and hunting. The Utah Division of Wildlife Resources (UDWR) classifies wildlife habitats based on season of use and assigns importance values of “substantial” and

“crucial” mainly for big game. Big game species are defined by UDWR as mule deer, elk, bison, moose, pronghorn, desert and Rocky Mountain bighorn and mountain goats. There are other large animals, but they are not classified as big game by the UDWR. Many of the leases have important habitat for various species contained on them such as crucial and substantial winter range for big game species.

Energy production is likely to have adverse effects on wildlife species, including the direct loss of 5,927.5 acres of habitat from construction of roads and production facilities including usable habitat near roads, habitat fragmentation, increased noise and disturbance from human activities, and possible collisions causing direct mortality. Winter is a particularly sensitive period for wildlife and especially big game as they are more susceptible to energy loss, so reduced winter habitat may increase mortality. Appendix B, Stipulations and Notices, has lease notices and stipulations by lease number. Lease notices and stipulations protects herds of big game and also many other species and guilds of wildlife. Examples include notices such as no surface disturbing activities in deer and elk crucial winter range may occur from December 1-April 30.

These impacts are analyzed in brief and not detail because, due to the lease notices and stipulations attached to leases, impacts may harm animals and their populations may decline short term at the project level, but they are unlikely to have herd management unit level impacts.

AIB-27 Wild and Scenic Rivers

Several leases in the project area occur within the corridors of several rivers determined through BLM planning to be either suitable or eligible for designation under the Wild and Scenic Rivers Act (WSRA) of 1968. The evaluation of a river(s) for possible inclusion under the WSRA follows a three-step process: (1) determination of eligibility, (2) tentative classification (wild, scenic, or recreational), and (3) determination of suitability. The inventory criteria for eligibility are as follows: the river must be free flowing and, with its adjacent land area, possess one or more outstandingly remarkable values, including scenic, recreational, geological, fish and wildlife, historical, cultural, or other similar values. Other values that may be considered include, but are not limited to, ecological, biological or botanical, paleontological, hydrological, traditional cultural uses, water quality, and scientific values. The tentative classification of a river found to be eligible is based on the condition of the river and the adjacent lands as they exist at the time of the study. The WSRA specifies and defines three classification categories for eligible rivers: wild, scenic, and recreational. Each eligible river segment must be further evaluated to determine whether it is suitable for inclusion under the WSRA. The suitability analysis provides the basis for determining which rivers to recommend to Congress as potential additions to the National Wild and Scenic Rivers System. The numerous factors considered within the suitability determinations can be found in BLM Manual 6400 – Wild and Scenic Rivers – Policy and Program Direction for Identification, Evaluation, Planning, and Management (BLM, 2012). Per the WSRA, corridors for eligible and suitable rivers are defined as .25 miles either side of ordinary high-water mark not to exceed 320 acres per river mile.

Rivers that are determined via BLM planning to be eligible, but not suitable, do not continue to have required management prescriptions or protections for identified wild and scenic river values; however, this determination does not nullify the continued existence of inventoried river

values. For rivers determined by BLM planning decisions to be suitable for inclusion under WSRA, it is BLM's policy to manage their free-flowing condition, water quality, tentative classification, and any outstandingly remarkable values until Congress designates the river or releases it for other uses.

White River

Under the Vernal 2008 RMP, several segments of the White River were determined eligible-wild or eligible-scenic but not suitable.

Leases UTU93656, UTU93657, UTU93658, UTU93659 overlay an eligible-wild segment of the White River; each of these leases was issued with stipulation UT-S-120: NSO – White River Corridor. Leases UTU 93694, UTU93656, UTU93695, UTU93921, and UTU93922 partially overlay a White River eligible-scenic segment; each of these leases were issued with stipulation UT-S-120: NSO – White River Corridor. Leases UTU93684, UTU93685, and UTU93935 also overlay a White River eligible-scenic segment; lease stipulation UT-S-120: NSO – White River Corridor has been applied to these leases.

Due to the attached NSO stipulations, potential impacts to the inventoried wild and scenic river values within the eligible segments of the White River corridor would not occur.

Bitter Creek

Leases UTU93676 and UTU93679 partially overlay the eligible-scenic segment of Bitter Creek. Both leases have the following stipulations attached: UT-S-96: NSO – Fragile Soils/Slopes greater than 40%; UT-S-99: CSU – Fragile Soils/Slopes; UT-S-100: CSU – Fragile Soils/Slopes (21%-40%); UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves. Slopes within the Bitter Creek corridor beyond the floodplain vary from 25-90%.

Due to the attached lease stipulations, no surface disturbance within the stream banks, riparian zone, and floodplain would occur. Potential development or surface disturbance within the remainder of the ½ mile river corridor would necessarily be restricted or prevented by stipulations for fragile soils and slopes. Due to these restrictions and most of each lease existing outside the Bitter Creek corridor, lease development within the corridor is expected to be substantially minimized or avoided. Potential impacts to the inventoried wild and scenic river values within the eligible-scenic Bitter Creek corridor are expected to be minimal.

Evacuation Creek

Leases UTU93687 and UTU93688 partially overlay the eligible-recreational segment of Evacuation Creek. Both leases have the following stipulations attached: UT-S-96: NSO – Fragile Soils/Slopes greater than 40%; UT-S-99: CSU – Fragile Soils/Slopes; UT-S-100: CSU – Fragile Soils/Slopes (21%-40%); UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves. Slopes within the river corridor beyond the floodplain vary from 25-80%.

Due to the attached lease stipulations, no surface disturbance within the stream banks, riparian zone, and floodplain would occur. Potential development or surface disturbance within the remainder of the ½ mile river corridor would necessarily be restricted or prevented by

stipulations for fragile soils and slopes. Due to these restrictions and most of each lease existing outside the Evacuation Creek corridor, lease development within the river corridor is expected to be substantially minimized or avoided. Potential impacts to the inventoried wild and scenic river values within the eligible-scenic Bitter Creek corridor are expected to be minimal.

Middle Green River

Leases UTU91946, UTU92682, UTU92684, UTU92695, and UTU92696 partially overlay the eligible-recreational segment of the Green River south of Jensen, Utah. Lease stipulation UT-S-123: NSO – Riparian, Floodplains, and Public Water Reserves applies to these leases. The Green River corridor in this section is already impacted by private agricultural development along most of its length between Jensen and the Ouray NWR. Furthermore, on the slopes above the river floodplain, numerous roads and well pads currently exist. This section of river is popular with local day users who would be generally accustomed to seeing human developments from the river. Because of the existing road network, access to the river would not be impacted by lease development. Therefore, potential impacts from lease development to recreational experiences and inventoried wild and scenic river values are expected to be minimal.

Lower Green River

Leases UTU91068 and UTU92677 overlay the suitable-scenic segment of the Lower Green River from Ouray to the Carbon County line. Lease stipulations UT-S-117: NSO – River Corridors: Lower Green River and UT-S-119: NSO – Lower Green River Corridor apply to these leases.

Due to the attached NSO stipulations, potential impacts to the inventoried wild and scenic river values within the suitable-scenic segment of the Lower Green River corridor will not occur.

AIB-28 Woodland and Forest Resources

How would potential development of the leases affect woodland and forest vegetation resources?

There are a total of 239,923 acres within the subject leases of that about 39,111 acres (16.3 %) support forest and woodland vegetation types (Table 89 Table 89 AIB-23). Excluding pinyon – juniper woodland communities, other forest types represent 3,367 acres of the leases (less than 0.1% of the lease area; Table 89 AIB-23). Most disturbance occurs in the first 0–5 years; however, pads remain until well retirement (generally 30 to 40 years) and then are reclaimed. Woodland loss is negligible economically (less than one year's worth of fuelwood harvest).

The potential impacts to various vegetation communities are highly dependent on the siting of facilities during the APD stage. Based on the analysis assumptions in Section 3.2, about 982 acres of forest and woodland communities would be disturbed (Table 89 AIB-23) with about 105 acres disturbed in non-pinyon-juniper woodland forest communities (Table 89 Table 89 AIB-23). At the lease scale this represents about 2.5% of forest vegetation communities (between 0.5 and 4.1% by forest type; Table 89). Excluding pinyon – juniper woodland communities, at the lease spatial scale about 3.1% of forest vegetation communities would be disturbed. At the watershed

scale, development of the lease would disturb less than 0.04% of the woodland and forest communities (0.01 to 0.07% by vegetation community).

While not applied here specifically to protect forests and woodlands, stipulations applied for other resource concerns may indirectly reduce impacts to forest communities (e.g. land use plan specific stipulations designed to avoid riparian and wetland habitats, steep slopes, ACECs, Natural Areas, wildlife species).

All future development would require site-specific NEPA review and a reclamation plan at the APD stage. Forest and woodland vegetation are not under active management, and disturbance would affect only a small portion of mapped cover. With limited scale and duration, impacts would be minor and localized. Given the low level of disturbance to woodland forest communities when placed in the watershed and landscape context, the lack of stands managed for timber or forest product production, and the low potential impacts to forest product sales, a detailed analysis of the impacts on woodland and forest resources is not warranted.

APPENDIX F. ESA, TRIBAL, AND NHPA CONSULTATION

F.1 ENDANGERED SPECIES ACT CONSULTATION

The effects of oil and gas leasing development on T&E species were analyzed through Section 7 consultation at the Land Use Plan Stage for each FO. In conjunction with this EA, the BLM is reinitiating consultation on the relevant Land Use Plans to account for Programmatic Level impacts to two species listed since the approval of the Land Use Plans and original issuance of the leases (silverspot butterfly and North American wolverine) and to one species for which the potential range of the species has been expanded (Welsh's milkweed).

During the present consultations, Lease Notices to inform the potential lessees of the potential that T&E species may be affected by oil and gas activities were developed and have been attached to leases as appropriate. The lease action is in compliance with T&E species management outlined in accordance with the requirements under the FLPMA and the NEPA.

While Federal regulations and policies require the BLM to make its public land and resources available on the basis of multiple use principles, it is BLM policy to conserve special status species and their habitats, and to ensure that actions authorized by the BLM do not contribute to the need for the species to become listed as T&E by the USFWS.

For lease sales conducted within the range of listed species covered by the referenced consultation actions, the BLM regularly coordinates with the USFWS to assure agreement that the Proposed Action does not exceed the impacts analyzed in the existing consultations.

To date, coordination with the USFWS is ongoing. Coordination includes providing the USFWS with the list of leases, geospatial data, and list of species potentially impacted by the Lease Sale leases. Coordination will be complete before a lease is affirmed.

When or if APDs are submitted to develop these leases, further evaluation and Section 7 consultation with the USFWS will occur as necessary.

F.2 TRIBAL CONSULTATION

Tribal consultation for leasing actions is done on a government-to-government basis. The BLM provided potentially interested Tribes information about each lease sale and an invitation to consult on resources of concern as provided for by the NEPA, the NHPA, the American Indian Religious Freedom Act (AIRFA), and Executive Order 13007. For all 195 leases, potential development would be subject to additional Tribal consultation under NEPA, NHPA, AIRFA, and Executive Order 13007 as directed by regulation and current policy.

The following summarizes the BLM's efforts to consult with Tribal Nations for each lease sale:

May 2015 Lease sale

Richfield Field Office

The BLM contacted Paiute Indian Tribe of Utah; Ute Indian Tribe of the Uintah & Ouray Reservation, Utah; Hopi Tribe of Arizona; Navajo Nation, Arizona, New Mexico, & Utah; Utah Navajo Commission; Southern Ute Indian Tribe of the Southern Ute Reservation, Colorado; Ute Mountain Ute Tribe; Kaibab Band of Paiute Indians of the Kaibab Indian Reservation, Arizona; Moapa Band of Paiute Indians of the Moapa River Indian Reservation, Nevada; and Zuni Tribe of the Zuni Reservation, New Mexico. In October 2014, the BLM conducted visits with the Navajo Nation, Arizona, New Mexico, & Utah; Paiute Indian Tribe of Utah; and the Hopi Tribe of Arizona. In December 2014, the BLM sent letters to the Tribes to notify them about the proposed lease sale. In January 2015, the Hopi Tribe of Arizona requested additional information from the BLM about the proposed sale. As requested, the BLM provided copies of the cultural resource survey reports and the draft EA for the lease sale to the Hopi Tribe of Arizona in January 2015.

Vernal Field Office

The BLM notified and shared information about the lease sale with the Northwestern Band of the Shoshone Nation; Confederated Tribes of the Goshute Reservation, Nevada and Utah; Ute Mountain Ute Tribe, White Mesa Community; Pueblo of Laguna, New Mexico; Pueblo of Santa Clara, New Mexico; Navajo Nation, Arizona, New Mexico, & Utah; Ute Indian Tribe of the Uintah & Ouray Reservation; Hopi Tribe of Arizona; Southern Ute Indian Tribe of the Southern Ute Reservation, Colorado; Ute Mountain Ute Tribe; Pueblo of Zia, New Mexico; and the Eastern Shoshone Tribe of the Wind River Reservation, Wyoming.

On June 23, 2014, the Hopi Tribe of Arizona responded to the BLM's letter. The Hopi Tribe of Arizona requested 27 proposed parcels to be removed from the sale because they have received less than 10% cultural resource survey coverage. The Hopi Tribe of Arizona additionally requested five proposed parcels located within the Nine Mile Canyon ACEC to be removed from the sale.

On June 30, 2014, the Pueblo of Laguna, New Mexico, responded to the BLM, and requested additional cultural resource survey to occur within many of the proposed parcels. They also expressed concern about the parcels located within the Nine Mile Canyon ACEC and potential effects to archaeological sites from oil and gas development.

On July 14, 2014, the Navajo Nation Historic Preservation Department – Traditional Culture Program (HPD-TCP) responded to the BLM. The HPD-TCP shared that they had reviewed the project information and concluded that the proposed lease sale will not have adverse effects to Navajo Traditional Cultural Properties, as the project is outside of Navajo aboriginal land boundaries. The HPD-TCP additionally requested to be notified if the proposed project inadvertently discovers habitation sites, plant gathering areas, human remains and projects of cultural patrimony.

February 2016 Lease sale

Moab Field Office

On August 11, 2015, the BLM notified and shared information about the lease sale with the Hopi Tribe of Arizona; Pueblo of Jemez, New Mexico; Navajo Nation, Arizona; Paiute Indian Tribe of

Utah; Southern Ute Indian Tribe of the Southern Ute Reservation, Colorado; Ute Indian Tribe of the Uintah & Ouray Reservation; Ute Mountain Ute Tribe; Ute Mountain Ute Tribe, White Mesa Community; Zuni Tribe of the Zuni Reservation, New Mexico; Pueblo of Laguna, New Mexico; and Pueblo of Santa Clara, New Mexico. On August 24, 2015, the BLM received a response from the Hopi Tribe of Arizona asking for a copy of the cultural resource report and the EA. On July 24, 2015, the BLM received a letter from the Navajo Nation, Arizona, New Mexico, & Utah requesting that three proposed parcels be excluded from the lease sale. The BLM upheld that request, and those parcels were deferred from the lease sale. The BLM conducted a consultation meeting with the Ute Indian Tribe of the Uintah & Ouray Reservation and Southern Ute Indian Tribe of the Southern Ute Reservation on October 20, 2015. At this meeting, the tribal representatives asked for the cultural resource report and maps of the proposed lease sale.

Price Field Office

In April 2015, the BLM sent information and notification about the proposed lease sale to the Paiute Indian Tribe of Utah; Hopi Tribe of Arizona; Zuni Tribe of the Zuni Reservation, New Mexico; Navajo Nation, Arizona, New Mexico, & Utah; Ute Mountain Ute Tribe; Southern Ute Indian Tribe of the Southern Ute Reservation, Colorado; Northwestern Band of the Shoshone Nation; Shoshone-Bannock Tribes of the Fort Hall Reservation; and Eastern Shoshone Tribe of the Wind River Reservation, Wyoming.

The Hopi Tribe of Arizona responded and requested a copy of the EA and the Section 106 cultural resources literature review report. The BLM provided this information to the Hopi Tribe of Arizona in September 2105. Following receipt of this information, the Hopi Tribe of Arizona requested that parcels south of Interstate 70 be removed from the lease sale.

Vernal Field Office

On August 6, 2015, the BLM sent letters containing information about and notification of the proposed lease sale to the Ute Mountain Ute Tribe; Ute Indian Tribe of the Uintah & Ouray Reservation; Pueblo of Zia, New Mexico; Ute Mountain Ute Tribe, White Mesa Community; Navajo Nation, Arizona, New Mexico, & Utah; Pueblo of Laguna, New Mexico; Northwestern Band of the Shoshone Nation; Southern Ute Indian Tribe of the Southern Ute Reservation, Colorado; Eastern Shoshone Tribe of the Wind River Reservation, Wyoming; Pueblo of Santa Clara, New Mexico; Hopi Tribe of Arizona; and Pueblo of Jemez, New Mexico. On August 24, 2015, the Hopi Tribe of Arizona responded and expressed concerns about four parcels. Two of these parcels were removed from the lease sale after the NEPA protest period. No other Tribes responded.

December 2016 Lease sale

Vernal Field Office

On May 24, 2016, the BLM sent information and notification letters to the Ute Mountain Ute Tribe; Ute Indian Tribe of the Uintah & Ouray Reservation; Confederated Tribes of the Goshute Reservation, Nevada and Utah; Pueblo of Zia, New Mexico; Ute Mountain Ute Tribe, White Mesa Community; Navajo Nation, Arizona, New Mexico, & Utah; Pueblo of Laguna, New Mexico; Northwestern Band of the Shoshone Nation; Southern Ute Indian Tribe of the Southern

Ute Reservation; Eastern Shoshone Tribe of the Wind River Reservation; Pueblo of Santa Clara, New Mexico; Hopi Tribe of Arizona; and the Pueblo of Jemez, New Mexico.

In a letter dated August 29, 2016, the Hopi Tribe of Arizona requested the removal of five proposed parcels from the lease sale. The Hopi Tribe of Arizona shared that they believed that leasing these parcels would increase cumulative industrial traffic, noise, and pollution on and near the Nine Mile Canyon Scenic Byway.

In a letter dated August 2, 2016, the Ute Indian Tribe of the Uintah & Ouray Reservation stated that they asserted ownership of such lands, and the Tribe had submitted a proposal to restore the Trust status of lands within their historic Uncompahgre Reservation to the Secretary for the Department of the Interior.

June 2017 Lease sale

Richfield Field Office

On November 4, 2016, the BLM sent information and notification letters to the Paiute Indian Tribe of Utah; Ute Indian Tribe of the Uintah & Ouray Reservation; Hopi Tribe of Arizona; Navajo Nation, Arizona, New Mexico, & Utah; Utah Navajo Commission; Southern Ute Indian Tribe of the Southern Ute Reservation; Ute Mountain Ute Tribe; Kaibab Band of Paiute Indians of the Kaibab Indian Reservation, Arizona; Moapa Band of Paiute Indians of the Moapa River Indian Reservation, Nevada; and Zuni Tribe of the Zuni Reservation, New Mexico.

The Hopi Tribe of Arizona responded to BLM's invitations in a letter dated November 14, 2016, and requested copies of the cultural resources report and the draft EA. No other Tribes responded.

Two previously deferred parcels were added to the lease sale in early January 2017. On January 9, 2017, the BLM sent a letter updating the Hopi Tribe of Arizona about the change to the lease sale. Only the Hopi Tribe of Arizona were notified about the change to the sale because they were the only Tribe with an expressed interest in the lease sale. On January 17, 2017, the BLM provided the Hopi Tribe of Arizona a copy of the Section 106 cultural resource report and the draft EA.

On February 6, 2017, the Hopi Tribe of Arizona responded to the BLM. Upon review of the cultural resources report and the draft environmental assessment, the Hopi Tribe of Arizona agreed with BLM's determination of no adverse effect to historic properties for the lease sale.

September 2017 Lease sale

Fillmore Field Office

On February 27, 2017, the BLM sent information and notification letters to the Hopi Tribe of Arizona; Skull Valley Band of Goshute Indians of Utah; Paiute Indian Tribe of Utah - Kanosh Band of Paiutes; the Paiute Indian Tribe of Utah; Ute Indian Tribe of the Uintah & Ouray Reservation; Confederated Tribes of the Goshute Reservation, Nevada and Utah; Navajo Nation, Arizona, New Mexico, & Utah; and Kaibab Band of Paiute Indians of the Kaibab Indian

Reservation, Arizona. On March 20, 2017, the Hopi Tribe of Arizona responded and identified no objections. No other Tribes responded to the BLM's notification about the lease sale.

December 2017 Lease sale

Vernal Field Office

On April 13, 2017, the BLM sent information and notification letters to the Eastern Shoshone Tribe of the Wind River Reservation, Wyoming; Ute Indian Tribe of the Uintah & Ouray Reservation; Ute Mountain Ute Tribe; Ute Mountain Ute Tribe, White Mesa Community; Pueblo of Santa Clara, New Mexico; Pueblo of Zia, New Mexico; Northwestern Band of the Shoshone Nation; Confederated Tribes of the Goshute Reservation, Nevada and Utah; Southern Ute Indian Tribe of the Southern Ute Reservation, Colorado; Pueblo of Laguna, New Mexico; Hopi Tribe of Arizona; Navajo Nation, Arizona, New Mexico, & Utah; and Pueblo of Jemez, New Mexico.

The Hopi Tribe of Arizona responded in a letter dated April 24, 2017, requesting a copy of the cultural resource report for the proposed undertaking to enable them to determine if the proposal would affect cultural resources significant to the Hopi Tribe of Arizona. A copy of the draft cultural report was sent via email to the Hopi Cultural Preservation Office on June 26, 2017. Despite multiple attempts by the BLM to follow-up with the Hopi Tribe about any concerns, no response was received.

In addition to the notification letters sent to Tribal leaders and cultural resource specialists, the BLM emailed an invitation request to consult on the lease sale to Betsy Chapoose, the Cultural Rights and Protection Director of the Ute Tribe of the Uintah and Ouray Indian Reservation on April 12, 2017. Archaeologists from the BLM Vernal FO met with Betsy Chapoose on May 17, 2017. The lease sale was one of the topics discussed and no concerns were raised by Betsy Chapoose at that time. Gary Torres, BLM Green River District Manager, Gerald Kenczka, Acting Vernal FO Field Manager, and David Grant Vernal FO Archaeologist, met with the Ute Tribe Business Committee on May 24, 2017. The lease sale was one of the topics discussed at that meeting and no Section 106 concerns were raised by the committee related to the lease sale. Ester McCullough, Vernal FO Manager, Gerald Kenczka and Amber Koski, Vernal Assistant FO Managers, and David Grant, Vernal FO Archaeologist, met with the Ute Business Committee again on August 31, 2017, and no Section 106 concerns were raised by the committee related to the lease sale. A request was made by the Business Committee to coordinate better with the Ute Energy and Minerals department in regards to oil and gas lease sales and pipeline projects. The Ute Tribe Business Committee wrote a letter stating that BLM had not consulted with them on the proposed undertaking. Follow-up emails to cultural representatives of the Ute Tribe of the Uintah and Ouray Indian Reservation requesting comments regarding the lease sale received no response.

The BLM received a request for an additional map showing all the proposed lease parcels via phone call from Danny Naranjo of the cultural resource staff for the Santa Clara Pueblo on May 1, 2017. BLM emailed a map detailing the lease parcels to Mr. Naranjo on the same day. Follow-up emails from the BLM to cultural representatives of the Santa Clara Pueblo requesting comments regarding the lease sale were not returned.

March 2018 Lease sale

Moab Field Office

On August 10, 2017, the BLM sent information and notification letters to the Ute Mountain Ute Tribe; Ute Mountain Ute Tribe, White Mesa Community; Ute Indian Tribe of the Uintah & Ouray Reservation, Utah; Pueblo of Zia, New Mexico; Zuni Tribe of the Zuni Reservation, New Mexico; Pueblo of Santa Clara, New Mexico; Pueblo of Jemez, New Mexico; Pueblo of Laguna, New Mexico; Pueblo of Acoma, New Mexico; Hopi Tribe of Arizona; Navajo Nation, Arizona, New Mexico, & Utah; Paiute Indian Tribe of Utah; and the Southern Ute Indian Tribe of the Southern Ute Reservation, Colorado. Only the Hopi Tribe of Arizona requested to participate in the Section 106 process.

On September 25, 2017, the BLM provided the draft cultural resources report to consulting parties for the undertaking, including the Hopi Tribe of Arizona. The Hopi Tribe of Arizona responded to the BLM following their review of the report on October 16, 2017. In their response, the Hopi Tribe of Arizona requested that parcels within a high density of cultural resource be withdrawn from the lease sale. On November 21, 2017, the Hopi Tribe of Arizona and the BLM met in a face-to-face meeting to discuss the lease sale and the Tribe's specific concerns about the lease sale.

On November 27, 2017, the BLM received a request from the Navajo Nation, Arizona, New Mexico, & Utah to participate as a Section 106 consulting party for the lease sale undertaking, which the BLM recognized.

On January 17, 2017, the BLM notified the Ute Mountain Ute Tribe; Ute Mountain Ute Tribe, White Mesa Community; Ute Indian Tribe of the Uintah & Ouray Reservation, Utah; Pueblo of Zia, New Mexico; Zuni Tribe of the Zuni Reservation, New Mexico; Pueblo of Santa Clara, New Mexico; Pueblo of Jemez, New Mexico; Pueblo of Laguna, New Mexico; Pueblo of Acoma, New Mexico; Hopi Tribe of Arizona; Navajo Nation, Arizona, New Mexico, & Utah; Navajo Utah Commission; Paiute Indian Tribe of Utah; and Southern Ute Indian Tribe of the Southern Ute Reservation, Colorado that the ACHP involvement in the Section 106 process for the lease sale.

On January 24, 2018, the BLM sent the SHPO, consulting parties, and Tribes participating in the lease sale undertaking the final Section 106 cultural resources report for their review. This began a 30-day timeframe for consulting parties, including Tribal Nations, to formally disagree with the BLM's finding of "no adverse effect" to historic properties. No Tribes provided disagreement. However, disagreements from other consulting parties were received, which then necessitated an ACHP review of the Section 106 undertaking.

June 2018 Lease sale

Richfield Field Office

In December 2017, the BLM sent information and notification letters to the Kaibab Band of Paiute Indians of the Kaibab Indian Reservation, Arizona; Moapa Band of Paiute Indians of the Moapa River Indian Reservation, Nevada; Navajo Nation, Arizona, New Mexico, & Utah; Paiute

Indian Tribe of Utah; Zuni Tribe of the Zuni Reservation, New Mexico; San Juan Southern Paiute Tribe of Arizona; Southern Ute Indian Tribe of the Southern Ute Reservation, Colorado; Hopi Tribe of Arizona, Ute Indian Tribe of the Uintah & Ouray Reservation, Utah; and Ute Mountain Ute Tribe. No concerns from any Tribe were received.

Vernal Field Office

See the Tribal consultation above for December 2017. Some parcels analyzed for the December 2017 lease sale were re-offered as part of the June 2018 oil and gas lease sale.

September 2018 Lease sale

Fillmore and Salt Lake Field Offices

The West Desert District, which includes both the Fillmore and Salt Lake FO, conducted Tribal consultation together for the September 2018 lease sale. In December 2017, the BLM sent information and notification letters to the Hopi Tribe of Arizona; Skull Valley Band of Goshute Indians of Utah; Paiute Indian Tribe of Utah - Kanosh Band of Paiutes; Paiute Indian Tribe of Utah; Ute Indian Tribe of the Uintah & Ouray Reservation, Utah; Confederated Tribes of the Goshute Reservation, Nevada and Utah; Navajo Nation, Arizona, New Mexico, & Utah; and Kaibab Band of Paiute Indians of the Kaibab Indian Reservation, Arizona. No Tribes requested to consult on the lease sale.

Price Field Office

On March 28, 2018, the BLM sent information and notification letters to the Paiute Indian Tribe of Utah; Hopi Tribe of Arizona; Southern Ute Indian Tribe of the Southern Ute Reservation, Colorado; Kaibab Band of Paiute Indians of the Kaibab Indian Reservation, Arizona; Jicarilla Apache Nation, New Mexico; San Juan Southern Paiute Tribe of Arizona; Pueblo of Laguna, New Mexico; Pueblo of Zia, New Mexico; Ute Indian Tribe of the Uintah & Ouray Reservation, Utah; Navajo Nation, Arizona, New Mexico, & Utah; Northwestern Band of the Shoshone Nation; Shoshone-Bannock Tribes of the Fort Hall Reservation; Ute Mountain Ute Tribe; Pueblo of Jemez, New Mexico; and Pueblo of Santa Clara, New Mexico.

On April 9, 2018, the BLM received a response from the Hopi Tribe of Arizona requesting additional information and continued Tribal consultation for the Section 106 undertaking.

On May 2, 2018, the BLM received a response from the Southern Ute Indian Tribe of the Southern Ute Reservation, Colorado requesting additional information on the proposed lease sale. The Tribe also identified five parcels of concern.

The Hopi Tribe of Arizona along with other consulting parties disagreed with the BLM's Section 106 finding of "no adverse effect" to historic properties. Therefore, the BLM sought an ACHP review of the BLM's finding of effect.

December 2018 Lease sale

Moab and Monticello Field Offices

The Canyon Country District, which includes both the Moab and Monticello FOs, conducted Tribal consultation together for the December 2018 lease sale. On June 28, 2018, the BLM sent information and notification letters to Pueblo of Jemez, New Mexico; Navajo Nation, Arizona, New Mexico, & Utah; Pueblo of Acoma, New Mexico; Pueblo of Isleta, New Mexico; Pueblo of Laguna, New Mexico; Ohkay Owingeh, New Mexico; Pueblo of Cochiti, New Mexico; Pueblo of Nambe, New Mexico; Pueblo of Picuris, New Mexico; Pueblo of Pojoaque, New Mexico; Pueblo of San Felipe, New Mexico; Pueblo of Santa Ana, New Mexico; Santo Domingo Pueblo (previously listed as Pueblo of Kewa); Pueblo of Tesuque, New Mexico; Pueblo of Sandia, New Mexico; Pueblo of San Ildefonso, New Mexico; Pueblo of Taos, New Mexico; Ysleta Del Sur Pueblo; Pueblo of Santa Clara, New Mexico; Pueblo of Zia, New Mexico; Zuni Tribe of the Zuni Reservation, New Mexico; Hopi Tribe of Arizona, Ute Indian Tribe of the Uintah & Ouray Reservation, Utah; Ute Mountain Ute Tribe; Ute Mountain Ute Tribe, White Mesa Community; Navajo Utah Commission; Paiute Indian Tribe of Utah; Southern Ute Indian Tribe of the Southern Ute Reservation, Colorado; Navajo Nation Oljato Chapter; Navajo Nation Red Mesa Chapter; Kaibab Band of Paiute Indians of the Kaibab Indian Reservation, Arizona; and San Juan Southern Paiute Tribe of Arizona. The Canyon Country District also reached out to the All Pueblo Council of Governors for involvement and comment.

Canyon Country District received responses from the Pueblo of San Felipe, New Mexico on July 3, 2018; the Pueblo of Acoma, New Mexico on September 7, 2018; the Ysleta del Sur Pueblo on July 11, 2018; the Southern Ute Indian Tribe of the Southern Ute Reservation, Colorado on July 18, 2018, and August 8, 2018; the Hopi Tribe of Arizona on July 23, 2018, and July 27, 2018; and the All Pueblo Council of Governors on July 30, 2018.

On September 5, 2018, the Canyon Country District sent the draft report to all of the above Tribes, with the exception of the Pueblo of Ysleta del Sur who elected to not be involved in this undertaking.

On September 20, 2018, the Pueblo of San Felipe, New Mexico participated in the above-mentioned consulting parties meeting phone call hosted by the BLM Utah State Office.

Canyon County hosted a meeting with the Pueblo of Acoma, New Mexico at the Monticello FO on October 9, 2018. During the meeting, BLM managers and staff toured parcels and discussed the December 2018 lease sale.

The Moab and Monticello FO staff and the District Manager attended the fall 2018 biennial Ute Tribal Consultation Meeting on October 11, 2018, and discussed the December 2018 lease sale.

The Hopi Tribe of Arizona along with other consulting parties disagreed with the BLM's Section 106 finding of "no adverse effect" to historic properties. Therefore, the BLM sought an ACHP review of BLM's finding of effect.

Vernal Field Office

On June 25, 2018, the BLM sent information and notification letters to Eastern Shoshone Tribe of the Wind River Reservation, Wyoming; Confederated Tribes of the Goshute Reservation, Nevada and Utah; Hopi Tribe of Arizona, Pueblo of Laguna, New Mexico; Northwestern Band of the Shoshone Nation; Pueblo of Jemez, New Mexico; Pueblo of Santa Clara, New Mexico;

Southern Ute Indian Tribe of the Southern Ute Reservation, Colorado; Ute Indian Tribe of the Uintah & Ouray Reservation, Utah; Ute Mountain Ute Tribe; Ute Mountain Ute Tribe, White Mesa Community; and Pueblo of Zia, New Mexico.

The Vernal FO received no responses to the tribal consultation requests.

March 2019 Lease sale

Salt Lake Field Office

On November 7, 2019, the BLM sent information and notification letters to the Pueblo of Jemez, New Mexico; Hopi Tribe of Arizona; Skull Valley Band of Goshute Indians of Utah; Confederated Tribes of the Goshute Reservation, Nevada and Utah; and Northwestern Band of the Shoshone Nation.

On November 14, 2018, the Hopi Tribe of Arizona responded to the BLM and requested the cultural resources report to review. The Hopi Tribe of Arizona requested to consult on any proposal in Utah with potential to adversely affect prehistoric cultural resources.

Vernal Field Office

On November 29, 2018, the BLM sent information and notification letters to Eastern Shoshone Tribe of the Wind River Reservation, Wyoming, Confederated Tribes of the Goshute Reservation, Nevada and Utah; Hopi Tribe of Arizona; Northwestern Band of the Shoshone Nation; Pueblo of Jemez, New Mexico; Pueblo of Laguna, New Mexico; Pueblo of Santa Clara, New Mexico; Southern Ute Indian Tribe of the Southern Ute Reservation, Colorado; Ute Indian Tribe of the Uintah & Ouray Reservation, Utah; Ute Mountain Ute Tribe, White Mesa Community; and the Pueblo of Zia, New Mexico. Another letter was sent to the Ute Tribe Director of Cultural Rights and Protection.

On December 10, 2018, The Vernal FO received a response from the Hopi Tribe of Arizona, requesting cultural resource reports for the December 2018 and March 2019 Oil and Gas Lease Sales. They also requested that the March Lease Sale be cancelled until mitigation for "another breach of confidentiality" is resolved. The BLM responded to the Hopi Tribe of Arizona's letter on February 14, 2019.

The Hopi Tribe of Arizona along with other consulting parties disagreed with the BLM's Section 106 finding of "no adverse effect" to historic properties for the entirety of the March 2019 lease sale. Therefore, the BLM sought an ACHP review of the BLM's finding of effect.

F.3 NATIONAL HISTORIC PRESERVATION ACT CONSULTATION

The BLM prepared comprehensive literature reviews and analysis of cultural resources for all 11 competitive oil and gas lease sales associated with the 195 leases. The comprehensive literature reviews and analysis of cultural resources was conducted as part of the BLM's reasonable and good faith effort to identify historic properties and any potential adverse effects these

undertakings may have on historic properties, as required by the NHPA, 54 USC 306108 (commonly referred to as Section 106).

The ACHP document titled *Meeting the “Reasonable and Good Faith” Identification Standards in Section 106 Review* outlines the steps to determine when a reasonable and good faith identification effort has been met (ACHP, 2018). The ACHP states that prior to beginning the identification stage in the Section 106 process, the regulations require the federal agency to do the following:

- “Determine and document the APE [Area of Potential Effect] in order to define where the agency will look for historic properties that may be directly or indirectly affected by the undertaking;
- Review existing information on known and potential historic properties within the APE, so the agency will have current data on what can be expected, or may be encountered, within the APE;
- Seek information from others who may have knowledge of historic properties in the area. This includes the State Historic Preservation Officer/Tribal Historic Preservation Officer and as appropriate, Indian tribes or Native Hawaiian organizations who may have concerns about historic properties of religious and cultural significance to them within the APE” (ACHP n.d.).

Following these initial steps, the regulations set out factors the agency must consider in determining what is a “reasonable and good faith effort” to identify historic properties:

Take into account past planning, research, and studies; the magnitude and nature of the undertaking and the degree of federal involvement; the nature and extent of potential effects on historic properties; and the likely nature and location of historic properties within the APE. The Secretary of the Interior’s standards and guidelines for identification provide guidance on this subject. The agency official should also consider other applicable professional, state, tribal, and local laws, standards, and guidelines. The regulations note that a reasonable and good faith effort may consist of or include ‘background research, consultation, oral history interviews, sample field investigation, and field survey.’

For lease sales, the BLM’s identification process includes completing a comprehensive literature review, which consists of a review and analysis of available cultural resource records and information for each parcel included in the undertaking APE as well as the surrounding area and proactively seeking information from others who may have knowledge of historic properties in the area.

The NHPA Section 106 process additionally requires notification and consultation, if requested, with Native American Tribes. See Appendix F.2 for information about the BLM’s Tribal consultation efforts for the 195 leases.

For the May 2015, February 2016, June 2017, September 2017, December 2017 and June 2018 competitive oil and gas lease sales, following a 30-day review period, the BLM received no disagreements from the Utah State Historic Preservation Office (SHPO) and no objections from consulting parties or Tribes on the BLM's finding of "no adverse effect" (36 C.F.R. § 800.5(b)) to historic properties. Pursuant to 36 C.F.R. § 800.5(c)(1), the BLM then proceeded to conclude the Section 106 process.

For the December 2016, March 2018, September 2018, December 2018, and March 2019 competitive oil and gas lease sales, the BLM received no disagreements from the Utah SHPO but it did receive objections from consulting parties and Tribes on the BLM's finding "no adverse effect" (36 C.F.R. § 800.5(b)) to historic properties. For each of these lease sale undertakings, per 36 C.F.R. § 800.5(c)(2)(1), the BLM requested the ACHP to review the finding of effect. See Table 95 for summaries of the ACHP opinion for each lease sale. Following the receipt of an ACHP review opinion, the BLM then made a final determination on the finding of effect to historic properties taking into account the ACHP's opinion pursuant to 36 C.F.R. § 800.5(c)(3)(ii)(A) for the given lease sale. Per 36 C.F.R. § 800.5(c)(3)(ii)(B), the BLM then notified the ACHP, SHPO, and all consulting parties and Tribes of its final decision and thereby concluded the Section 106 process for each of the lease sales.

The current additional analysis of other resources provided in the EA for the 195 leases does not alter the BLM's original Section 106 undertakings for the 11 previous lease sales. Therefore, the current EA analysis does not constitute a new Section 106 undertaking requiring analysis.

The BLM has revisited and confirmed the underlying NHPA Section 106 analysis for all 11 lease sales was sufficient. Therefore, the BLM's findings of No Adverse Effect (36 C.F.R. § 800.5(b)) to historic properties for all 11 lease sales remain valid.

Table 95 Summary of the BLM's Section 106 Process Key

Dates

Lease Sale Date	Leases	SHPO Concurrence Date	ACHP Appeal Date	ACHP Opinion Date	Section 106 Conclusion Date	ACHP Opinion Summary
May 2015 ¹⁴	UTU91055, UTU91058, UTU91060, UTU91068	12/31/2014 and 6/2/2014	NA	NA	12/31/2014 and 6/2/2014	
February 2016 ¹⁵	UTU91310, UTU91311, UTU91304, UTU91305, UTU91306, UTU91308, UTU91334, UTU91340, UTU91342, UTU91343	11/12/2015, 11/16/2015, and 1/20/2016	NA	NA	11/12/2015, 11/16/2015, and 1/20/2016	
December 2016	UTU91932, UTU91933, UTU91936, UTU91937, UTU91938, UTU91945, UTU91946, UTU91948, UTU91949, UTU91950, UTU91952, UTU91953	9/21/2016	11/10/2016	12/12/2016	2/6/2017	The ACHP's advisory opinion stated that they do not agree with the BLM's finding of "no adverse effect" to historic properties for the lease sale, primarily due to the location of some lease parcels near Nine Mile Canyon. In a letter dated February 6, 2017, the BLM responded to the ACHP's opinion in fulfillment of its Section 106 responsibilities for the undertaking, per 36 C.F.R. § 800.5(c)(3)(ii)(B). In this response, the BLM stated that it removed two parcels located in Nine Mile Canyon and reaffirmed its finding of "no adverse effect" to historic properties for the remaining parcels in the sale. The BLM's response to the ACHP concluded the Section 106 process for the undertaking.

¹⁴ The BLM consulted with the Utah SHPO separately for the parcels located within the Richfield FO and Vernal FO. For the leases located within Richfield FO, the BLM received concurrence from the SHPO on December 31, 2014. For the leases located within Vernal FO, the BLM received concurrence from the SHPO on June 2, 2014.

¹⁵ The BLM consulted with the Utah SHPO separately for the parcels located within the Price FO, Vernal FO, and Moab FO. For the leases located within Price FO, the BLM received concurrence from the SHPO on November 16, 2015. For the leases located within Vernal FO, the BLM received concurrence from the SHPO on November 12, 2015. For the leases located within Moab FO, the BLM received concurrence from the SHPO on January 20, 2016.

June 2017	UTU92311, UTU92312, UTU92313, UTU92314, UTU92315, UTU92316, UTU92328, UTU92330	3/21/2017	NA	NA	3/21/2017	
September 2017	UTU92487, UTU92765, UTU92766, UTU92807	6/13/2017	NA	NA	6/13/2017	
December 2017	UTU92670, UTU92674, UTU92676, UTU92677, UTU92679, UTU92680, UTU92682, UTU92683, UTU92684, UTU92685, UTU92686, UTU92695, UTU92696, UTU92697, UTU92698, UTU92700, UTU92701, UTU92702, UTU92703, UTU92704, UTU92708, UTU92709, UTU92710, UTU92711, UTU92712, UTU92713, UTU92714	11/2/2017	NA	NA	11/2/2017	
March 2018	UTU93001, UTU93002, UTU93003, UTU93004, UTU93005, UTU93008, UTU93010, UTU93012, UTU93013, UTU93014	1/31/2018	2/18/2018	3/7/2018	3/8/2018	The ACHP's advisory opinion stated that, based on their review, the BLM had correctly applied the Criteria of Adverse Effect pursuant to 36 C.F.R. § 800.5(a)(1) to reach a finding of "no adverse effect" to historic properties for the March 2018 oil and gas lease sale undertaking. In its response to the ACHP, the BLM reaffirmed its finding of "no adverse effect" to historic properties. The BLM's response to the ACHP concluded the Section 106 process for the undertaking.
June 2018 ¹⁶	UTU93250, UTU93251, UTU93252, UTU93260, UTU93261	11/2/2017 and 3/27/2018	NA	NA	11/2/2017 and 3/27/2018	
September 2018 ¹⁷	UTU93602, UTU93603, UTU93604, UTU93605, UTU93611, UTU93612, UTU93433	5/9/2018 and 7/23/2018	8/7/2018 (Price FO leases only)	9/10/2018	5/9/2018 and 9/18/2018	The BLM received no disagreements about the finding of effect to historic properties for those leases located within Fillmore FO. An ACHP opinion was sought for those leases located

¹⁶ The BLM consulted with the Utah SHPO separately for the parcels located within the Richfield FO and Vernal FO. For the leases located within Richfield FO, the BLM received concurrence from the SHPO on March 27, 2018. For the leases located within Vernal FO, the BLM received concurrence from the SHPO on November 2, 2017.

¹⁷ The BLM consulted with the Utah SHPO separately for the parcels located within the Fillmore FO and Price FO. For the leases located within Fillmore FO, the BLM received concurrence from the SHPO on May 9, 2018. For the leases located within Price FO, the BLM received concurrence from the SHPO on July 23, 2018.

						within the Price FO. The ACHP's advisory opinion stated that, based on their review, the BLM had correctly applied the Criteria of Adverse Effect pursuant to 36 C.F.R. § 800.5(a)(1) to reach a finding of "no adverse effect" to historic properties for the September 2018 oil and gas lease sale undertaking within Carbon and Wayne Counties, Utah. In a letter dated September 18, 2018, the BLM responded to the ACHP's opinion in fulfillment of its Section 106 responsibilities for the undertaking, per 36 C.F.R. § 800.5(c)(3)(ii)(B). In this response, the BLM reaffirmed its finding of "no adverse effect" to historic properties for the undertaking and thereby concluded the Section 106 process for the undertaking.
December 2018	UTU93702, UTU93705, UTU93707, UTU93708, UTU93710, UTU93711, UTU93712, UTU93714, UTU93715, UTU93723, UTU93724, UTU93732, UTU93734, UTU93735, UTU93261, UTU93646, UTU93650, UTU93651, UTU93655, UTU93656, UTU93657, UTU93658, UTU93659, UTU93660, UTU93661, UTU93662, UTU93663, UTU93664, UTU93665, UTU93666, UTU93668, UTU93669, UTU93670, UTU93671, UTU93672, UTU93673, UTU93675, UTU93676, UTU93679, UTU93681, UTU93684, UTU93685, UTU93686, UTU93687, UTU93688, UTU93692, UTU93694, UTU93695, UTU93696, UTU93697, UTU93718, UTU93725	10/25/2018	11/9/2018	No response	12/25/2018	Due to disagreement from multiple consulting parties and Tribes regarding BLM's determination that the statewide lease sale undertaking would result in a "no adverse effect" to historic properties, BLM requested the ACHP to review BLM's finding of "no adverse effect;" however, the ACHP did not provide an opinion. As a result, pursuant to 36 C.F.R. § 800.5(c)(3)(i), the BLM NHPA Section 106 responsibilities regarding the December 2018 Lease Sale were fulfilled, and the BLM reaffirmed the finding of "No Adverse Effect," pursuant to 36 C.F.R. § 800.5(c)(3)(ii)(B). The BLM issued leases sold as part of the December 2018 lease sale on February 8, 2019. This information was shared with consulting parties and Tribes.

March 2019	UTU93981, UTU93979, UTU93881, UTU93882, UTU93884, UTU93888, UTU93889, UTU93900, UTU93901, UTU93902, UTU93903, UTU93904, UTU93905, UTU93906, UTU93907, UTU93910, UTU93911, UTU93913, UTU93914, UTU93915, UTU93916, UTU93917, UTU93918, UTU93919, UTU93920, UTU93921, UTU93922, UTU93923, UTU93924, UTU93925, UTU93926, UTU93927, UTU93928, UTU93929, UTU93930, UTU93931, UTU93933, UTU93934, UTU93935, UTU93936, UTU93937, UTU93938, UTU93939, UTU93946, UTU93947, UTU93948, UTU93959, UTU93962, UTU93963, UTU93965, UTU93966, UTU93968, UTU93980, UTU93982, UTU94003, UTU94135	3/25/2019	3/27/2019	4/26/2019	7/24/2019	The ACHP's advisory opinion stated that they agreed with BLM's finding of "no adverse effect" to historic properties for those parcels located in Salt Lake FO and Vernal FO; however, the ACHP did not agree with the BLM's finding of "no adverse effect" to historic properties for the lease parcels located in San Juan County (Monticello FO). In a letter dated July 24, 2019, the BLM responded to the ACHP's opinion in fulfillment of its Section 106 responsibilities for the undertaking, per 36 C.F.R. § 800.5(c)(3)(ii)(B). In this response, the BLM reaffirmed its original finding of "no adverse effect" to historic properties for the entirety of the lease sale. The letter provided the ACHP with a summary of the BLM's decision-making rationale and included how it considered the ACHP's opinion in making its final decision on the finding of effect to historic properties for the lease sale. The BLM's response to the ACHP concluded the Section 106 process for the undertaking.

APPENDIX G. COMMENTS AND BLM RESPONSES

The BLM evaluated all comments received and parsed them into substantive or non-substantive comments according to the guidance in the BLM's NEPA Handbook (H-1790-1; page 66). Example substantive comments contained in Table 97 are representative of topics raised, and single responses are provided for similarly stated topics. Due to their length, the BLM has summarized or excerpted comments below.

The BLM will only respond to substantive comments. The comments, in their entirety, are on ePlanning.

Table 96 Public submissions with assigned commentor codes and resource/topic areas, the BLM assigned unique codes for all individuals, entities, and organizations who submitted comments during the Comment Period. The BLM evaluated all comments received and parsed them into substantive or non-substantive comments according to BLM's NEPA Handbook (H-1790-1; page 66). The agency then identified resource/topic areas for each of the substantive comments. The commenter codes and resource/topic areas are used in Table 96 for responding to all substantive comments. Substantive comments contained in Table 97 are representative of topics raised, and single responses are provided for similarly stated comments.

Substantive comments 1) question, with reasonable basis, the accuracy of the information in the analysis; 2) question, with reasonable basis, the adequacy of, methodology for, or assumptions used for the analysis; 3) present new information relevant to the analysis; 4) present reasonable alternatives other than those analyzed; or 5) cause changes or revisions in one or more of the alternatives.

Non-substantive comments generally 1) expressed opposition to or support for the proposed action or alternatives or agreed or disagreed with BLM policy or resource decisions without reasoning, justification, or supporting data; 2) did not pertain to the project area or the project; or 3) took the form of vague or open-ended questions and did not warrant a specific response. Similarly, comments that merely cited other comments or sources without providing reasoning or additional explanation were considered non-substantive.

The BLM received the following non-substantive comments during the comment period on the EA:

- TBD

While the BLM does not provide specific responses to each of these comments because they do not meet the criteria for being substantive, the agency thanks these commenters for their feedback. The BLM received **XX** comments, **XX** of which contained substantive comments.

Table 96 Public submissions with assigned commentor codes and resource/topic areas

Organization	Commenter Code	Resource/Topic Area

Table 97 Comment summary and BLM response

Comment number	Resource/Topic	Summarized Comment*	Addressed in the EA, Section:	Comment Response

APPENDIX H. SUMMARY OF THE TYPICAL PHASES OF OIL AND GAS DEVELOPMENT

H.1 INTRODUCTION

There are three phases of oil and gas lease development, including Well Development, Production and Operation, and Well Reclamation. Well Development includes the construction of the well pad, access road and associated pipelines, along with the actual drilling of the well. Production and Operation. The production phase begins when the well starts producing in saleable quantities. This phase also includes all the maintenance and monitoring actions conducted during the productive lifetime of the well. The well abandonment and reclamation phase occurs after the productive life of the well has concluded. Well abandonment and reclamation involve plugging wells and reclaiming the surface according to BLM guidelines and requirements.

H.2 WELL DEVELOPMENT

During construction activity, the area is cleared of vegetation and the pad is constructed. Clearing of the proposed well pad and access road are typically limited to the smallest area possible to provide safe and efficient work areas for all phases of construction. All clearing activities are accomplished by cutting, mowing, and/or grading vegetation, as necessary. Cut vegetation may be mulched and spread on site or hauled to a commercial waste disposal facility. Guidelines and best practices can be found in the BLM publication “Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development” (BLM, 2007), commonly referred to as “the Gold Book.”

Next, heavy equipment, including but not limited to, bulldozers, graders, front-end loaders, and/or track hoes are used to construct the pad, along with other features, as needed for development. Other features may include, but are not limited to, an access road, reserve pit, pipeline, and/or fracturing pond. Cut and fills may be required to level the pad or road surfaces. Reserve pits¹⁸, if authorized, are lined using an impermeable liner or other lining mechanism (i.e., bentonite or clay) to prevent fluids from leaching into the soil. Access roads may have cattle guards, gates, drainage control, or pull-outs installed, among a host of other features that may be necessary based on the site-specific situation. Long-term surface disturbances such as pads and roads are typically surfaced with a layer of crushed rock. Areas not needed for long-term development are reclaimed by recontouring the surface and re-establishing vegetation.

Throughout the drilling operation phase, equipment is moved on site and used to install the drill rig and other associated infrastructure. At this stage, the well is drilled and completed. Well completion includes setting the casing to depth, cementing the casing,¹⁹ and perforating the

¹⁸ A conventional reserve pit is a lined earthen pit excavated adjacent to a well pad and is commonly used for the disposal of drilling muds and fluids in gas or oil fields (USFWS 2009).

¹⁹ According to BLM regulations from 43 CFR 3160: 43 CFR 3170: Subpart 3172, casing and cementing programs are conducted to protect and/or isolate all usable water zones, lost circulation zones, abnormally pressured zones, and any prospectively valuable deposits of minerals. The casing setting depth is calculated to position the casing seat opposite a competent formation which will contain the maximum pressure to which it will be exposed during normal drilling operations.

casing in target zones. If a well is going to be drilled directionally,²⁰ horizontally,²¹ or vertically²² this phase may be followed by hydraulic fracturing which involves pumping fracturing fluid into a formation at a calculated, predetermined rate and pressure to generate fractures or cracks in the target formation.

A pipeline, if needed, is laid within a right-of-way that is first cleared of vegetation. A backhoe, or similar piece of equipment, digs a trench to a depth at least 36 inches below ground surface. After the trench is dug, the pipeline is assembled by welding pieces of pipe together to fit the contour of the pipeline's path. Once inspected, the pipe can be lowered into the trench and covered with stockpiled subsoil originally removed from the trench. Each pipeline undergoes hydrostatic testing prior to natural gas being pumped through the pipeline. This ensures the pipeline is strong enough and absent any leaks. Table 98 includes some of the common wastes (hazardous and nonhazardous) that are produced during construction.

In many cases, small diameter (less than 6 inches) surface gathering lines are used for local collection and transportation of products. In these cases, the pipeline can be laid directly on the surface to avoid disturbing vegetation and the associated risk of weed infiltration. These pipelines are commonly made of steel, high-density polyethylene (HDPE), or Thermoplastic Polyurethane (TPU) / Nitrile Rubber (NBR) lay-flat hose.

Drilling, Production, Operations

When construction of the well-pad is complete, the drilling rig and associated equipment are moved on site and erected. Usually, a conventional rotary drill rig is used. The drill rig must be capable of withstanding all the anticipated conditions that may be encountered while drilling. Wells may be drilled directionally, horizontally, or vertically based on the target formation. The depth of the well is entirely dependent on the target formation depth and may be several hundred feet deep to over 20,000 feet deep.

When a conventional reserve pit system is used, drilling fluid or mud is circulated through the drill pipe to the bottom of the hole, through the bit, up the bore of the well, and finally to the surface. When drilling mud emerges from the hole, it enters the reserve pit where it remains until all fluids are evaporated and the solids can be buried. Drilling and completing a well can often require 1,000-4,000 bbls of water. The source and method of transport of the water is analyzed when the APD is evaluated.

Determination of casing setting depth is based on all relevant factors, including presence/absence of hydrocarbons; fracture gradients; usable water zones; formation pressures; lost circulation zones; other minerals; or other unusual characteristics. Any isolating medium other than cement shall receive approval prior to use. The deepest casing may not be cemented and may remain open hole depending on the type of formation it is located in.

²⁰ Directional drilling is the process of controlling the direction and deviation of drilling a well from the surface to a subsurface location without disturbing the land directly above the target oil or gas reservoir (U.S. Department of Energy 2015).

²¹ Horizontal drilling is the process of drilling a well from the surface to a subsurface location just above the target oil or gas reservoir called the "kickoff point," then deviating the well bore from the vertical plane around a curve to intersect the reservoir at the "entry point" with a near-horizontal inclination and remaining within the reservoir until the desired bottom hole location is reached (North Dakota Department of Mineral Resources 2008).

²² Vertical drilling is the process of drilling a well from the surface vertically to a subsurface location where the target oil or gas reservoir is located (U.S. Department of Energy 2015).

A closed-loop system operates in a similar fashion except that when the drilling mud emerges from the hole, it passes through equipment used to screen and remove drill cuttings (rock chips) and sand-sized solids rather than going into a pit. When the solids have been removed, the drilling mud is placed into holding tanks, and from the tank, used again.

In either situation the drilling mud is maintained at a specific weight and viscosity to cool the bit, seal off any porous zones (thereby protecting aquifers and preventing damage to producing zone productivity), control subsurface pressure, lubricate the drill string, clean the bottom of the hole, and bring the drill cuttings to the surface. Water-based or oil-based muds can be used. This choice is dependent on the site-specific conditions.

Once a well has been drilled, completion operations begin. Well completion involves setting casing to depth and perforating the casing in target zones.

Wells are often treated during completion to improve the recovery of hydrocarbons by increasing the rate and volume of hydrocarbons moving from the natural oil and gas reservoir into the wellbore. These processes are known as well-stimulation treatments, which create new fluid passageways in the producing formation or remove blockages within existing passageways. They include fracturing, acidizing, and other mechanical and chemical treatments often used in combination. The results from different treatments are additive and complement each other.

Hydraulic Fracturing

Hydraulic fracturing is a technique used to enhance oil and gas production by increasing permeability in geological formations. This allows oil and gas to flow more easily into the wellbore. The process can help overcome natural challenges, such as low permeability or blockage due to damage near the wellbore that affects fluid flow (Groundwater Protection Council, 2017). While hydraulic fracturing has been utilized for oil and gas recovery since the early 1900s, advancements in technology have made it more common today, especially alongside horizontal drilling.

The Hydraulic Fracturing Process

The hydraulic fracturing process involves high-pressure pumps that inject a fracturing fluid into the formation at a specific rate and pressure. This generates fractures or cracks in the target area. For shale developments, fracturing fluids are primarily water-based and mixed with additives that facilitate the transport of proppants into the fractures. Proppants, which can include materials like sand or walnut hulls, help keep the fractures open once the pumping stops. After initiating the fracture, additional fluids are pumped to extend the fracture and carry proppants deeper into the formation, maintaining the necessary downhole pressure as the fracture expands.

Composition of Fracturing Fluids

The fracturing fluid typically consists of over 99% water and sand, with less than 1% being various chemical additives that adjust the properties of the mixture. Since large volumes of water are needed for hydraulic fracturing, the specific amount can vary based on the area being treated. In some cases, water is recycled, or produced water is used instead.

Currently, water-based fracturing fluids with friction-reducing additives, often referred to as "slick water," are predominantly used in shale gas plays (Groundwater Protection Council, 2017). The number of chemical additives used can vary based on the specific conditions of the well, with typical treatments utilizing low concentrations of three to twelve different chemicals. Each additive serves a specific purpose, such as preventing bacterial growth or protecting the well casing from corrosion. Since these fluids are tailored to meet the unique needs of different formations, there is no universal formula for the types and volumes of additives. Additionally, service companies have developed various compounds with similar functions adaptable to different well environments, with even small changes in concentration potentially affecting performance (Groundwater Protection Council, 2017).

Pre-Fracturing Preparations

Before any hydraulic fracturing treatment, operators and service companies conduct a series of tests to ensure that the well's casing, cement, and fracturing equipment are in proper working order and can safely withstand the pressures and flow rates involved in the treatment.

Fracturing Stages in Horizontal Wells

Hydraulic fracturing in horizontal shale gas wells is usually done in stages. The lateral lengths of these horizontal wells can range from 1,000 to over 5,000 feet. Depending on the length, treatment may involve isolating smaller sections of the lateral for fracturing, with each isolated section referred to as a "stage." Stages are treated sequentially, starting from the farthest end of the wellbore and moving toward the surface until the entire lateral has been stimulated. During drilling, the Bureau of Land Management (BLM) is present to oversee critical processes such as casing and cementing the surface casing, which helps protect groundwater. Before hydraulic fracturing occurs, all surface casings and some deeper zones must be cemented from the bottom of the cased hole to the surface. The cemented well is then pressure-tested for leaks, and sometimes a cement bond log is performed to ensure proper adhesion to the casing and formation. If the fracturing operation is classified as "non-routine" for that area, the BLM will always be present during the process, especially if any abnormal conditions arise during drilling or well completion.

Naturally Occurring Radioactive Material (NORM)

Some soils and geological formations contain low levels of naturally occurring radioactive material (NORM). This material emits low levels of radiation, which is something everyone is exposed to daily. In the context of oil and natural gas production, NORM typically consists of small amounts of uranium and thorium found within the rock. As these elements decay, they produce Radium-226 and Radium-228, which can be brought to the surface in drill cuttings and produced water. Additionally, Radon-222, a gas produced from radium decay, can also accompany shale gas. When NORM is extracted, it may remain in the rock pieces of drill cuttings or in solution with produced water and may occasionally form scales or sludges. The radiation emitted is weak and cannot penetrate dense materials like steel pipes and tanks. According to the EPA, Utah has very low levels of NORM associated with oil and gas production waste (EPA, 2023).

H.3 PRODUCTION OPERATIONS

Production equipment used during the life of the well may include a three-phase separator-dehydrator, flowlines, a meter run, tanks for condensate, produced oil and water, and heater treater. A pumpjack may be required if the back pressure of the well is too high. Production facilities are arranged to facilitate safety and maximize reclamation opportunities. All permanent aboveground structures not subject to safety considerations are painted a standard BLM environmental color or as landowner specified.

Workovers may be performed multiple times over the life of the well. Because oil and gas production usually decline over the years, operators perform workover operations, which involve cleaning, repairing, and maintaining the well for the purposes of increasing or restoring production.

H.4 RECLAMATION AND ABANDONMENT

Well abandonment (whether dry hole or depleted producer) and reclamation of location, access road, and other facilities requires BLM approval. After approval, wellbores are plugged with cement as necessary to prevent fluid or pressure mitigation and to protect and isolate mineral and water resources. Wellheads are removed, and both the surface casing and the production casing are cut off below ground in compliance with federal and state regulations. (BLM, 2007) The well pad, reserve pit and access are reclaimed according to BLM guidelines. This may include backfilling the pit, recontouring the surface to blend with natural surroundings and redistributing topsoil. All surfaces are then reseeded per BLM and state requirements specified in the Application for Permit to Drill (APD) approval.

H.5 COMMON WASTES

Table 98 includes some of the common wastes (hazardous and nonhazardous) that are produced during oil and gas development.

Table 98 Common Wastes Produced during Oil and Gas Development

Phase	Waste	
Well Development Construction, Well Drilling and Completion (including hydraulic fracturing)	Domestic wastes (e.g., food scraps, paper, etc.)	
	Excess construction materials	Woody debris
	Used lubricating oils	Paints
	Solvents	Sewage
	Drilling muds, including additives (i.e., chromate and barite) and cuttings; Well drilling, completion, workover, and stimulation fluids (i.e., oil derivatives such as polycyclic aromatic hydrocarbons (PAHs), spilled chemicals, suspended and dissolved solids, phenols, cadmium, chromium, copper, lead, mercury, nickel)	
	Equipment, power unit and transport maintenance wastes (i.e., batteries; used filters, lubricants, oil, tires, hoses, hydraulic fluids; paints; solvents)	

Phase	Waste	
	Fuel and chemical storage drums and containers	
	Cementing wastes	Drilling rig wash
	Production testing wastes	Excess drilling chemicals
	Excess construction materials	Processed water
	Scrap metal	Contaminated soil including hazardous and non-hazardous materials (potential)
	Sewage	Domestic wastes
Production & Operations	Power unit and transport maintenance wastes (i.e., batteries; used filters, lubricants, filters, tires, hoses, coolants, antifreeze; paints; solvents, used parts)	
	Discharged produced water	
	Production chemicals	
	Workover wastes (e.g., brines)	
Well Reclamation Including abandonment, recontouring, and re-seeding	Construction materials	
	Decommissioned equipment	
	Contaminated soil (potential)	
	Equipment or wastes that could contain hazardous and nonhazardous materials	

H.6 LITERATURE CITED IN APPENDIX H

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APPENDIX I. GENERAL CONFORMITY APPLICABILITY

The Clean Air Act's (CAA) General Conformity Rule mandates that the BLM evaluate reasonably foreseeable emissions that result from its actions in a nonattainment area to determine if they conform with the applicable regulatory agency implementation plans (40 CFR 93.153). The rule takes into account air pollution emissions associated with actions that are federally funded, licensed, permitted, or approved, and ensures emissions do not contribute to air quality degradation, thus preventing the achievement of state and federal air quality goals. In short, general conformity refers to the process of evaluating plans, programs, and projects to determine and demonstrate they meet the requirements of the CAA and an applicable implementation plan.

The General Conformity Rule divides the air conformity process into two distinct areas, applicability and determination. Federal agencies must initially assess if an action is subject to the Conformity Rule (Applicability Analysis) and then if the action conforms to an applicable implementation plan (Conformity Determination). Guidance from Information Bulletin 2014-084 (BLM, 2014) was used to perform an applicability analysis in order to determine if a conformity determination is needed for this Lease Sale.

The general conformity rules are not applicable to this Lease Sale because: 1) leasing does not directly authorize pollutant emitting activities, and no direct emissions would result, 2) indirect emissions are not reasonably foreseeable as defined in 40 CFR 93.152 as it is unknown what design features or mitigation measures an operator will use, and 3) it is unknown what emissions sources would be included in an air quality permit and not subject to a general conformity review. The BLM has evaluated the proposed Lease Sale in accordance with the provisions of 40 CFR Part 93, Subpart B. Based on a review of 40 CFR 93.153(c), BLM has determined that the requirement to perform a full conformity determination is not required for the Proposed Action for the following reasons:

- Under 40 CFR 93.153(c)(2), a conformity determination is not required for actions “which would result in no emissions increase or an increase in emissions that is clearly de minimis,” such as the “granting of leases.” Leasing does not authorize emissions generating activities and therefore does not directly result in an emissions increase. Additionally, 40 CFR 93.153(c)(3) lists Initial Outer Continental Shelf leasing as not having reasonably foreseeable emissions and onshore leasing is similar where lease sales “are made on a broad scale and are followed by exploration and development plans on a project level.” At the leasing stage the BLM does not have a development plan for leases and has determined that indirect emissions are not reasonably foreseeable until the project level.
- A conformity determination also is not required “where the emissions (direct or indirect) are not reasonably foreseeable.” 40 CFR 93.153(c)(3). As defined in the CAA, “Reasonably foreseeable emissions are projected future direct and indirect emissions that are identified at the time the conformity determination is made; the location of such emissions is known and the emissions are quantifiable as described and documented by the Federal agency based on its own information and after reviewing any information presented to the Federal agency.” 40 CFR 93.152 While this EA provides information for the factors that should be considered to determine a reasonable *estimate* of foreseeable emissions for the proposed leases and overall for the region for purposes of NEPA

indirect and cumulative impacts analysis, it does not have specific information about whether or how the specific lease under consideration will be developed during the initial 10 year lease period, such that a more precise emissions inventory could be reasonably estimated and compared to the thresholds provided in 40 CFR 93.153(b).

- Furthermore, 40 CFR 93.153(d) provides, “[notwithstanding the other requirements of this subpart, a conformity determination is not required for:
 - The portion of an action that includes major or minor new or modified stationary sources that require a permit under the new source review program (Section 110(a)(2)(c) and Section 173 of the [CAA]) or the prevention of significant deterioration program (title I, part C of the [CAA]).” 40 CFR 93.153(d)(1). It is uncertain at this time, but highly likely, that several project design features, for example equipment sets, such as storage vessels, truck loading, wellsite stationary engines, VOC control devices, dehydration units, and other equipment will require at least a minor new source review (permit) prior to constructing such facilities to implement any subsequent development proposals. Emissions from such permitted facilities would not be subject to the general conformity analysis provisions. Potential sources that would be permitted, and not subject to general conformity provisions, are currently identified in Utah Administrative Code R307-504-511 or the Federal Implementation Plan for the Indian Country Minor New Source Review Program for the Oil and Natural Gas Industry (80 FR 51991). The EPA recently announced their intent to make changes to regulations covering the oil and gas industry (OOOO b/c), and the BLM is unsure what emissions sources will be covered under these regulations when leases are developed in the future.
- General conformity provisions “are not applicable until 1 year after the effective date of the final nonattainment designation” 40 CFR 93.153(k). The final designation for the Uinta Basin ozone nonattainment area occurred in August 2018, and general conformity provisions became applicable to actions occurring after August 2019. Many of the leases were issued prior to the applicability date and as such a general conformity determination is not needed for those leases. BLM’s decision here is not to issue new leases but rather whether to affirm its previous decisions to issue the leases.

For all of these reasons, a conformity determination is not required for the leases under consideration.

APPENDIX J. EMISSIONS TABLES

This appendix provides the per well emissions factors (GHG's and non-GHG's) by phase (well development and production operations) and the total emissions calculated for each alternative on an annual basis. An emissions factor is a value that relates the quantity of a pollutant released into the atmosphere with an activity that generates the pollutant. They are typically expressed in units of weight or mass (e.g. pounds, kilograms, tons) per activity (e.g. duration of equipment operation, construction of an oil or gas well). Emissions factors are the basis for developing emissions inventories that are used for air quality management decisions. The BLM uses emissions inventories to evaluate the change to county-level emissions, comparison between NEPA alternatives, and as inputs for air quality models if modeling is warranted. Over time, emissions factors may change due to new emissions regulations, development of control technologies, or data and information improvements for emissions.

Air pollutant emissions from oil and gas activities occur during construction and operations of a well. Construction related emissions occur from the use of heavy machinery during pad construction, drilling, testing and completion, venting and flaring, interim reclamation, and vehicles. Construction emissions are typically a onetime occurrence. Operation related emissions occur from well workovers, pump engines, heaters, tanks, truck loading, fugitive leaks, pneumatics, dehydrators, compressor engines, reclamation, and vehicle traffic. Emissions from operation activities occur throughout the life of a well. Several factors may influence actual emissions including location, geological formation, well depth, equipment used, supporting infrastructure, and other factors.

The BLM utilized a representative sample of recent applications for permit to drill NEPA analysis documents, see Table 99, in the Uintah Basin to get an estimate of what emissions are occurring from typical well construction and production operations in Utah for various well types, see Table 100. Four different well types were included in the emissions calculation: horizontal oil wells, horizontal gas wells, vertical/directional oil wells, and vertical/directional gas wells. Projects from different operators were also selected to avoid any one operator bias in the results. A weighed average was calculated based on the percentage of well types developed during the analysis year (horizontal oil well = 64.32%, horizontal gas well = 7.54%, vertical/direction oil wells = 7.54%, and vertical/directional gas wells = 20.60%). The weighted average was then applied to this leasing document. While this information provides an estimate of emissions based on typical development occurring in Utah, actual emissions from the development of any given well may differ.

For CAPs and HAPs, the single well emissions factors in Table 100 are used in emissions calculations for each alternative are contained in Table 101 through Table 106. For GHGs, the BLM uses the single well construction emissions factors from Table 100 and estimates the production, mid-stream, and end-use emissions by multiplying the estimated ultimate recovery (EUR) of produced oil and gas with emissions factors from NETL life cycle analysis of U.S. oil and natural gas.

Table 99 Representative Sample of Project NEPA Numbers for the APD's Used to Calculate a Typical Single Well Emissions Estimate

Well Type	Project NEPA Number
Horizontal Oil Well	DOI-BLM-UT-G010-2022-0096-EA, DOI-BLM-UT-G010-2023-0008-EA, DOI-BLM-UT-G010-2023-0030-EA, DOI-BLM-UT-G010-2023-0019-EA, DOI-BLM-UT-G010-2022-0056-EA, DOI-BLM-UT-G010-2025-0048-EA, DOI-BLM-UT-G010-2025-0083-EA
Horizontal Gas Well	DOI-BLM-UT-G010-2023-0064-EA, DOI-BLM-UT-G010-2024-0114-EA, DOI-BLM-UT-G010-2024-0120-EA, DOI-BLM-UT-G010-2024-0098-EA, DOI-BLM-UT-G010-2024-0038-EA, DOI-BLM-UT-G010-2024-0064-EA, DOI-BLM-UT-G010-2025-0002-EA
Vertical/Directional Oil	DOI-BLM-UT-G010-2022-0071-EA, DOI-BLM-UT-G010-2023-0020-EA, DOI-BLM-UT-G010-2023-0035-EA, DOI-BLM-UT-G010-2023-0046-EA, DOI-BLM-UT-G010-2022-0055-EA
Vertical/Directional Gas	DOI-BLM-UT-G010-2022-0093-EA, DOI-BLM-UT-G010-2022-0094-EA, DOI-BLM-UT-G010-2022-0086-EA, DOI-BLM-UT-G010-2022-0059-EA,

Table 100. Single Well Emissions Factors in Tons Per Year (tpy), and Metric Tonnes (t)

Well Type	CO (tpy)	NO _x (tpy)	PM ₁₀ (tpy)	PM _{2.5} (tpy)	SO _x (tpy)	VOC (tpy)	HAP (tpy)	CO ₂ (t)	CH ₄ (t)	N ₂ O (t)
Weighted Average - Well Construction	5.31	11.08	1.97	0.59	0.07	1.13	0.12	1493.07	0.28	0.01
Weighted Average – Well Production Operations	3.45	2.11	0.71	0.23	0.01	7.87	0.64	1177.01	3.78	0.002

Table 101 Average Year Emissions Compared to County Level Emissions for Alternative B

Development of Leases in the Fillmore Field Office							
	PM ₁₀	PM _{2.5}	VOC	NO _x	CO	SO ₂	HAPs
Emissions	0.8	0.2	7.9	2.5	3.6	0.0	0.644
% of Juab County	0.0%	0.1%	1.3%	0.2%	0.1%	0.1%	0.5%
Development of Leases in the Moab Field Office							
	PM ₁₀	PM _{2.5}	VOC	NO _x	CO	SO ₂	HAPs
Emissions	2.1	0.7	20.9	6.6	9.6	0.0	1.705
% of Grand County	0.1%	0.3%	0.2%	0.3%	0.1%	0.6%	0.9%
Development of Leases in the Moab MLP and Monticello Field Office							
	PM ₁₀	PM _{2.5}	VOC	NO _x	CO	SO ₂	HAPs
Emissions	2.1	0.7	20.9	6.6	9.6	0.0	1.705
% of San Juan County	0.0%	0.1%	1.7%	0.8%	0.2%	0.1%	1.0%
Development of Leases in the Price Field Office							
	PM ₁₀	PM _{2.5}	VOC	NO _x	CO	SO ₂	HAPs
Emissions	6.1	2.0	62.4	19.6	28.6	0.1	5.084
% of Carbon County	0.2%	0.4%	2.4%	1.4%	0.7%	0.0%	2.2%
Development of Leases in the Richfield Field Office							
	PM ₁₀	PM _{2.5}	VOC	NO _x	CO	SO ₂	HAPs
Emissions	3.1	1.0	32.1	10.1	14.7	0.1	2.611
% of Sevier County	0.1%	0.1%	1.3%	1.1%	0.1%	0.1%	0.5%
Development of Leases in the Salt Lake Field Office							
	PM ₁₀	PM _{2.5}	VOC	NO _x	CO	SO ₂	HAPs
Emissions	0.8	0.2	7.9	2.5	3.6	0.0	0.644
% of Summit County	0.0%	0.0%	0.6%	0.1%	0.1%	0.0%	0.2%
Development of Leases in the Vernal Field Office							
	PM ₁₀	PM _{2.5}	VOC	NO _x	CO	SO ₂	HAPs
Emissions	820.4	264.1	8,363.9	2,622.4	3,836.3	13.0	681.2
% of Duchesene & Uintah Counties	7.4%	11.7%	13.4%	18.6%	19.6%	3.7%	18.1%

Table 102 Average Year Emissions Compared to County Level Emissions for Alternative C

Development of Leases in the Fillmore Field Office							
	PM ₁₀	PM _{2.5}	VOC	NO _x	CO	SO ₂	HAPs
Emissions	0.8	0.2	7.9	2.5	3.6	0.0	0.644
% of Juab County	0.0%	0.1%	1.3%	0.2%	0.1%	0.1%	0.5%
Development of Leases in the Moab Field Office							
	PM ₁₀	PM _{2.5}	VOC	NO _x	CO	SO ₂	HAPs
Emissions	2.1	0.7	20.9	6.6	9.6	0.0	1.705
% of Grand County	0.1%	0.3%	0.2%	0.3%	0.1%	0.6%	0.9%
Development of Leases in the Moab MLP and Monticello Field Office							
	PM ₁₀	PM _{2.5}	VOC	NO _x	CO	SO ₂	HAPs

Emissions	2.1	0.7	20.9	6.6	9.6	0.0	1.705
% of San Juan County	0.0%	0.1%	1.7%	0.8%	0.2%	0.1%	1.0%
Development of Leases in the Price Field Office							
	PM₁₀	PM_{2.5}	VOC	NO_x	CO	SO₂	HAPs
Emissions	6.1	2.0	62.4	19.6	28.6	0.1	5.084
% of Carbon County	0.2%	0.4%	2.4%	1.4%	0.7%	0.0%	2.2%
Development of Leases in the Richfield Field Office							
	PM₁₀	PM_{2.5}	VOC	NO_x	CO	SO₂	HAPs
Emissions	3.1	1.0	32.1	10.1	14.7	0.1	2.611
% of Sevier County	0.1%	0.1%	1.3%	1.1%	0.1%	0.1%	0.5%
Development of Leases in the Salt Lake Field Office							
	PM₁₀	PM_{2.5}	VOC	NO_x	CO	SO₂	HAPs
Emissions	0.0	0.0	0.0	0.0	0.0	0.0	0.000
% of Summit County	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Development of Leases in the Vernal Field Office							
	PM₁₀	PM_{2.5}	VOC	NO_x	CO	SO₂	HAPs
Emissions	217.2	69.9	2,214.2	694.2	1,015.6	3.5	180.3
% of Duchesene & Uintah Counties	1.9%	3.1%	3.5%	4.9%	5.2%	1.0%	4.8%

Table 103. Annual CAP and HAP emissions for the Proposed Action Alternative (Alternative B) in Tons Per Year.

Calendar Year	Year	# Wells		Well Development Emissions							Well Operation Emissions							Sum of Well Development and Operation Emissions						
		Developed	Operating	PM ₁₀	PM _{2.5}	VOC	NO _x	CO	SO ₂	HAPs	PM ₁₀	PM _{2.5}	VOC	NO _x	CO	SO ₂	HAPs	PM ₁₀	PM _{2.5}	VOC	NO _x	CO	SO ₂	HAPs
2026	1	112	112	220.6	66.1	126.7	1241.0	594.7	7.84	13.44	79.5	25.8	881.4	236.3	386.4	1.12	71.68	300.2	91.8	1,008.1	1,477.3	981.1	8.96	85.12
2027	2	138	250	271.9	81.4	156.1	1529.0	732.8	9.66	16.56	177.5	57.5	1967.5	527.5	862.5	2.50	160.00	449.4	138.9	2,123.6	2,056.5	1,595.3	12.16	176.56
2028	3	91	341	179.3	53.7	102.9	1008.3	483.2	6.37	10.92	242.1	78.4	2683.7	719.5	1176.5	3.41	218.24	421.4	132.1	2,786.6	1,727.8	1,659.7	9.78	229.16
2029	4	106	447	208.8	62.5	119.9	1174.5	562.9	7.42	12.72	317.4	102.8	3517.9	943.2	1542.2	4.47	286.08	526.2	165.4	3,637.8	2,117.7	2,105.0	11.89	298.80
2030	5	130	577	256.1	76.7	147.0	1440.4	690.3	9.10	15.60	409.7	132.7	4541.0	1217.5	1990.7	5.77	369.28	665.8	209.4	4,688.0	2,657.9	2,681.0	14.87	384.88
2031	6	199	776	392.0	117.4	225.1	2204.9	1056.7	13.93	23.88	551.0	178.5	6107.1	1637.4	2677.2	7.76	496.64	943.0	295.9	6,332.2	3,842.3	3,733.9	21.69	520.52
2032	7	145	921	285.7	85.6	164.0	1606.6	770.0	10.15	17.40	653.9	211.8	7248.3	1943.3	3177.5	9.21	589.44	939.6	297.4	7,412.3	3,549.9	3,947.4	19.36	606.84
2033	8	138	1059	271.9	81.4	156.1	1529.0	732.8	9.66	16.56	751.9	243.6	8334.3	2234.5	3653.6	10.59	677.76	1,023.8	325.0	8,490.4	3,763.5	4,386.3	20.25	694.32
2034	9	155	1214	305.4	91.5	175.3	1717.4	823.1	10.85	18.60	861.9	279.2	9554.2	2561.5	4188.3	12.14	776.96	1,167.3	370.7	9,729.5	4,278.9	5,011.4	22.99	795.56
2035	10	184	1398	362.5	108.6	208.1	2038.7	977.0	12.88	22.08	992.6	321.5	11002.3	2949.8	4823.1	13.98	894.72	1,355.1	430.1	11,210.4	4,988.5	5,800.1	26.86	916.80
2036	11	0	1398	0.0	0.0	0.0	0.0	0.0	0.00	0.00	992.6	321.5	11002.3	2949.8	4823.1	13.98	894.72	992.6	321.5	11,002.3	2,949.8	4,823.1	13.98	894.72
2037	12	0	1398	0.0	0.0	0.0	0.0	0.0	0.00	0.00	992.6	321.5	11002.3	2949.8	4823.1	13.98	894.72	992.6	321.5	11,002.3	2,949.8	4,823.1	13.98	894.72
2038	13	0	1398	0.0	0.0	0.0	0.0	0.0	0.00	0.00	992.6	321.5	11002.3	2949.8	4823.1	13.98	894.72	992.6	321.5	11,002.3	2,949.8	4,823.1	13.98	894.72
2039	14	0	1398	0.0	0.0	0.0	0.0	0.0	0.00	0.00	992.6	321.5	11002.3	2949.8	4823.1	13.98	894.72	992.6	321.5	11,002.3	2,949.8	4,823.1	13.98	894.72
2040	15	0	1398	0.0	0.0	0.0	0.0	0.0	0.00	0.00	992.6	321.5	11002.3	2949.8	4823.1	13.98	894.72	992.6	321.5	11,002.3	2,949.8	4,823.1	13.98	894.72
2041	16	0	1398	0.0	0.0	0.0	0.0	0.0	0.00	0.00	992.6	321.5	11002.3	2949.8	4823.1	13.98	894.72	992.6	321.5	11,002.3	2,949.8	4,823.1	13.98	894.72
2042	17	0	1398	0.0	0.0	0.0	0.0	0.0	0.00	0.00	992.6	321.5	11002.3	2949.8	4823.1	13.98	894.72	992.6	321.5	11,002.3	2,949.8	4,823.1	13.98	894.72
2043	18	0	1398	0.0	0.0	0.0	0.0	0.0	0.00	0.00	992.6	321.5	11002.3	2949.8	4823.1	13.98	894.72	992.6	321.5	11,002.3	2,949.8	4,823.1	13.98	894.72
2044	19	0	1398	0.0	0.0	0.0	0.0	0.0	0.00	0.00	992.6	321.5	11002.3	2949.8	4823.1	13.98	894.72	992.6	321.5	11,002.3	2,949.8	4,823.1	13.98	894.72
2045	20	0	1398	0.0	0.0	0.0	0.0	0.0	0.00	0.00	992.6	321.5	11002.3	2949.8	4823.1	13.98	894.72	992.6	321.5	11,002.3	2,949.8	4,823.1	13.98	894.72
2046	21	0	1398	0.0	0.0	0.0	0.0	0.0	0.00	0.00	992.6	321.5	11002.3	2949.8	4823.1	13.98	894.72	992.6	321.5	11,002.3	2,949.8	4,823.1	13.98	894.72
2047	22	0	1398	0.0	0.0	0.0	0.0	0.0	0.00	0.00	992.6	321.5	11002.3	2949.8	4823.1	13.98	894.72	992.6	321.5	11,002.3	2,949.8	4,823.1	13.98	894.72
2048	23	0	1398	0.0	0.0	0.0	0.0	0.0	0.00	0.00	992.6	321.5	11002.3	2949.8	4823.1	13.98	894.72	992.6	321.5	11,002.3	2,949.8	4,823.1	13.98	894.72
2049	24	0	1398	0.0	0.0	0.0	0.0	0.0	0.00	0.00	992.6	321.5	11002.3	2949.8	4823.1	13.98	894.72	992.6	321.5	11,002.3	2,949.8	4,823.1	13.98	894.72
2050	25	0	1398	0.0	0.0	0.0	0.0	0.0	0.00	0.00	992.6	321.5	11002.3	2949.8	4823.1	13.98	894.72	992.6	321.5	11,002.3	2,949.8	4,823.1	13.98	894.72
2051	26	0	1398	0.0	0.0	0.0	0.0	0.0	0.00	0.00	992.6	321.5	11002.3	2949.8	4823.1	13.98	894.72	992.6	321.5	11,002.3	2,949.8	4,823.1	13.98	894.72
2052	27	0	1398	0.0	0.0	0.0	0.0	0.0	0.00	0.00	992.6	321.5	11002.3	2949.8	4823.1	13.98	894.72	992.6	321.5	11,002.3	2,949.8	4,823.1	13.98	894.72
2053	28	0	1398	0.0	0.0	0.0	0.0	0.0	0.00	0.00	992.6	321.5	11002.3	2949.8	4823.1	13.98	894.72	992.6	321.5	11,002.3	2,949.8	4,823.1	13.98	894.72
2054	29	0	1398	0.0	0.0	0.0	0.0	0.0	0.00	0.00	992.6	321.5	11002.3	2949.8	4823.1	13.98	894.72	992.6	321.5	11,002.3	2,949.8	4,823.1	13.98	894.72
2055	30	0	1398	0.0	0.0	0.0	0.0	0.0	0.00	0.00	992.6	321.5	11002.3	2949.8	4823.1	13.98	894.72	992.6	321.5	11,002.3	2,949.8	4,823.1	13.98	894.72
2056	31	0	1286	0.0	0.0	0.0	0.0	0.0	0.00	0.00	913.1	295.8	10120.8	2713.5	4436.7	12.86	823.04	913.1	295.8	10,120.8	2,713.5	4,436.7	12.86	823.04
2057	32	0	1148	0.0	0.0	0.0	0.0	0.0	0.00	0.00	815.1	264.0	9034.8	2422.3	3960.6	11.48	734.72	815.1	264.0	9,034.8	2,422.3	3,960.6	11.48	734.72
2058	33	0	1057	0.0	0.0	0.0	0.0	0.0	0.00	0.00	750.5	243.1	8318.6	2230.3	3646.7	10.57	676.48	750.5	243.1	8,318.6	2,230.3	3,646.7	10.57	676.48
2059	34	0	951	0.0	0.0	0.0	0.0	0.0	0.00	0.00	675.2	218.7	7484.4	2006.6	3281.0	9.51	608.64	675.2	218.7	7,484.4	2,006.6	3,281.0	9.51	608.64
2060	35	0	821	0.0	0.0	0.0	0.0	0.0	0.00	0.00	582.9	188.8	6461.3	1732.3	2832.5	8.21	525.44	582.9	188.8	6,461.3	1,732.3	2,832.5	8.21	525.44
2061	36	0	622	0.0	0.0	0.0	0.0	0.0	0.00	0.00	441.6	143.1	4895.1	1312.4	2145.9	6.22	398.08	441.6	143.1	4,895.1	1,312.4	2,145.9	6.22	398.08
2062	37	0	477	0.0	0.0	0.0	0.0	0.0	0.00	0.00	338.7	109.7	3754.0	1006.5	1645.7	4.77	305.28	338.7	109.7	3,754.0	1,006.5	1,645.7	4.77	305.28
2063	38	0	339	0.0	0.0	0.0	0.0	0.0	0.00	0.00	240.7	78.0	2667.9	715.3	1169.6	3.39	216.96	240.7	78.0	2,667.9	715.3	1,169.6	3.39	216.96
2064	39	0	184	0.0	0.0	0.0	0.0	0.0	0.00	0.00	130.6	42.3	1448.1	388.2	634.8	1.84	117.76	130.6	42.3	1,448.1	388.2	634.8	1.84	117.76
Total (MT)				2,754.1	824.8	1,581.1	15,489.8	7,423.4	97.86	167.76	29,777.4	9,646.2	330,067.8	88,493.4	144,693.0	419.40	26,841.60	32,531	10,471	331,649	103,983	152,116	517	27,009
Max Year				392.0	117.4	225.1	2,204.9	1,056.7	13.93	23.88	992.6	321.5	11,002.3	2,949.8	4,823.1	13.98	894.72	1,355.1	430.1	11,210.4	4,988.5	5,800.1	26.9	916.8
Average Year				275.4	82.5	158.1	1,549.0	742.3	9.8	16.8	763.5	247.3	8,463.3	2,269.1	3,710.1	10.8	688.2	834.1	268.5	8,503.8	2,666.2	3,900.4	13.3	692.5
Minimum Year				179.3	53.7	102.9	1008.3	483.2	6.4	10.9	79.5	25.8	881.4	236.3	386.4	1.1	71.7	130.6	42.3	1,008.1	388.2	634.8	1.8	85.1
				Max Development Year (Short-Term)														1,355.1	430.1	11,210.4	4,988.5	5,800.1	26.9	916.8
				Max Production Year (Long-Term)														992.6	321.5	11,002.3	2,949.8	4,823.1	14.0	894.7

Table 104. Annual GHG Emissions for the Proposed Action Alternative (Alternative B) in Metric Tonnes

Years	# Wells		Well Development Emissions				Well Operation Emissions				Mid-Stream Emissions				End-Use Emissions			
	Developed	Operating	CO2	CH4	N2O	CO2e (100-yr)	CO2	CH4	N2O	CO2e (100-yr)	CO2	CH4	N2O	CO2e (100-yr)	CO2	CH4	N2O	CO2e (100-yr)
1	112	112	167,223.8	31.36	1.120	168,464.1	163,841.7	4,186.4	1.4	288,973.6	460,145.1	5,583.44	6,589	628,330.4	2,806,865.2	70.69	10.416	2,811,815.4
2	138	250	206,043.7	38.64	1.380	207,571.9	277,797.9	7,126.7	2.2	490,785.7	784,752.5	9,629.60	11.215	1,074,776.5	4,762,706.1	118.69	17.310	4,770,968.9
3	91	341	135,869.4	25.48	0.910	136,877.1	275,308.8	7,097.8	2.1	487,398.1	783,319.4	9,742.91	11.169	1,076,707.1	4,724,439.1	116.19	16.726	4,732,467.8
4	106	447	158,265.4	29.68	1.060	159,439.3	312,219.6	8,060.8	2.3	553,073.3	890,165.6	11,114.25	12.684	1,224,832.9	5,359,285.0	131.30	18.828	5,368,337.9
5	130	577	194,099.1	36.40	1.300	195,538.7	373,219.5	9,640.0	2.8	661,255.1	1,064,775.3	13,310.42	15.169	1,465,567.0	6,406,901.1	156.78	22.454	6,417,702.9
6	199	776	297,120.9	55.72	1.990	299,324.7	511,391.6	13,195.4	3.9	905,673.6	1,456,815.4	18,161.25	20.764	2,003,689.0	8,777,144.5	215.37	30.932	8,792,006.9
7	145	921	216,495.2	40.60	1.450	218,100.9	507,343.0	13,132.7	3.7	899,708.9	1,451,964.2	18,255.69	20.664	2,001,625.2	8,712,917.2	211.95	30.174	8,727,470.9
8	138	1059	206,043.7	38.64	1.380	207,571.9	513,489.5	13,314.5	3.7	911,263.1	1,473,181.6	18,606.16	20.950	2,033,364.5	8,821,329.4	213.59	30.261	8,835,955.7
9	155	1214	231,425.9	43.40	1.550	233,142.3	551,643.8	14,309.0	3.9	979,124.5	1,583,481.5	20,018.50	22.514	2,186,179.2	9,477,448.1	229.25	32.446	9,493,137.3
10	184	1398	274,724.9	51.52	1.840	276,762.5	619,691.0	16,069.9	4.4	1,099,782.1	1,778,139.5	22,463.97	25.285	2,454,468.5	10,645,996.8	257.70	36.500	10,663,640.5
11	0	1398	0.0	0.00	0.000	0.0	391,181.9	10,259.4	2.4	697,568.0	1,140,901.0	14,838.04	16.140	1,587,480.7	6,734,837.5	157.94	21.625	6,745,447.7
12	0	1398	0.0	0.00	0.000	0.0	297,266.0	7,839.6	1.7	531,343.7	873,917.4	11,522.63	12.332	1,220,658.3	5,123,374.1	118.24	15.902	5,131,239.0
13	0	1398	0.0	0.00	0.000	0.0	242,779.0	6,425.9	1.3	434,623.1	717,455.8	9,543.30	10.108	1,004,605.6	4,187,221.0	95.61	12.702	4,193,537.9
14	0	1398	0.0	0.00	0.000	0.0	206,293.0	5,474.8	1.1	369,730.1	611,985.3	8,192.95	8.611	858,486.0	3,559,796.5	80.64	10.612	3,565,096.8
15	0	1398	0.0	0.00	0.000	0.0	179,826.8	4,782.6	0.9	322,590.1	535,102.0	7,199.98	7.522	751,715.0	3,104,379.6	69.88	9.126	3,108,953.3
16	0	1398	0.0	0.00	0.000	0.0	159,613.2	4,252.5	0.8	286,545.7	476,154.1	6,433.47	6.688	669,697.3	2,756,374.2	61.71	8.008	2,760,399.4
17	0	1398	0.0	0.00	0.000	0.0	143,604.8	3,831.8	0.7	257,972.9	429,320.3	5,821.10	6.027	604,434.1	2,480,649.2	55.29	7.134	2,484,244.4
18	0	1398	0.0	0.00	0.000	0.0	130,578.9	3,488.8	0.6	234,705.0	391,109.0	5,319.14	5.487	551,117.3	2,256,214.2	50.09	6.431	2,259,462.4
19	0	1398	0.0	0.00	0.000	0.0	119,754.5	3,203.3	0.5	215,355.9	359,281.0	4,899.36	5.038	506,657.2	2,069,650.0	45.78	5.852	2,072,612.0
20	0	1398	0.0	0.00	0.000	0.0	110,606.0	2,961.6	0.5	198,992.7	332,325.5	4,542.59	4.658	468,966.4	1,911,928.6	42.16	5.367	1,914,650.2
21	0	1398	0.0	0.00	0.000	0.0	102,765.7	2,754.3	0.4	184,961.7	309,182.1	4,235.33	4.332	436,577.4	1,776,727.8	39.06	4.955	1,779,244.7
22	0	1398	0.0	0.00	0.000	0.0	95,967.8	2,574.3	0.4	172,790.1	289,082.1	3,967.72	4.048	408,425.4	1,659,475.1	36.39	4.600	1,661,815.4
23	0	1398	0.0	0.00	0.000	0.0	90,014.8	2,416.5	0.4	162,126.5	271,453.6	3,732.43	3.800	383,717.4	1,556,774.1	34.05	4.292	1,558,960.6
24	0	1398	0.0	0.00	0.000	0.0	84,756.7	2,277.0	0.3	152,703.7	255,861.4	3,523.83	3.581	361,849.0	1,466,045.2	32.00	4.021	1,468,096.4
25	0	1398	0.0	0.00	0.000	0.0	80,077.4	2,152.7	0.3	144,315.2	241,968.0	3,337.56	3.385	342,351.6	1,385,291.0	30.17	3.781	1,387,222.3
26	0	1398	0.0	0.00	0.000	0.0	75,885.8	2,041.3	0.3	136,798.0	229,507.5	3,170.18	3.210	324,855.2	1,312,939.4	28.54	3.567	1,314,763.8
27	0	1398	0.0	0.00	0.000	0.0	72,108.8	1,940.9	0.3	130,022.3	218,267.2	3,018.91	3.052	309,063.9	1,247,735.3	27.07	3.376	1,249,463.6
28	0	1398	0.0	0.00	0.000	0.0	68,687.5	1,849.8	0.3	123,882.7	208,074.9	2,881.51	2.909	294,738.1	1,188,663.6	25.74	3.203	1,190,305.2
29	0	1398	0.0	0.00	0.000	0.0	65,573.7	1,766.9	0.2	118,293.3	198,789.7	2,756.14	2.778	281,681.2	1,134,894.1	24.54	3.047	1,136,457.1
30	0	1398	0.0	0.00	0.000	0.0	62,727.6	1,691.0	0.2	113,183.1	190,295.0	2,641.27	2.659	269,730.7	1,085,740.9	23.44	2.904	1,087,232.3
31	0	1286	0.0	0.00	0.000	0.0	56,157.9	1,514.4	0.2	101,342.8	170,441.1	2,367.36	2.381	241,638.7	972,087.5	20.97	2.594	973,420.5
32	0	1148	0.0	0.00	0.000	0.0	49,006.6	1,321.9	0.2	88,447.7	148,792.9	2,067.90	2.079	210,983.8	848,344.0	18.28	2.259	849,505.6
33	0	1057	0.0	0.00	0.000	0.0	43,852.1	1,183.2	0.2	79,155.7	133,203.1	1,852.54	1.861	188,916.9	759,163.0	16.34	2.017	760,200.8
34	0	951	0.0	0.00	0.000	0.0	38,419.0	1,036.9	0.1	69,357.4	116,748.4	1,624.75	1.631	165,611.2	665,144.2	14.31	1.764	666,052.0
35	0	821	0.0	0.00	0.000	0.0	32,384.4	874.3	0.1	58,469.7	98,446.8	1,370.85	1.375	139,673.3	560,696.3	12.05	1.484	561,460.4
36	0	622	0.0	0.00	0.000	0.0	24,165.3	652.5	0.1	43,633.4	73,478.7	1,023.56	1.026	104,260.8	418,406.3	8.99	1.106	418,976.0
37	0	477	0.0	0.00	0.000	0.0	18,169.0	490.7	0.1	32,809.4	55,262.8	770.17	0.772	78,424.6	314,598.0	6.75	0.830	315,025.9
38	0	339	0.0	0.00	0.000	0.0	12,648.9	341.7	0.0	22,843.3	38,484.6	536.60	0.537	54,622.1	219,025.4	4.70	0.577	219,322.9
39	0	184	0.0	0.00	0.000	0.0	6,732.0	181.9	0.0	12,158.8	20,488.4	285.81	0.286	29,083.5	116,575.1	2.50	0.307	116,733.2
Total (MT)	1398		2,087,312	391.44	13.980	2,102,793	7,167,551	187,715.96	44.956	12,773,760	20,862,120	270,363.17	295.315	28,999,563	123,367,784	2,904.73	399.491	123,563,406
Max Year			297,120.9	55.72	1.990	299,325	619,691.0	16,069.90	4.425	1,099,782	1,778,139.5	22,463.97	25.285	2,454,469	10,645,996.8	257.70	36.500	10,663,640
Average Year			183,783.4	4,813.23	1.2	327,532.3	534,926.1	6,932.39	7.572	743,579					3,163,276.5	74.48	10.243	3,168,292
			Development Percent of Total =				Operations Percent of Total =				Mid-Stream Percent of Total =				End-Use Percent of Total =			
			1%				8%				17%				74%			

Table 105. Annual CAP and HAP emissions for the Resource Conflict Avoidance Alternative (Alt C) in Tons Per Year.

Calendar Year	# Wells		Well Development Emissions								Well Operation Emissions								Sum of Well Development and Operation Emissions							
	Year	Developed	Operating	PM ₁₀	PM _{2.5}	VOC	NO _x	CO	SO ₂	HAPs	PM ₁₀	PM _{2.5}	VOC	NO _x	CO	SO ₂	HAPs	PM ₁₀	PM _{2.5}	VOC	NO _x	CO	SO ₂	HAPs		
2026	1	31	31	61.1	18.3	35.1	343.5	164.6	2.17	3.72	22.0	7.1	244.0	65.4	107.0	0.31	19.84	83.1	25.4	279.0	408.9	271.6	2.48	23.56		
2027	2	38	69	74.9	22.4	43.0	421.0	201.8	2.66	4.56	49.0	15.9	543.0	145.6	238.1	0.69	44.16	123.9	38.3	586.0	566.6	439.8	3.35	48.72		
2028	3	25	94	49.3	14.8	28.3	277.0	132.8	1.75	3.00	66.7	21.6	738.8	198.3	324.3	0.94	60.16	116.0	36.4	768.1	475.3	457.1	2.69	63.16		
2029	4	29	123	57.1	17.1	32.8	321.3	154.0	2.03	3.48	87.3	28.3	968.0	259.5	424.4	1.23	78.72	144.5	45.4	1,000.8	580.9	578.3	3.26	82.20		
2030	5	37	160	72.9	21.8	41.8	410.0	196.5	2.59	4.44	113.6	36.8	1259.2	337.6	552.0	1.60	102.40	186.5	58.6	1,301.0	747.6	748.5	4.19	106.84		
2031	6	55	215	108.4	32.5	62.2	609.4	292.1	3.85	6.60	152.7	49.5	1692.1	453.7	741.8	2.15	137.60	261.0	81.9	1,754.3	1,063.1	1,033.8	6.00	144.20		
2032	7	40	255	78.8	23.6	45.2	443.2	212.4	2.80	4.80	181.1	58.7	2006.9	538.1	879.8	2.55	163.20	259.9	82.3	2,052.1	981.3	1,092.2	5.35	168.00		
2033	8	38	293	74.9	22.4	43.0	421.0	201.8	2.66	4.56	208.0	67.4	2305.9	618.2	1010.9	2.93	187.52	282.9	89.8	2,348.9	1,039.3	1,212.6	5.59	192.08		
2034	9	43	336	84.7	25.4	48.6	476.4	228.3	3.01	5.16	238.6	77.3	2644.3	709.0	1159.2	3.36	215.04	323.3	102.7	2,693.0	1,185.4	1,387.5	6.37	220.20		
2035	10	50	386	98.5	29.5	56.6	554.0	265.5	3.50	6.00	274.1	88.8	3037.8	814.5	1331.7	3.86	247.04	372.6	118.3	3,094.4	1,368.5	1,597.2	7.36	253.04		
2036	11	0	386	0.0	0.0	0.0	0.0	0.0	0.00	0.00	274.1	88.8	3037.8	814.5	1331.7	3.86	247.04	274.1	88.8	3,037.8	814.5	1,331.7	3.86	247.04		
2037	12	0	386	0.0	0.0	0.0	0.0	0.0	0.00	0.00	274.1	88.8	3037.8	814.5	1331.7	3.86	247.04	274.1	88.8	3,037.8	814.5	1,331.7	3.86	247.04		
2038	13	0	386	0.0	0.0	0.0	0.0	0.0	0.00	0.00	274.1	88.8	3037.8	814.5	1331.7	3.86	247.04	274.1	88.8	3,037.8	814.5	1,331.7	3.86	247.04		
2039	14	0	386	0.0	0.0	0.0	0.0	0.0	0.00	0.00	274.1	88.8	3037.8	814.5	1331.7	3.86	247.04	274.1	88.8	3,037.8	814.5	1,331.7	3.86	247.04		
2040	15	0	386	0.0	0.0	0.0	0.0	0.0	0.00	0.00	274.1	88.8	3037.8	814.5	1331.7	3.86	247.04	274.1	88.8	3,037.8	814.5	1,331.7	3.86	247.04		
2041	16	0	386	0.0	0.0	0.0	0.0	0.0	0.00	0.00	274.1	88.8	3037.8	814.5	1331.7	3.86	247.04	274.1	88.8	3,037.8	814.5	1,331.7	3.86	247.04		
2042	17	0	386	0.0	0.0	0.0	0.0	0.0	0.00	0.00	274.1	88.8	3037.8	814.5	1331.7	3.86	247.04	274.1	88.8	3,037.8	814.5	1,331.7	3.86	247.04		
2043	18	0	386	0.0	0.0	0.0	0.0	0.0	0.00	0.00	274.1	88.8	3037.8	814.5	1331.7	3.86	247.04	274.1	88.8	3,037.8	814.5	1,331.7	3.86	247.04		
2044	19	0	386	0.0	0.0	0.0	0.0	0.0	0.00	0.00	274.1	88.8	3037.8	814.5	1331.7	3.86	247.04	274.1	88.8	3,037.8	814.5	1,331.7	3.86	247.04		
2045	20	0	386	0.0	0.0	0.0	0.0	0.0	0.00	0.00	274.1	88.8	3037.8	814.5	1331.7	3.86	247.04	274.1	88.8	3,037.8	814.5	1,331.7	3.86	247.04		
2046	21	0	386	0.0	0.0	0.0	0.0	0.0	0.00	0.00	274.1	88.8	3037.8	814.5	1331.7	3.86	247.04	274.1	88.8	3,037.8	814.5	1,331.7	3.86	247.04		
2047	22	0	386	0.0	0.0	0.0	0.0	0.0	0.00	0.00	274.1	88.8	3037.8	814.5	1331.7	3.86	247.04	274.1	88.8	3,037.8	814.5	1,331.7	3.86	247.04		
2048	23	0	386	0.0	0.0	0.0	0.0	0.0	0.00	0.00	274.1	88.8	3037.8	814.5	1331.7	3.86	247.04	274.1	88.8	3,037.8	814.5	1,331.7	3.86	247.04		
2049	24	0	386	0.0	0.0	0.0	0.0	0.0	0.00	0.00	274.1	88.8	3037.8	814.5	1331.7	3.86	247.04	274.1	88.8	3,037.8	814.5	1,331.7	3.86	247.04		
2050	25	0	386	0.0	0.0	0.0	0.0	0.0	0.00	0.00	274.1	88.8	3037.8	814.5	1331.7	3.86	247.04	274.1	88.8	3,037.8	814.5	1,331.7	3.86	247.04		
2051	26	0	386	0.0	0.0	0.0	0.0	0.0	0.00	0.00	274.1	88.8	3037.8	814.5	1331.7	3.86	247.04	274.1	88.8	3,037.8	814.5	1,331.7	3.86	247.04		
2052	27	0	386	0.0	0.0	0.0	0.0	0.0	0.00	0.00	274.1	88.8	3037.8	814.5	1331.7	3.86	247.04	274.1	88.8	3,037.8	814.5	1,331.7	3.86	247.04		
2053	28	0	386	0.0	0.0	0.0	0.0	0.0	0.00	0.00	274.1	88.8	3037.8	814.5	1331.7	3.86	247.04	274.1	88.8	3,037.8	814.5	1,331.7	3.86	247.04		
2054	29	0	386	0.0	0.0	0.0	0.0	0.0	0.00	0.00	274.1	88.8	3037.8	814.5	1331.7	3.86	247.04	274.1	88.8	3,037.8	814.5	1,331.7	3.86	247.04		
2055	30	0	386	0.0	0.0	0.0	0.0	0.0	0.00	0.00	274.1	88.8	3037.8	814.5	1331.7	3.86	247.04	274.1	88.8	3,037.8	814.5	1,331.7	3.86	247.04		
2056	31	0	355	0.0	0.0	0.0	0.0	0.0	0.00	0.00	252.1	81.7	2793.9	749.1	1224.8	3.55	227.20	252.1	81.7	2793.9	749.1	1224.8	3.55	227.20		
2057	32	0	317	0.0	0.0	0.0	0.0	0.0	0.00	0.00	225.1	72.9	2494.8	668.9	1093.7	3.17	202.88	225.1	72.9	2494.8	668.9	1093.7	3.17	202.88		
2058	33	0	292	0.0	0.0	0.0	0.0	0.0	0.00	0.00	207.3	67.2	2298.0	616.1	1007.4	2.92	186.88	207.3	67.2	2298.0	616.1	1007.4	2.92	186.88		
2059	34	0	263	0.0	0.0	0.0	0.0	0.0	0.00	0.00	186.7	60.5	2069.8	554.9	907.4	2.63	168.32	186.7	60.5	2069.8	554.9	907.4	2.63	168.32		
2060	35	0	226	0.0	0.0	0.0	0.0	0.0	0.00	0.00	160.5	52.0	1778.6	476.9	779.7	2.26	144.64	160.5	52.0	1778.6	476.9	779.7	2.26	144.64		
2061	36	0	171	0.0	0.0	0.0	0.0	0.0	0.00	0.00	121.4	39.3	1345.8	360.8	590.0	1.71	109.44	121.4	39.3	1,345.8	360.8	590.0	1.71	109.44		
2062	37	0	131	0.0	0.0	0.0	0.0	0.0	0.00	0.00	93.0	30.1	1031.0	276.4	452.0	1.31	83.84	93.0	30.1	1,031.0	276.4	452.0	1.31	83.84		
2063	38	0	93	0.0	0.0	0.0	0.0	0.0	0.00	0.00	66.0	21.4	731.9	196.2	320.9	0.93	59.52	66.0	21.4	731.9	196.2	320.9	0.93	59.52		
2064	39	0	50	0.0	0.0	0.0	0.0	0.0	0.00	0.00	35.5	11.5	393.5	105.5	172.5	0.50	32.00	35.5	11.5	393.5	105.5	172.5	0.50	32.00		
Total (MT)				760.4	227.7	436.6	4,276.9	2,049.7	27.02	46.32	8,221.8	2,663.4	91,134.6	24,433.8	39,951.0	115.80	7,411.20	8,982	2,891	91,571	28,711	42,001	143	7,458		
Max Year				108.4	32.5	62.2	609.4	292.1	3.85	6.60	274.1	88.8	3,037.8	814.5	1,331.7	3.86	247.04	372.6	118.3	3,094.4	1,368.5	1,597.2	7.4	253.0		
Average Year				76.0	22.8	43.7	427.7	205.0	2.7	4.6	210.8	68.3	2,336.0	626.5	1,024.4	3.0	190.0	230.3	74.1	2,348.0	736.2	1,076.9	3.7	191.2		
Minimum Year				49.3	14.8	28.3	277.0	132.8	1.8	3.0	22.0	7.1	244.0	65.4	107.0	0.3	19.8	35.5	11.5	279.0	105.5	172.5	0.5	23.6		
Max Development Year (Short-Term)																		372.6	118.3	3,094.4	1,368.5	1,597.2	7.4	253.0		
Max Production Year (Long-Term)																		274.1	88.8	3,037.8	814.5	1,331.7	3.9	247.0		

Table 106. Annual GHG Emissions for the Resource Conflict Avoidance Alternative (Alt C) in Metric Tonnes

Years	# Wells		Well Development Emissions				Well Operation Emissions				Mid-Stream Emissions				End-Use Emissions			
	Developed	Operating	CO2	CH4	N2O	CO2e (100-yr)	CO2	CH4	N2O	CO2e (100-yr)	CO2	CH4	N2O	CO2e (100-yr)	CO2	CH4	N2O	CO2e (100-yr)
1	31	31	46,285.2	8.68	0.310	46,628.5	57,374.5	1,487.4	0.4	101,811.0	164,558.2	2,077.28	2.340	227,100.0	985,609.7	23.88	3.385	987,245.3
2	38	69	56,736.7	10.64	0.380	57,157.5	97,182.8	2,528.5	0.7	172,712.6	280,184.8	3,570.28	3.978	387,665.1	1,670,599.9	40.07	5.622	1,673,328.8
3	25	94	37,326.8	7.00	0.250	37,603.6	96,481.9	2,521.3	0.6	171,785.7	279,931.5	3,607.54	3.967	388,519.1	1,659,942.2	39.33	5.446	1,662,601.0
4	29	123	43,299.0	8.12	0.290	43,620.2	109,210.4	2,857.5	0.7	194,553.4	317,441.7	4,104.14	4.495	440,972.5	1,879,389.0	44.37	6.120	1,882,381.9
5	37	160	55,243.6	10.36	0.370	55,653.3	133,068.6	3,482.5	0.8	237,075.9	386,902.3	5,004.73	5.479	537,538.9	2,290,050.5	54.03	7.448	2,293,694.1
6	55	215	82,118.9	15.40	0.550	82,727.9	180,685.5	4,725.1	1.2	321,809.7	524,791.3	6,775.67	7.434	728,735.8	3,109,076.1	73.51	10.156	3,114,039.5
7	40	255	59,722.8	11.20	0.400	60,165.8	179,243.8	4,700.7	1.1	319,624.9	522,726.8	6,797.29	7.395	727,304.9	3,085,939.0	72.38	9.913	3,090,802.1
8	38	293	56,736.7	10.64	0.380	57,157.5	181,316.8	4,762.2	1.1	323,528.7	529,921.3	6,916.88	7.492	738,089.4	3,122,532.9	72.92	9.939	3,127,419.3
9	43	336	64,202.0	12.04	0.430	64,678.2	195,233.7	5,129.2	1.2	348,402.5	570,825.5	7,455.99	8.069	795,216.8	3,362,383.1	78.46	10.684	3,367,638.1
10	50	386	74,653.5	14.00	0.500	75,207.2	217,507.6	5,713.7	1.3	388,131.7	635,842.2	8,302.78	8.988	885,718.8	3,745,907.0	87.44	11.911	3,751,764.5
11	0	386	0.0	0.00	0.000	0.0	138,658.2	3,678.3	0.7	248,465.1	411,085.4	5,497.71	5.786	576,496.5	2,392,488.2	54.27	7.153	2,396,058.1
12	0	386	0.0	0.00	0.000	0.0	105,865.8	2,821.8	0.5	190,090.3	316,008.2	4,273.94	4.438	444,583.1	1,828,357.0	40.88	5.297	1,831,021.3
13	0	386	0.0	0.00	0.000	0.0	86,721.5	2,318.7	0.4	155,922.5	260,011.7	3,542.02	3.647	366,559.5	1,498,629.9	33.20	4.251	1,500,779.6
14	0	386	0.0	0.00	0.000	0.0	73,849.6	1,979.0	0.3	132,909.9	222,143.5	3,042.13	3.112	313,648.5	1,276,761.0	28.08	3.564	1,278,570.8
15	0	386	0.0	0.00	0.000	0.0	64,484.8	1,731.2	0.3	116,146.3	194,475.6	2,674.25	2.723	274,911.7	1,115,251.4	24.39	3.074	1,116,817.4
16	0	386	0.0	0.00	0.000	0.0	57,315.9	1,541.1	0.2	103,300.7	173,224.7	2,390.12	2.423	245,111.7	991,557.9	21.59	2.704	992,939.2
17	0	386	0.0	0.00	0.000	0.0	51,627.8	1,389.9	0.2	93,100.2	156,317.0	2,163.02	2.186	221,371.7	893,377.7	19.37	2.414	894,613.9
18	0	386	0.0	0.00	0.000	0.0	46,992.3	1,266.5	0.2	84,781.4	142,506.0	1,976.80	1.992	201,958.5	813,339.8	17.57	2.180	814,458.5
19	0	386	0.0	0.00	0.000	0.0	43,135.0	1,163.7	0.2	77,855.1	130,990.6	1,821.03	1.830	185,756.9	746,721.2	16.08	1.987	747,742.9
20	0	386	0.0	0.00	0.000	0.0	39,871.1	1,076.6	0.1	71,991.2	121,229.7	1,688.61	1.693	172,012.5	690,338.3	14.83	1.825	691,278.4
21	0	386	0.0	0.00	0.000	0.0	37,071.1	1,001.8	0.1	66,958.4	112,842.8	1,574.54	1.575	160,194.2	641,957.9	13.76	1.687	642,828.4
22	0	386	0.0	0.00	0.000	0.0	34,641.1	936.8	0.1	62,588.8	105,553.9	1,475.18	1.473	149,916.4	599,962.8	12.83	1.568	600,773.1
23	0	386	0.0	0.00	0.000	0.0	32,511.4	879.7	0.1	58,757.5	99,157.4	1,387.80	1.383	140,891.5	563,149.8	12.01	1.465	563,907.7
24	0	386	0.0	0.00	0.000	0.0	30,628.8	829.3	0.1	55,369.8	93,496.6	1,310.32	1.304	132,900.3	530,604.5	11.30	1.374	531,316.1
25	0	386	0.0	0.00	0.000	0.0	28,952.3	784.4	0.1	52,351.9	88,450.1	1,241.13	1.233	125,772.6	501,617.6	10.66	1.293	502,288.3
26	0	386	0.0	0.00	0.000	0.0	27,449.6	744.0	0.1	49,646.0	83,921.9	1,178.95	1.170	119,374.1	475,630.9	10.09	1.221	476,265.0
27	0	386	0.0	0.00	0.000	0.0	26,094.7	707.7	0.1	47,205.5	79,835.5	1,122.75	1.113	113,597.3	452,197.9	9.58	1.156	452,799.1
28	0	386	0.0	0.00	0.000	0.0	24,866.7	674.7	0.1	44,993.1	76,128.5	1,071.70	1.061	108,354.8	430,957.4	9.11	1.098	431,528.9
29	0	386	0.0	0.00	0.000	0.0	23,748.5	644.6	0.1	42,978.0	72,750.3	1,025.11	1.014	103,575.4	411,613.8	8.69	1.045	412,158.2
30	0	386	0.0	0.00	0.000	0.0	22,725.9	617.1	0.1	41,134.8	69,658.5	982.43	0.970	99,199.7	393,922.6	8.31	0.997	394,442.4
31	0	355	0.0	0.00	0.000	0.0	20,346.5	552.7	0.1	36,832.2	62,388.5	880.40	0.869	88,861.6	352,697.0	7.43	0.891	353,161.7
32	0	317	0.0	0.00	0.000	0.0	17,762.9	482.6	0.1	32,158.3	54,483.6	769.22	0.759	77,613.4	307,924.7	6.48	0.777	308,330.0
33	0	292	0.0	0.00	0.000	0.0	15,903.9	432.2	0.0	28,796.0	48,799.8	689.37	0.680	69,528.5	275,712.2	5.80	0.694	276,074.5
34	0	263	0.0	0.00	0.000	0.0	13,949.0	379.2	0.0	25,259.2	42,816.4	605.17	0.596	61,013.1	241,834.5	5.08	0.607	242,151.8
35	0	226	0.0	0.00	0.000	0.0	11,710.6	318.4	0.0	21,207.8	35,956.5	508.44	0.501	51,244.8	203,035.6	4.27	0.509	203,301.7
36	0	171	0.0	0.00	0.000	0.0	8,728.7	237.3	0.0	15,808.5	26,806.2	379.17	0.373	38,207.2	151,340.2	3.18	0.379	151,538.4
37	0	131	0.0	0.00	0.000	0.0	6,557.1	178.3	0.0	11,876.5	20,142.2	285.01	0.280	28,712.2	113,692.5	2.39	0.284	113,841.2
38	0	93	0.0	0.00	0.000	0.0	4,560.6	124.1	0.0	8,261.1	14,013.1	198.37	0.195	19,977.6	79,079.1	1.66	0.198	79,182.5
39	0	50	0.0	0.00	0.000	0.0	2,405.1	65.4	0.0	4,356.8	7,391.6	104.67	0.103	10,539.0	41,704.2	0.87	0.104	41,758.7
Total (MT)	386		576,325	108.08	3.860	580,600	2,546,442	67,464.74	13.362	4,560,539	7,535,712	100,471.93	106.117	10,558,745	43,926,887	1,000.17	132.419	43,992,842
Max Year			82,118.9	15.40	0.550	82,728	217,507.6	5,713.68	1.306	388,132	635,842.2	8,302.78	8.988	885,719	3,745,907.0	87.44	11.911	3,751,765
Average Year							65,293.4	1,729.87	0.3	116,936.9	193,223.4	2,576.20	2.721	270,737	1,126,330.4	25.65	3.395	1,128,022
			Development Percent of Total =				Operations Percent of Total =				Mid-Stream Percent of Total =				End-Use Percent of Total =			
			1%				8%				18%				74%			

APPENDIX K. GREATER SAGE-GROUSE PRIORITIZATION

Utah Greater Sage-grouse Plan Conformance and Leasing Prioritization Considerations July 2025

Wildearth Guardians (WEG) filed a series of lawsuits beginning in 2016 challenging oil & gas lease sales in multiple states from 2015 to 2019, primarily challenging the analysis of greenhouse gases (GHGs). BLM settled these lawsuits with WEG in 2022 and agreed to conduct additional NEPA analysis. BLM-UT has been directed to draft an EA to analyze the challenged leases in Utah and make a decision on whether to affirm its previous decisions to offer and issue the leases.

For the 195 leases analyzed in the EA, the BLM has completed a prioritization process on prior leased parcels using prioritization methods in place at the time. The leases within Greater Sage-grouse (GRSG) habitat have been retroactively evaluated based on BLM-Utah's current prioritization process for leasing in GRSG habitat, based on an evaluation and balancing of biological components (described below) and fluid mineral components (described below), to fully comply with applicable provisions of the 2015 GRSG Resource Management Plan Amendment (ARMPA) to reduce impacts from potential fluid mineral development on GRSG and its habitat. This is not to say that the leases were not considered previously at the time of leasing decisions under prior prioritization policy; however, BLM-UT felt it was appropriate to bring all leases under the current prioritization process through this review. This review applies Management Actions (MAs) from the ARMPA and associated stipulations that pertain to unleased fluid minerals in GRSG management areas as listed above. Implementation of these MAs and stipulations help to mitigate disturbance, habitat loss, and cumulative impacts to GRSG. The ARMPA provides that "priority will be given to development in non-habitat areas first and then in the least suitable habitat for GRSG" (Objective MR-1).

The 2015 GRSG Record of Decision (ROD), describes how this objective is intended "to guide development to lower conflict areas and, as such, protect important habitat." This leasing prioritization strategy was developed as one of the tools the BLM would apply to meet that objective. Review of plan conformance is conducted during the lease sale process and again during proposed site-specific actions, such as when processing an Application for Permit to Drill (APD). At both stages, the BLM coordinates with the State of Utah to address any concerns related to GRSG or wildlife.

The BLM has prioritized leasing and development outside Priority Habitat Management Areas (PHMA) and General Habitat Management Areas (GHMA) to limit surface disturbance and encourage new development in areas outside GRSG habitat, consistent with the ROD. In addition to the multiple MAs in the ARMPA, the following framework was used to assist the BLM UT in its prioritization process for the subject leases in this review.

The ARMPA includes several MAs and stipulations intended to achieve the desired condition explained in the Objective MR-1, which is "leasing and development of fluid mineral resources...outside of [Priority Habitat Management Areas] PHMA and [General Habitat Management Areas] GHMA" and to give priority "to development in non-habitat areas first and

then in the least suitable habitat for GRSG”. The no surface occupancy (NSO) stipulation represents a fluid mineral leasing allocation decision for PHMA and provides that certain areas may be “open to leasing, subject to NSO stipulations” which preclude any new surface occupying fluid mineral development in PHMA.

There are also several MAs that help to avoid sensitive areas and that limit future surface disturbance and disruptive developments in PHMA and GHMA. These include (1) disturbance caps (MA-SSS-3B), (2) density caps (MA-SSS-3C), (3) noise restrictions (MA-SSS-3E), (4) tall structure restrictions (MA-SSS-3F), (5) seasonal restrictions (MA-SSS-3G), (6) buffers (MA-SSS-3H and MA-SSS-5C)), and (7) application of Required Design Features (MA-SSS-3I and MA-SSS-5D). The overlapping combination of all these measures achieves Objective MR-1 by creating a strong economic incentive to lease and develop outside PHMA as a result of the significant restrictions on development within PHMA. Even if PHMA were leased, it would be “subject to [these] applicable stipulations for the conservation of GRSG” as specifically noted in Objective MR-1. In combination with the land use allocations and stipulations in the ARMPA, a strategy that encourages new development in areas that would not conflict with GRSG could help the agency determine which lands to offer for leasing on a quarterly basis. In addition to those MAs, this prioritization strategy outlines a process to help inform the BLM Authorized Officer in identifying areas of important habitat and sensitive areas in an effort to encourage leasing and development to lower conflict areas. This prioritization occurs at both the leasing stage as described here in this appendix, and again at the development stage where habitat availability and quality would be considered, as described in ARMPA MA-MR-6.

Prioritization Process Outline

The BLM has evaluated all leases analyzed in this EA within GRSG PHMA and GHMA in terms of their biological components, such as: (1) the amount of PHMA/GHMA in each lease; (2) the lease’s proximity to active leks; (3) habitat treatments since the ARMPA; (4) areas identified for GRSG habitat recovery from wildfire; and (5) input from the Adaptive Management Strategy Team in coordination with the Utah Division of Wildlife Resources where appropriate. These components are included in Table 107.

The BLM has also evaluated leases in terms of certain fluid mineral considerations: (1) whether the lease is adjacent to existing leases; (2) the lease’s proximity to and density of existing oil and gas well(s) (producing well(s)); (3) whether there are nearby oil and gas agreements (communitization, exploratory unit, and secondary recovery); (4) potential drainage cases; (5) oil and gas potential; and (6) the well data map. These components are included in Table 108.

Biological Components

For this lease review, GRSG associated leases occur within the Lucerne, Uintah Mountain, east of Anthro Mountain, Rich, Sheeprock, and Parker Mountain population areas for a total of 81 leases. (see Table 107 and Table 108).

Lucerne

Lucerne is north of the Uinta Mountains near the Wyoming border and has no known leks; however, GRSG use the area coming from the adjacent Wyoming Basin GRSG population. This area ranges in elevation between 7,200 and 9,000 feet and is largely private and Trust Land owned. Vegetation ranges from Wyoming big sagebrush communities with pinyon pine-juniper encroachment and high elevation conifer. The majority of GRSG are using the area west of Manila near Phil Pico Mountain. Four (4) leases overlap with the Lucerne GHMA: UTU93979, UTU93980, UTU93981, and UTU93982.

Uinta Mountain

The Uinta Mountain population area includes seven separate habitat and distinct populations. Threats that USFWS noted in the COT report for the Uinta population area include fire, conifer encroachment, weeds/annual grasses, energy, mining, infrastructure, recreation, and urbanization. The leases within the Uinta population area are within the Halfway Hollow/McCoy Flats, Deadman's Bench, East Bench and Book Cliffs GHMA.

Eight (8) leases (UTU92679, UTU92682, UTU92683, UTU92684, UTU93946, UTU93947, and UTU93948) are in the Halfway Hollow/McCoy Flats GHMA. The Halfway Hollow/McCoy Flats area is characterized by relatively contiguous habitat in the northern portion with energy and human-related fragmentation in the southern portion. The area is characterized by Wyoming big sagebrush in the low elevations, mountain sagebrush in the higher elevations, and some pinyon-juniper encroachment. There is an active lek in the PHMA north of the Halfway Hollow/McCoy Flats area, over 3 miles away from the nearest lease.

The populations in Deadman's Bench, East Bench and the Book Cliffs GHMA have steadily declined and one of the primary threats in the low elevations may be gas development, which is extensive in proximity to many of the leases and the unoccupied leks in this area.

Thirty-seven (37) leases (see Table 107 and Table 108) are within the Deadman's Bench GHMA. Deadman's Bench is a dry, low elevation Wyoming big sagebrush site. Nonnative weeds are common; in particular, cheatgrass is abundant and is a management concern. Limited telemetry monitoring indicates some Deadman's Bench birds stayed in the area year-round. Other birds moved north of Deadman's Bench into Snake John Reef and Thunder Ranch (10-13 miles north of Highway 40). During sagebrush removal projects since 2015 winter bird use in the area has been verified, but the origin of the birds is unknown. There are 2 unoccupied leks within the Deadman's Bench area, all counts completed by Utah Division of Wildlife Resources in the past 10 years have been zero (personal communication, UDWR, May 2, 2025).

Twenty-one (21) leases (see Table 107 and Table 108) are within the East Bench/Book Cliffs GHMA. This area is primarily Wyoming big sagebrush and black sagebrush in the low elevation and pinyon-juniper with pockets of mountain sagebrush in the upper elevations. This population has steadily declined and one of the primary threats in the low elevations may be gas development, which is extensive in proximity to the leases and the leks in this area. Threats that USFWS noted in the COT report for the Uintah population area include fire, conifer encroachment, weeds/annual grasses, energy, mining, infrastructure, recreation, and urbanization. The East Bench lek counts steadily declined since 2005. There are three inactive leks and two historical leks within the East Bench area, all counts completed by Utah Division of

Wildlife Resources in the past 10 years have been zero (personal communication, UDWR, May 2, 2025).

Anthro Mountain (Sand Wash and Big Wash)

There are two GHMA polygons east of Anthro Mountain that are located in Sand Wash and Big Wash. These habitat areas are important winter habitat (personal communication with UDWR and BLM biologists). Six (6) leases (UTU91937, UTU93260, UTU93261, UTU93881, UTU93882, and UTU94135) are within these two GHMA areas. Due to their proximity to Anthro Mountain, habitat characteristics in the area are very similar. The area is composed of naturally fragmented sagebrush across a large plateau dissected with a series of drainages leading to the Green River Basin. These GHMA polygons are within 5-13 miles of the Anthro Mountain population and the Anthro GRSG have been documented moving up to 25 miles. Energy development is common in these areas. Habitat within these areas range from high-elevation Wyoming big sagebrush to drier low elevation black sagebrush areas. Pinyon-juniper is prominent in the drainages and some encroachment in the black sagebrush communities. The Anthro Mountain population is a small collection of separate blocks of habitat and is a small population likely making it more susceptible to stochastic events. There is one unoccupied lek in the Sand Wash GHMA area.

Rich

One lease (UTU93433) is within the Rich PHMA. One of Utah's largest populations, the Rich Population Area is in the northeast corner of Utah that links to populations in Idaho and Wyoming. This population is composed of large, relatively contiguous habitats and is connected with large Wyoming greater sage-grouse populations. Anthropogenic disturbances are present within the population area, and sage-grouse winter habitat has been reduced due to mechanical vegetation treatments to thin sagebrush density in Rich County over the last 3 to 4 decades. Large amounts of remaining upper elevation, contiguous habitat likely makes the populations more resilient than more habitat-restricted GRSG populations in Utah. Wyoming big sagebrush, low sagebrush, and black sagebrush are dominant in the lower elevations with patches of basin big sagebrush. Higher elevations are a mix of mountain big sagebrush mixed with aspen, mountain mahogany and conifers. The nearest occupied lek is within 3.4 miles of the lease.

Sheeprock

Three leases (UTU92487, UTU92765, and UTU92807) are within the Sheeprock PHMA in the vicinity of Dog Valley. The nearest occupied lek is 4.6 miles from the closest lease. In 2015, active male lek counts within the Sheeprock Population Area were much reduced compared to 2006 active male lek counts. Because of a long-term downward population trend in this population, a hard trigger was met. Through adaptive management thresholds were identified in Appendix A of the 2015 GRSG ARMPA (BLM 2015), which resulted in portions of the population that were identified in the ARMPA (BLM 2015) as GHMA being changed to PHMA with corresponding changes in management to reflect the higher prioritization in this area, as well as an increased emphasis in habitat restoration and protection (e.g., no surface occupancy, disturbance cap, parcel prioritization). Recent lek counts and trend analysis show the population is stable to increasing. This landscape is generally rolling/low mountain topography with higher amounts of sagebrush at lower elevation within broader valleys/basins and juniper dominated communities on steeper slopes and ridgelines. Sagebrush does occur within juniper stands

although scattered and at reduced densities. It is likely the juniper community had a substantial sagebrush component historically under a more natural disturbance regime, but over the years, the vegetation community has been altered by juniper encroachment, range vegetation type conversions, wildfire, and wildfire rehabilitation. As part of the hard trigger, a variety of habitat improvement projects have occurred within the population area primarily associated with pinyon-juniper removal and seeding.

Parker Mountain

One lease (UTU93250) is within the Parker Mountain PHMA north of the Fremont Bench near the Mill Meadow Reservoir and Fremont River. The Parker Mountain PHMA is on the Awapa and Aquarius Plateau, which includes pockets of habitat on Monroe Mountain and Sevier Plateau, Grass Valley, and John's Valley. The Parker Mountain area includes diverse habitats ranging from low elevation Wyoming big sagebrush in the valleys up to mountain shrub/aspens at 10,000 feet elevation. However, vegetation within the lease is largely Wyoming big sagebrush in the valleys with some encroaching pinyon pine-juniper on the edges transitioning to a more dominant pinyon pine-juniper woodland site at approximately 7,000 feet elevation. Mill Meadow Reservoir is located within the lease. The water flowing out of the reservoir enters an intact riparian corridor with a cottonwood/willow complex. The riparian corridor contains several dispersed campsites, reflecting its use for recreation. In 2021, the population hit a hard trigger; however, has since rebounded and is increasing.

The eighty-one (81) leases in this review that are within GRSG habitat have been evaluated based on the biological and fluid components listed below in the tables.

Table 107. Overview of Biological Components of Each Lease Considered

Lease #	(Field Office/GRSG Population)	Lease Size (Acres)	% w/in GHMA	% w/in PHMA	Occupied leks w/in 3.1 mi (#)	Habitat treatments since ARMPA (acres)	Wildfire since ARMPA (acres)	Adaptive Management Trigger Met (Yes/No)
UTU93979	Lucerne	719.28	72.97	0.00	0.00	0.00	0	No
UTU93980	Lucerne	2062.09	82.90	0.00	0.00	0.00	0	No
UTU93981	Lucerne	1268.72	38.37	0.00	0.00	0.00	0	No
UTU93982	Lucerne	1142.96	36.55	0.00	0.00	0.00	0	No
UTU92679	Uintah Mountains/Halfway Hollow/McCoy Flats	930.14	100.00	0.00	0.00	0.00	0	No
UTU92680	Uintah Mountains/Halfway Hollow/McCoy Flats	1455.50	100.00	0.00	0.00	0.00	0	No
UTU92682	Uintah Mountains/Halfway Hollow/McCoy Flats	1780.25	100.00	0.00	0.00	0.00	0	No
UTU92683	Uintah Mountains/Halfway Hollow/McCoy Flats	1150.37	100.00	0.00	0.00	0.00	0	No
UTU92684	Uintah Mountains/Halfway Hollow/McCoy Flats	1750.39	71.06	0.00	0.00	0.00	0	No
UTU93946	Uintah Mountains/Halfway Hollow/McCoy Flats	254.14	100.00	0.00	0.00	0.00	0	No

Lease #	(Field Office/GRSG Population)	Lease Size (Acres)	% w/in GHMA	% w/in PHMA	Occupied leks w/in 3.1 mi (#)	Habitat treatments since ARMPA (acres)	Wildfire since ARMPA (acres)	Adaptive Management Trigger Met (Yes/No)
UTU93947	Uintah Mountains/Halfway Hollow/McCoy Flats	1685.26	100.00	0.00	0.00	0.00	0	No
UTU93948	Uintah Mountains/Halfway Hollow/McCoy Flats	158.11	100.00	0.00	0.00	0.00	0	No
UTU92701	Uintah Mountains/Deadmans Bench	319.88	100.00	0.00	0.00	0.00	0	No
UTU92702	Uintah Mountains/Deadmans Bench	718.55	100.00	0.00	0.00	0.00	0	No
UTU92703	Uintah Mountains/Deadmans Bench	358.74	76.73	0.00	0.00	0.00	0	No
UTU92704	Uintah Mountains/Deadmans Bench	553.01	100.00	0.00	0.00	0.00	0	No
UTU92708	Uintah Mountains/Deadmans Bench	2399.11	60.06	0.00	388.85	98.47	0	No
UTU92709	Uintah Mountains/Deadmans Bench	1577.77	1.79	0.00	16.94	0.00	0	No
UTU92710	Uintah Mountains/Deadmans Bench	1924.72	56.28	0.00	372.00	134.34	0	No
UTU92711	Uintah Mountains/Deadmans Bench	2561.53	45.95	0.00	430.05	181.26	0	No
UTU92712	Uintah Mountains/Deadmans Bench	2375.07	90.92	0.00	303.56	0.00	0	No
UTU92713	Uintah Mountains/Deadmans Bench	1922.87	100.00	0.00	139.58	0.00	0	No
UTU92714	Uintah Mountains/Deadmans Bench	1523.24	100.00	0.00	90.02	0.00	0	No
UTU93914	Uintah Mountains/Deadmans Bench	279.02	71.60	0.00	0.00	0.00	0	No
UTU93915	Uintah Mountains/Deadmans Bench	1437.79	100.00	0.00	0.00	0.00	0	No
UTU93916	Uintah Mountains/Deadmans Bench	1290.23	100.00	0.00	0.00	0.00	0	No
UTU93917	Uintah Mountains/Deadmans Bench	1765.74	100.00	0.00	0.00	0.00	0	No
UTU93918	Uintah Mountains/Deadmans Bench	1496.83	100.00	0.00	84.86	201.49	0	No

Lease #	(Field Office/GRSG Population)	Lease Size (Acres)	% w/in GHMA	% w/in PHMA	Occupied leks w/in 3.1 mi (#)	Habitat treatments since ARMPA (acres)	Wildfire since ARMPA (acres)	Adaptive Management Trigger Met (Yes/No)
UTU93919	Uintah Mountains/Deadmans Bench	1600.74	100.00	0.00	0.00	0.00	0	No
UTU93920	Uintah Mountains/Deadmans Bench	1279.20	70.99	0.00	0.00	0.00	0	No
UTU93921	Uintah Mountains/Deadmans Bench	163.54	17.85	0.00	0.00	0.00	0	No
UTU93922	Uintah Mountains/Deadmans Bench	1868.75	12.93	0.00	0.00	0.00	0	No
UTU93925	Uintah Mountains/Deadmans Bench	2423.88	99.91	0.00	129.20	0.00	0	No
UTU93926	Uintah Mountains/Deadmans Bench	1837.47	100.00	0.00	0.00	0.00	0	No
UTU93927	Uintah Mountains/Deadmans Bench	2234.62	100.00	0.00	79.69	0.00	0	No
UTU93928	Uintah Mountains/Deadmans Bench	2263.62	99.76	0.00	0.00	0.00	0	No
UTU93929	Uintah Mountains/Deadmans Bench	2081.44	100.00	0.00	0.00	0.00	0	No
UTU93930	Uintah Mountains/Deadmans Bench	1434.13	100.00	0.00	59.15	0.00	0	No
UTU93931	Uintah Mountains/Deadmans Bench	1121.37	99.47	0.00	0.00	0.00	0	No
UTU93933	Uintah Mountains/Deadmans Bench	1800.20	100.00	0.00	0.00	0.00	0	No
UTU93934	Uintah Mountains/Deadmans Bench	1160.18	100.00	0.00	395.39	840.53	0	No
UTU93935	Uintah Mountains/Deadmans Bench	776.99	0.21	0.00	0.00	0.00	0	No
UTU93936	Uintah Mountains/Deadmans Bench	1931.69	100.00	0.00	0.00	0.00	0	No
UTU93937	Uintah Mountains/Deadmans Bench	1358.81	88.54	0.00	0.00	0.00	0	No
UTU93938	Uintah Mountains/Deadmans Bench	1663.57	24.60	0.00	0.00	0.00	0	No
UTU93939	Uintah Mountains/Deadmans Bench	2151.51	2.41	0.00	0.00	0.00	0	No

Lease #	(Field Office/GRSG Population)	Lease Size (Acres)	% w/in GHMA	% w/in PHMA	Occupied leks w/in 3.1 mi (#)	Habitat treatments since ARMPA (acres)	Wildfire since ARMPA (acres)	Adaptive Management Trigger Met (Yes/No)
UTU93962	Uintah Mountains/Deadmans Bench	79.99	100.00	0.00	0.00	0.00	0	No
UTU93963	Uintah Mountains/Deadmans Bench	80.47	100.00	0.00	0.00	0.00	0	No
UTU93968	Uintah Mountains/Deadmans Bench	2200.54	100.00	0.00	10.81	0.00	0	No
UTU91953	Uintah Mountains/East Bench	79.81	22.62	0.00	0.00	0.00	0	No
UTU92686	Uintah Mountains/East Bench	637.52	99.98	0.00	0.00	0.00	0	No
UTU93884	Uintah Mountains/East Bench	40.29	100.00	0.00	0.00	0.00	0	No
UTU93888	Uintah Mountains/East Bench	650.58	100.00	0.00	0.00	0.00	0	No
UTU93899	Uintah Mountains/East Bench	1600.31	1.23	0.00	0.00	0.00	0	No
UTU93900	Uintah Mountains/East Bench	1681.73	29.44	0.00	38.49	0.00	0	No
UTU93901	Uintah Mountains/East Bench	1465.51	82.96	0.00	36.41	0.00	0	No
UTU93902	Uintah Mountains/East Bench	1439.68	94.35	0.00	181.77	0.00	0	No
UTU93903	Uintah Mountains/East Bench	1892.91	95.02	0.00	486.88	0.00	0	No
UTU93904	Uintah Mountains/East Bench	1922.56	91.39	0.00	908.83	0.00	0	No
UTU93905	Uintah Mountains/East Bench	2535.35	24.92	0.00	536.52	0.00	0	No
UTU93906	Uintah Mountains/East Bench	2558.79	68.16	0.00	995.62	0.00	0	No
UTU93907	Uintah Mountains/East Bench	2548.54	0.34	0.00	0.00	0.00	0	No
UTU93910	Uintah Mountains/East Bench	856.01	5.30	0.00	12.94	0.00	0	No
UTU93911	Uintah Mountains/Bookcliffs	1916.46	3.38	0.00	92.68	0.00	0	No
UTU93913	Uintah Mountains/Bookcliffs	2235.03	34.20	0.00	957.69	79.39	0	No
UTU93923	Uintah Mountains/Bookcliffs	1833.59	53.04	0.00	136.75	0.00	0	No
UTU93924	Uintah Mountains/Bookcliffs	2559.68	50.33	0.00	199.36	0.00	0	No
UTU93959	Uintah Mountains/Bookcliffs	1436.03	32.70	0.00	370.60	0.00	0	No
UTU93965	Uintah Mountains/Bookcliffs	629.21	35.28	0.00	0.94	0.00	0	No
UTU93966	Uintah Mountains/Bookcliffs	279.22	56.34	0.00	127.93	0.00	0	No
UTU91937	Anthro Mountain/Sand Wash/Big Wash	320.49	24.25	0.00	0.00	0.00	0	No

Lease #	(Field Office/GRSG Population)	Lease Size (Acres)	% w/in GHMA	% w/in PHMA	Occupied leks w/in 3.1 mi (#)	Habitat treatments since ARMPA (acres)	Wildfire since ARMPA (acres)	Adaptive Management Trigger Met (Yes/No)
UTU93260	Anthro Mountain/Sand Wash/Big Wash	851.58	56.38	0.00	478.68	0.00	0	No
UTU93261	Anthro Mountain/Sand Wash/Big Wash	359.21	100.00	0.00	0.00	0.00	0	No
UTU93881	Anthro Mountain/Sand Wash/Big Wash	1198.08	0.08	0.00	10.39	0.00	0	No
UTU93882	Anthro Mountain/Sand Wash/Big Wash	1119.23	0.57	0.00	0.00	0.00	0	No
UTU94135	Anthro Mountain/Sand Wash/Big Wash	1920.12	17.18	0.00	0.00	0.00	0	No
UTU93433	Rich	412.90	0.00	100.00	0.00	0.00	0	No
UTU92487	Sheeprocks	2182.03	0.00	13.40	0.00	0.00	0	Yes
UTU92765	Sheeprocks	1309.81	0.00	48.23	0.00	0.00	0	Yes
UTU92807	Sheeprocks	2164.08	0.00	1.18	0.00	0.00	0	Yes
UTU93250	Parker Mountain	1842.90	0.00	35.05	26.98	0.00	1	Yes

Fluid Mineral Components

As noted in the ARMPA, any lease considered for issuance in PHMA would be subject to an NSO stipulation, thus, no surface disturbance would occur on those leases. In addition to the NSO stipulation, for all leases in PHMA and GHMA, seasonal stipulations would also apply, which limit certain activities within various proximity to leks during certain times of the year. Application of other management actions and Required Design Features would help inform whether it is possible to directionally drill from an authorized surface location outside of PHMA or on a valid existing lease.

Evaluation for WEG (2025) Leases:

Eighty-one (81) leases were evaluated for the WEG (2025) analysis. Of those leases, five were located within PHMA, three leases (UTU92487, UTU92765, and UTU92807) in Sheeprock, one lease (UTU93250) in Parker Mountain, and one lease (UTU93433) in Rich. The remaining seventy-six (76) leases were (either entirely or partially) located within GHMA. All leases within PHMA and GHMA were evaluated through the prioritization process and presented to the Authorized Officer. After all resource issues were carefully evaluated, including the biological and fluid mineral components described above, all leases in PHMA and GHMA were brought forward for evaluation in the WEG EA. No (0) leases were recommended to not be affirmed.

A summary of the prioritization for the eighty-one (81) leases in the WEG (2025) analysis that were in GRSG habitat are listed below.

Table 108. Overview of the Fluid Minerals Components of Each Lease Considered

Lease	(Field Office/GRSG Population)	Lease Size (Acres)	% w/in 3.1 mi		Distance to Closest O&G Location	Well Density w/in 1 Mile	Within Existing O&G Agreement	O&G Potential (Per Square Mile)
			Leased %	HBP %				
UTU93979	Lucerne	719.28	0	0	Active service well 12.5 miles to the W	0	No	Oil: 76.02 Mbbl, Gas: 1472.08 MMcf
UTU93980	Lucerne	2062.09	0	0	Active service well 14.6 miles to the W	0	No	Oil: 51.62 Mbbl, Gas: 871.51 MMcf
UTU93981	Lucerne	1268.72	0	0	Active service well 13.7 miles to the W	0	No	Oil: 48.07 Mbbl, Gas: 769.96 MMcf
UTU93982	Lucerne	1142.96	0	0	Active service well 17.5 miles to the W	0	No	Oil: 48.14 Mbbl, Gas: 773.63 MMcf
UTU92679	Uintah Mountains/Halfway Hollow/McCoy Flats	930.14	65.34	65.34	Producing well 0.0 miles to the E	1.64	No	Oil: 79.8 Mbbl, Gas: 3106.03 MMcf
UTU92680	Uintah Mountains/Halfway Hollow/McCoy Flats	1455.50	77.61	77.61	Producing well 0.1 miles to the S	0.81	No	Oil: 13.98 Mbbl, Gas: 2821.63 MMcf
UTU92682	Uintah Mountains/Halfway Hollow/McCoy Flats	1780.25	20.36	20.36	Producing well 2.2 miles to the SW	0	No	Oil: 22.79 Mbbl, Gas: 2907.24 MMcf
UTU92683	Uintah Mountains/Halfway Hollow/McCoy Flats	1150.37	40.21	40.21	Producing well 0.4 miles to the SW	0.47	No	Oil: 24.16 Mbbl, Gas: 2917.8 MMcf
UTU92684	Uintah Mountains/Halfway Hollow/McCoy Flats	1750.39	16.68	16.68	Producing well 2.7 miles to the S	0	No	Oil: 16.79 Mbbl, Gas: 2860.85 MMcf
UTU93946	Uintah Mountains/Halfway Hollow/McCoy Flats	254.14	23.87	23.87	Producing well 0.1 miles to the E	0.78	No	Oil: 96.46 Mbbl, Gas: 3234.79 MMcf
UTU93947	Uintah Mountains/Halfway Hollow/McCoy Flats	1685.26	38.72	38.72	Producing well 0.1 miles to the SW	0.37	No	Oil: 82.01 Mbbl, Gas: 3123.12 MMcf
UTU93948	Uintah Mountains/Halfway Hollow/McCoy Flats	158.11	34.26	34.26	Producing well 0.0 miles to the W	2.1	No	Oil: 96.46 Mbbl, Gas: 3234.79 MMcf
UTU92701	Uintah Mountains/Deadmans Bench	319.88	63.5	63.5	Producing well 0.4 miles to the E	0.6	No	Oil: 54.32 Mbbl, Gas: 879.45 MMcf
UTU92702	Uintah Mountains/Deadmans Bench	718.55	44.28	44.28	Producing well 0.4 miles to the N	0.31	No	Oil: 51.87 Mbbl, Gas: 860.47 MMcf
UTU92703	Uintah Mountains/Deadmans Bench	358.74	57.85	57.85	Producing well 0.2 miles to the SE	0.4	No	Oil: 22.53 Mbbl, Gas: 993.55 MMcf

Lease	(Field Office/GRSG Population)	Lease Size (Acres)	% w/in 3.1 mi		Distance to Closest O&G Location	Well Density w/in 1 Mile	Within Existing O&G Agreement	O&G Potential (Per Square Mile)
			Leased %	HBP %				
UTU92704	Uintah Mountains/Deadmans Bench	553.01	36.11	36.11	Producing well 0.2 miles to the NW	0.89	No	Oil: 55.44 Mbbl, Gas: 1626.92 MMcf
UTU92708	Uintah Mountains/Deadmans Bench	2399.11	13.62	13.62	Producing well 3.8 miles to the SW	0	No	Oil: 1.73 Mbbl, Gas: 49.82 MMcf
UTU92709	Uintah Mountains/Deadmans Bench	1577.77	24	24	Producing well 2.9 miles to the W	0	No	Oil: 2.45 Mbbl, Gas: 43.08 MMcf
UTU92710	Uintah Mountains/Deadmans Bench	1924.72	5.86	5.86	Producing well 2.4 miles to the S	0	No	Oil: 2.35 Mbbl, Gas: 65.6 MMcf
UTU92711	Uintah Mountains/Deadmans Bench	2561.53	30.61	30.61	Producing well 1.2 miles to the S	0	No	Oil: 23.38 Mbbl, Gas: 494.29 MMcf
UTU92712	Uintah Mountains/Deadmans Bench	2375.07	5.98	5.98	Producing well 1.8 miles to the SW	0	No	Oil: 3.21 Mbbl, Gas: 178.6 MMcf
UTU92713	Uintah Mountains/Deadmans Bench	1922.87	12.02	12.02	Producing well 0.5 miles to the SW	0.29	No	Oil: 21.49 Mbbl, Gas: 546.23 MMcf
UTU92714	Uintah Mountains/Deadmans Bench	1523.24	28.97	28.97	Producing well 0.9 miles to the W	0.08	No	Oil: 36.44 Mbbl, Gas: 730.83 MMcf
UTU93914	Uintah Mountains/Deadmans Bench	279.02	54.56	54.56	Producing well 0.2 miles to the NE	0.39	No	Oil: 54.32 Mbbl, Gas: 879.45 MMcf
UTU93915	Uintah Mountains/Deadmans Bench	1437.79	41.02	41.02	Producing well 0.4 miles to the N	0.07	No	Oil: 44.8 Mbbl, Gas: 871.82 MMcf
UTU93916	Uintah Mountains/Deadmans Bench	1290.23	16.69	16.69	Active service well 0.4 miles to the W	0.16	No	Oil: 34.31 Mbbl, Gas: 798.97 MMcf
UTU93917	Uintah Mountains/Deadmans Bench	1765.74	36.55	36.55	Active service well 0.0 miles to the E	0.29	No	Oil: 55.44 Mbbl, Gas: 1625.51 MMcf
UTU93918	Uintah Mountains/Deadmans Bench	1496.83	15.92	15.92	Active service well 0.9 miles to the NW	0.08	No	Oil: 47.4 Mbbl, Gas: 1029.74 MMcf
UTU93919	Uintah Mountains/Deadmans Bench	1600.74	40.34	40.34	Active service well 1.2 miles to the N	0	No	Oil: 55.44 Mbbl, Gas: 1626.92 MMcf
UTU93920	Uintah Mountains/Deadmans Bench	1279.20	35.75	35.75	Active service well 2.3 miles to the NW	0	No	Oil: 54.87 Mbbl, Gas: 1254.94 MMcf
UTU93921	Uintah Mountains/Deadmans Bench	163.54	51.41	51.41	Producing well 2.7 miles to the SW	0	No	Oil: 2.64 Mbbl, Gas: 523.53 MMcf
UTU93922	Uintah Mountains/Deadmans Bench	1868.75	76.21	76.21	Producing well 0.1 miles to the N	0.66	No	Oil: 55.27 Mbbl, Gas:

Lease	(Field Office/GRSG Population)	Lease Size (Acres)	% w/in 3.1 mi		Distance to Closest O&G Location	Well Density w/in 1 Mile	Within Existing O&G Agreement	O&G Potential (Per Square Mile)
			Leased %	HBP %				
								1636.78 MMcf
UTU93925	Uintah Mountains/Deadmans Bench	2423.88	13.91	13.91	Producing well 0.6 miles to the W	0.11	No	Oil: 17.29 Mbbbl, Gas: 568.12 MMcf
UTU93926	Uintah Mountains/Deadmans Bench	1837.47	36.62	36.62	Producing well 0.1 miles to the W	0.47	No	Oil: 54.31 Mbbbl, Gas: 878.21 MMcf
UTU93927	Uintah Mountains/Deadmans Bench	2234.62	39.67	39.67	Producing well 0.4 miles to the N	0.39	No	Oil: 47.24 Mbbbl, Gas: 824.72 MMcf
UTU93928	Uintah Mountains/Deadmans Bench	2263.62	9.96	9.96	Producing well 2.2 miles to the N	0	No	Oil: 32.38 Mbbbl, Gas: 717.16 MMcf
UTU93929	Uintah Mountains/Deadmans Bench	2081.44	5.16	5.16	Producing well 3.2 miles to the NW	0	No	Oil: 54.31 Mbbbl, Gas: 922.79 MMcf
UTU93930	Uintah Mountains/Deadmans Bench	1434.13	27.57	27.57	Producing well 1.0 miles to the W	0.08	No	Oil: 53.66 Mbbbl, Gas: 894.9 MMcf
UTU93931	Uintah Mountains/Deadmans Bench	1121.37	6.34	6.34	Producing well 3.5 miles to the SW	0	No	Oil: 19.3 Mbbbl, Gas: 652.23 MMcf
UTU93933	Uintah Mountains/Deadmans Bench	1800.20	5.59	5.59	Producing well 2.0 miles to the S	0	No	Oil: 33.7 Mbbbl, Gas: 763.51 MMcf
UTU93934	Uintah Mountains/Deadmans Bench	1160.18	2.76	2.76	Producing well 0.6 miles to the SE	0.09	No	Oil: 2.64 Mbbbl, Gas: 523.53 MMcf
UTU93935	Uintah Mountains/Deadmans Bench	776.99	18.33	18.33	Producing well 1.2 miles to the N	0	No	Oil: 2.64 Mbbbl, Gas: 523.53 MMcf
UTU93936	Uintah Mountains/Deadmans Bench	1931.69	42.03	42.03	Producing well 2.7 miles to the E	0	No	Oil: 2.64 Mbbbl, Gas: 523.53 MMcf
UTU93937	Uintah Mountains/Deadmans Bench	1358.81	38.62	38.62	Producing well 1.2 miles to the E	0	No	Oil: 11.12 Mbbbl, Gas: 589.03 MMcf
UTU93938	Uintah Mountains/Deadmans Bench	1663.57	51	51	Producing well 0.5 miles to the W	0.24	No	Oil: 40.27 Mbbbl, Gas: 814.3 MMcf
UTU93939	Uintah Mountains/Deadmans Bench	2151.51	43	43	Producing well 0.6 miles to the N	0.07	No	Oil: 52.31 Mbbbl, Gas: 907.33 MMcf
UTU93962	Uintah Mountains/Deadmans Bench	79.99	56.68	56.68	Producing well 0.2 miles to the NW	0.84	No	Oil: 54.32 Mbbbl, Gas: 879.45 MMcf

Lease	(Field Office/GRSG Population)	Lease Size (Acres)	% w/in 3.1 mi		Distance to Closest O&G Location	Well Density w/in 1 Mile	Within Existing O&G Agreement	O&G Potential (Per Square Mile)
			Leased %	HBP %				
UTU93963	Uintah Mountains/Deadmans Bench	80.47	11.21	11.21	Active service well 0.9 miles to the W	0.21	No	Oil: 54.9 Mbbl, Gas: 1261.19 MMcf
UTU93968	Uintah Mountains/Deadmans Bench	2200.54	21.08	21.08	Producing well 2.1 miles to the NW	0	No	Oil: 54.31 Mbbl, Gas: 906.46 MMcf
UTU91953	Uintah Mountains/East Bench	79.81	2.54	2.54	Producing well 2.8 miles to the W	0	No	Oil: 29.63 Mbbl, Gas: 1427.42 MMcf
UTU92686	Uintah Mountains/East Bench	637.52	0	0	Producing well 5.0 miles to the NW	0	No	Oil: 51.86 Mbbl, Gas: 1618.57 MMcf
UTU93884	Uintah Mountains/East Bench	40.29	71.53	71.53	Producing well 0.2 miles to the S	5.71	No	Oil: 55.44 Mbbl, Gas: 1626.92 MMcf
UTU93888	Uintah Mountains/East Bench	650.58	69.25	69.25	Producing well 0.1 miles to the N	1.34	No	Oil: 55.44 Mbbl, Gas: 1626.92 MMcf
UTU93899	Uintah Mountains/East Bench	1600.31	51.81	51.81	Spudded/drilling well 2.7 miles to the NE	0	No	Oil: 52.92 Mbbl, Gas: 1620.42 MMcf
UTU93900	Uintah Mountains/East Bench	1681.73	22.47	22.47	Producing well 4.9 miles to the NW	0	No	Oil: 47.58 Mbbl, Gas: 1566.17 MMcf
UTU93901	Uintah Mountains/East Bench	1465.51	12.44	12.44	Producing well 5.1 miles to the NW	0	No	Oil: 55.44 Mbbl, Gas: 1626.92 MMcf
UTU93902	Uintah Mountains/East Bench	1439.68	8.77	8.77	Producing well 3.9 miles to the S	0	No	Oil: 22.82 Mbbl, Gas: 1407.72 MMcf
UTU93903	Uintah Mountains/East Bench	1892.91	6.41	6.41	Producing well 5.4 miles to the S	0	No	Oil: 48.03 Mbbl, Gas: 1571.16 MMcf
UTU93904	Uintah Mountains/East Bench	1922.56	12.91	12.91	Producing well 2.9 miles to the S	0	No	Oil: 43.6 Mbbl, Gas: 1578.89 MMcf
UTU93905	Uintah Mountains/East Bench	2535.35	9.08	9.08	Producing well 3.3 miles to the S	0	No	Oil: 3.77 Mbbl, Gas: 1271.04 MMcf
UTU93906	Uintah Mountains/East Bench	2558.79	11.54	11.54	Producing well 0.9 miles to the S	0.12	No	Oil: 51.08 Mbbl, Gas: 1636.63 MMcf

Lease	(Field Office/GRSG Population)	Lease Size (Acres)	% w/in 3.1 mi		Distance to Closest O&G Location	Well Density w/in 1 Mile	Within Existing O&G Agreement	O&G Potential (Per Square Mile)
			Leased %	HBP %				
UTU93907	Uintah Mountains/East Bench	2548.54	9.86	9.86	Producing well 1.2 miles to the SE	0	No	Oil: 33.91 Mbbl, Gas: 1504.0 MMcf
UTU93910	Uintah Mountains/East Bench	856.01	9.93	9.93	Producing well 1.2 miles to the SW	0	No	Oil: 44.88 Mbbl, Gas: 1588.77 MMcf
UTU93911	Uintah Mountains/Bookcliffs	1916.46	2.3	2.3	Producing well 2.8 miles to the SW	0	No	Oil: 54.32 Mbbl, Gas: 922.91 MMcf
UTU93913	Uintah Mountains/Bookcliffs	2235.03	48.87	48.87	Producing well 0.4 miles to the N	0.22	No	Oil: 54.32 Mbbl, Gas: 922.91 MMcf
UTU93923	Uintah Mountains/Bookcliffs	1833.59	32.24	32.24	Producing well 1.2 miles to the W	0	No	Oil: 26.02 Mbbl, Gas: 704.19 MMcf
UTU93924	Uintah Mountains/Bookcliffs	2559.68	27.53	27.53	Producing well 3.1 miles to the W	0	No	Oil: 50.48 Mbbl, Gas: 893.19 MMcf
UTU93959	Uintah Mountains/Bookcliffs	1436.03	41.58	41.58	Producing well 0.3 miles to the S	0.26	No	Oil: 46.42 Mbbl, Gas: 861.86 MMcf
UTU93965	Uintah Mountains/Bookcliffs	629.21	41.47	41.47	Producing well 3.1 miles to the W	0	No	Oil: 54.32 Mbbl, Gas: 922.91 MMcf
UTU93966	Uintah Mountains/Bookcliffs	279.22	35.35	35.35	Producing well 2.5 miles to the SW	0	No	Oil: 54.3 Mbbl, Gas: 922.74 MMcf
UTU91937	Anthro Mountain/Sand Wash/Big Wash	320.49	38.16	38.16	Producing well 1.5 miles to the NW	0	No	Oil: 57.77 Mbbl, Gas: 3177.56 MMcf
UTU93260	Anthro Mountain/Sand Wash/Big Wash	851.58	24.98	24.98	Producing well 1.2 miles to the S	0	No	Oil: 6.09 Mbbl, Gas: 2778.18 MMcf
UTU93261	Anthro Mountain/Sand Wash/Big Wash	359.21	54.5	54.5	Producing well 0.6 miles to the E	0.56	No	Oil: 46.69 Mbbl, Gas: 3091.95 MMcf
UTU93881	Anthro Mountain/Sand Wash/Big Wash	1198.08	11.83	11.83	Producing well 3.6 miles to the N	0	No	Oil: 6.09 Mbbl, Gas: 2778.18 MMcf
UTU93882	Anthro Mountain/Sand Wash/Big Wash	1119.23	45.28	45.28	Producing well 2.6 miles to the E	0	No	Oil: 28.24 Mbbl, Gas: 2949.38 MMcf

Lease	(Field Office/GRSG Population)	Lease Size (Acres)	% w/in 3.1 mi		Distance to Closest O&G Location	Well Density w/in 1 Mile	Within Existing O&G Agreement	O&G Potential (Per Square Mile)
			Leased %	HBP %				
UTU94135	Anthro Mountain/Sand Wash/Big Wash	1920.12	29.12	29.12	Producing well 0.7 miles to the W	0.05	Yes	Oil: 12.89 Mbbl, Gas: 2830.7 MMcf
UTU93433	Rich	412.90	0	0	Producing well 7.7 miles to the SE	0	No	Oil: 6.46 Mbbl, Gas: 37.44 MMcf
UTU92487	Sheepocks	2182.03	0	0	Active service well 34.8 miles to the W	0	No	Oil: 10.85 Mbbl, Gas: 3.33 MMcf
UTU92765	Sheepocks	1309.81	0	0	Active service well 35.4 miles to the W	0	No	Oil: 10.85 Mbbl, Gas: 3.33 MMcf
UTU92807	Sheepocks	2164.08	0	0	Active service well 37.4 miles to the W	0	No	Oil: 10.85 Mbbl, Gas: 3.33 MMcf
UTU93250	Parker Mountain	1842.90	0	0	Producing well 28.0 miles to the NW	0	No	Oil: 4.13 Mbbl, Gas: 7.42 MMcf

Leases Considered Low Priority for Affirming at This Time

After careful consideration of the biological and fluid mineral components for the eighty-one (81) leases in GRSG habitat in the WEG analysis, the BLM identified six (6) leases (UTU92487, UTU92765, UTU92807, UTU93250, UTU93433, and UTU93982) that are low priority for affirming. Five of these leases are within PHMA in the Sheeprock, Parker Mountain, and Rich population areas. One lease is in the Lucerne GHMA within an area of low potential for oil and gas.

Leases Considered Higher Priority for Affirming at This Time

The seventy-five (75) leases within GHMA were determined to have a higher priority for issuance because they are generally where fewer biological component(s) are present, and more than one fluid mineral component is also present. All leases being reviewed in the WEG analysis are leased with the applicable MAs, stipulations, and notices in conformance with the ARMPA. Application of lease notices and stipulations have been confirmed by the Utah State Office Leasing Team.

This prioritization process helped to evaluate all the leases under analysis in the EA based on BLM-Utah's current prioritization process for leasing in GRSG habitat and to inform potential needs for alternatives in the NEPA and identify whether any leases (low priority for leasing and high priority for leasing) should be carried forward and analyzed in the NEPA document, which is being prepared in connection with the decision for the EA. In the Decision Record, the Authorized Officer would make a decision on whether to affirm its previous decisions to offer and issue the leases in consideration of this prioritization analysis and any other appropriate factors.

All leases in GHMA will include the following lease notices as appropriate to protect GRSG:

Lease Notices:

UT-LN-131 - Greater Sage-Grouse – Net Conservation Gain
UT-LN-132 - Greater Sage-Grouse – Required Design Features
UT-LN-133 - Greater Sage-Grouse – Buffer

All leases in PHMA will include the following stipulations and lease notices as appropriate to protect GRSG:

Stipulations:

UT-S-347: NSO – Greater Sage-Grouse Priority Habitat Management Areas
UT-S-348: CSU/NSO – Greater Sage-Grouse Disturbance Cap
UT-S-349: CSU/NSO – Greater Sage-Grouse Density Limitation
UT-S-350: CSU/TL – Greater Sage-Grouse Breeding Season Noise Limitations
UT-S-352: CSU – Greater Sage-Grouse Tall Structures
UT-S-353: TL – Greater Sage-Grouse Breeding, Nesting and Early Brood Rearing
UT-S-354: TL – Greater Sage-Grouse Brood-Rearing
UT-S-355: TL – Greater Sage-Grouse Winter Habitat
UT-S-356: CSU – Greater Sage-Grouse Indirect Impacts from Noise
UT-S-357: CSU – Greater Sage-Grouse Indirect Impacts from Tall Structures

Lease Notices:

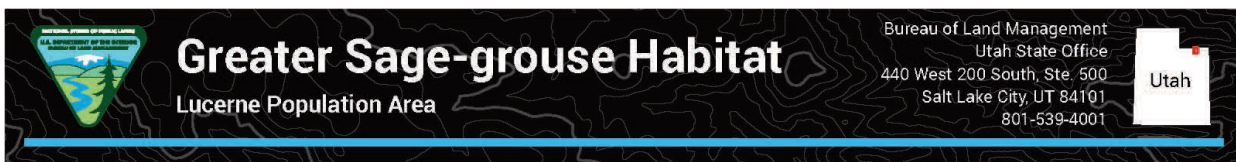
UT-LN-131 - Greater Sage-Grouse – Net Conservation Gain
UT-LN-132 - Greater Sage-Grouse – Required Design Features
UT-LN-133 - Greater Sage-Grouse – Buffer

Since the leases that are considered both a low and high priority have the appropriate stipulations and notices attached to them from the 2015 UT GRSG ARMPA, there would be no leases recommended to not be affirmed as a result of GRSG; however, the NEPA analysis would provide further analysis for the decision-maker to evaluate whether to affirm its previous decisions to offer and issue the leases.

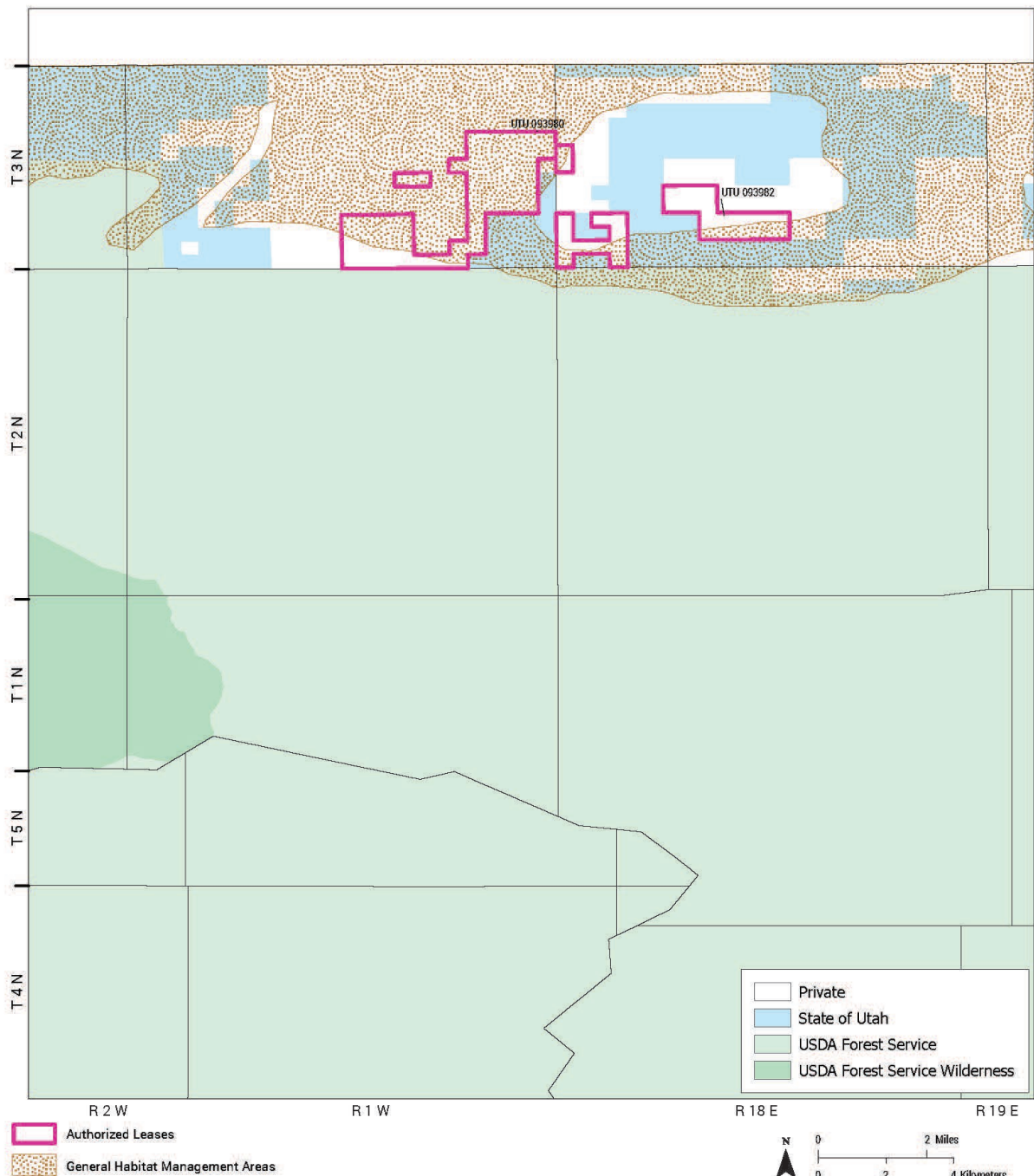
Leases Where Adaptive Management Triggers have been Tripped

There are four leases where an adaptive management trigger has been tripped. There are three leases in the Sheeprock PHMA (UTU92487, UTU92765, and UTU92807) where a hard population trigger was tripped in 2016 and 1 lease in the Parker Mountain PHMA (UTU93250) where a hard population trigger was tripped in 2021. A Causal Factor Analysis was completed for the Sheeprock population in 2021 identifying major causal factors as isolation-small size, infrastructure, fire/alterd fire regimes, recreation, altered water distribution, and vegetation-conifers. The FO has been implementing various implementation actions to address the threats that were identified by the Interdisciplinary Team that may be contributing to the population decline. Since the population trigger was tripped in the Sheeprock population and because of the short and long-term implementation actions in the population area, the population has been steady to increasing in recent years. The Parker Mountain PHMA hit a hard trigger in 2021, and that Causal Factor Analysis is on-going; however, the year after the 2021 trigger, the population in 2022 had increased based on lek counts. The Interdisciplinary Team for the Parker Mountain Causal Factor Analysis is reviewing drought as a primary contributing factor to the 2021 trigger.

The Sheeprock and Parker Mountain areas under this prioritization process were identified as low priority for leasing.



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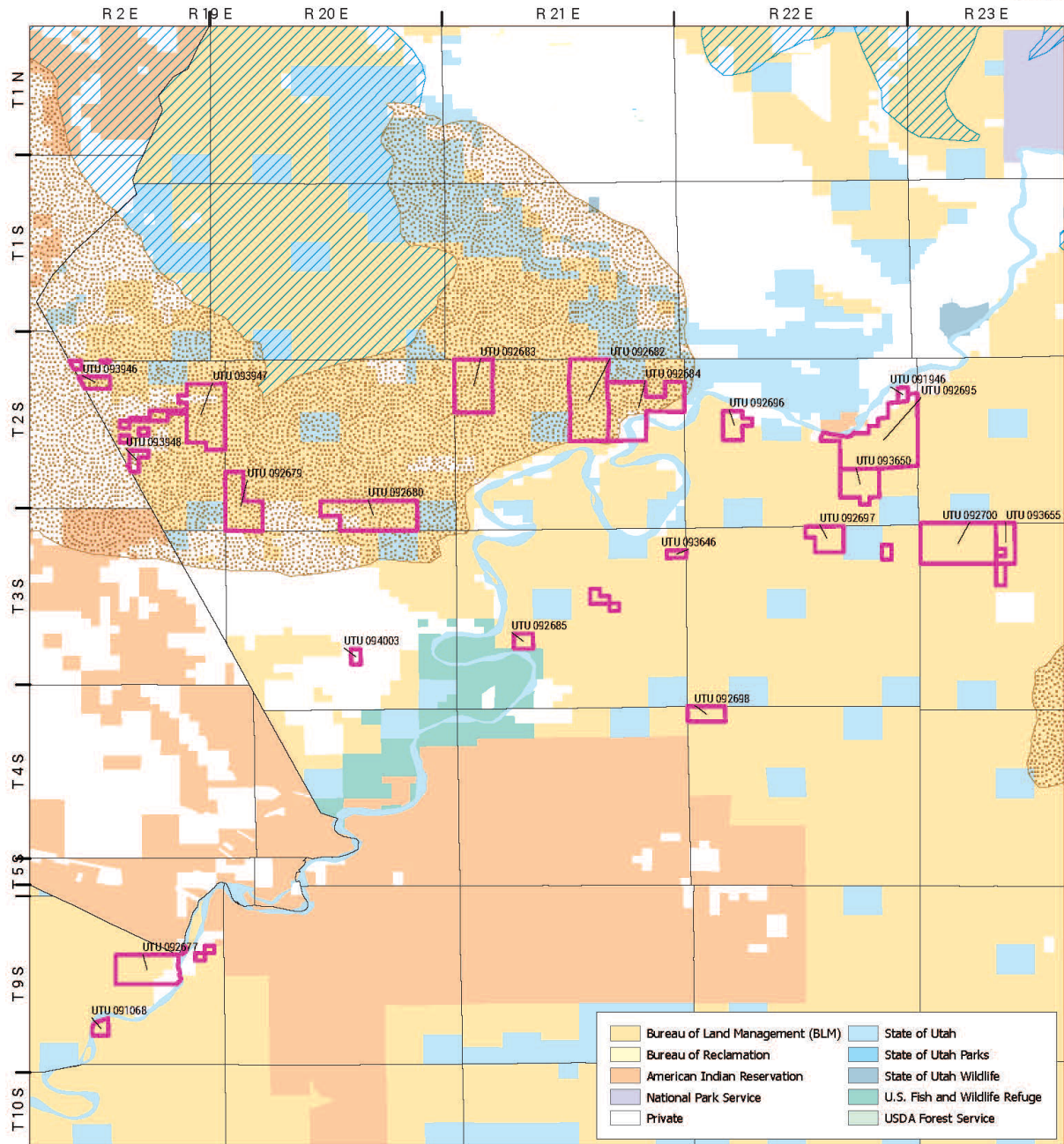
Greater Sage-grouse Habitat

Uintah Mountains Population Area - Halfway Hollow/McCoy Flats

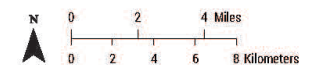
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- Authorized Leases
- Priority Habitat Management Areas
- General Habitat Management Areas



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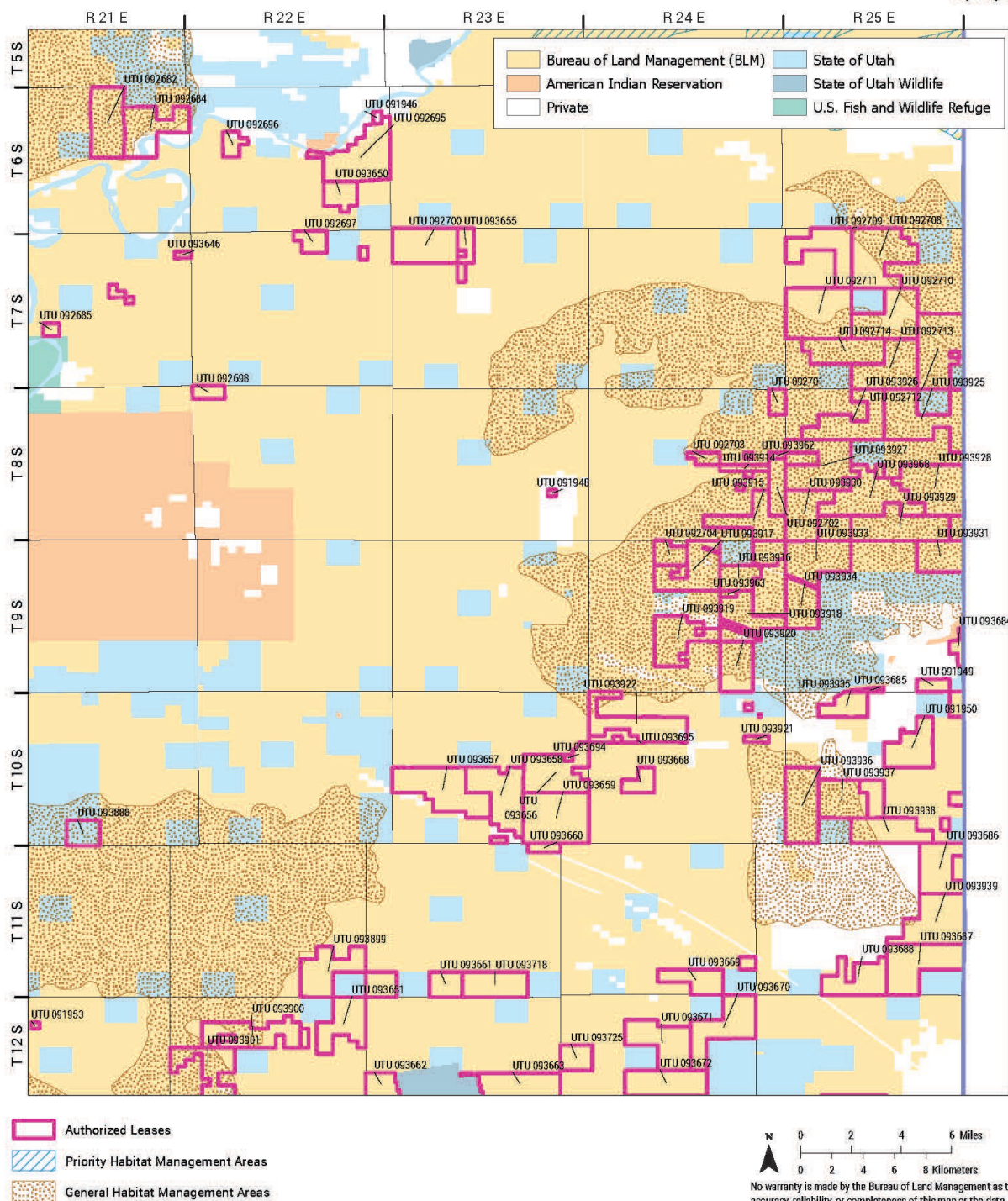
Greater Sage-grouse Habitat

Uintah Mountains Population Area - Deadman's Bench

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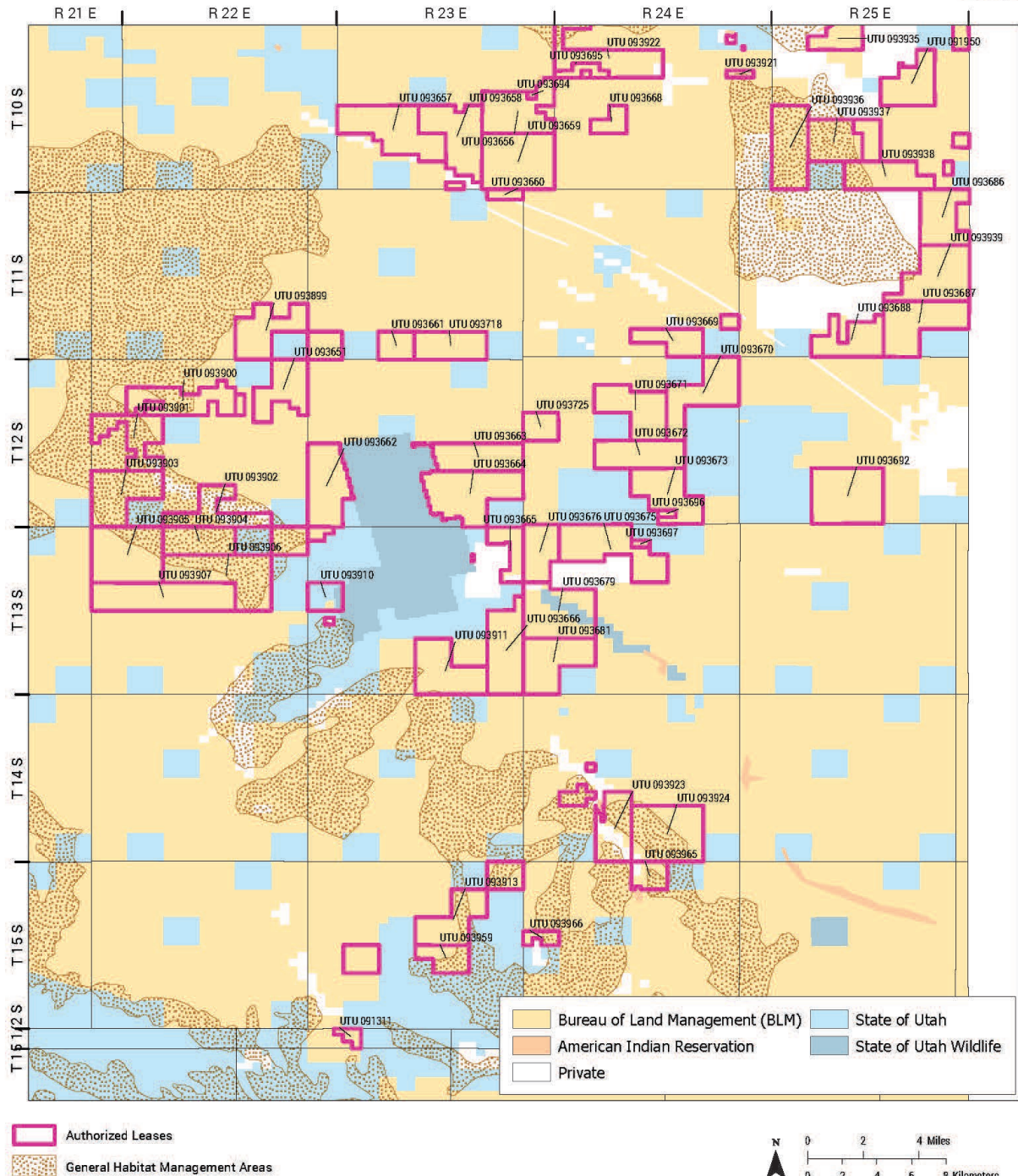
Greater Sage-grouse Habitat

Uintah Mountains Population Area - East Bench/Book Cliffs

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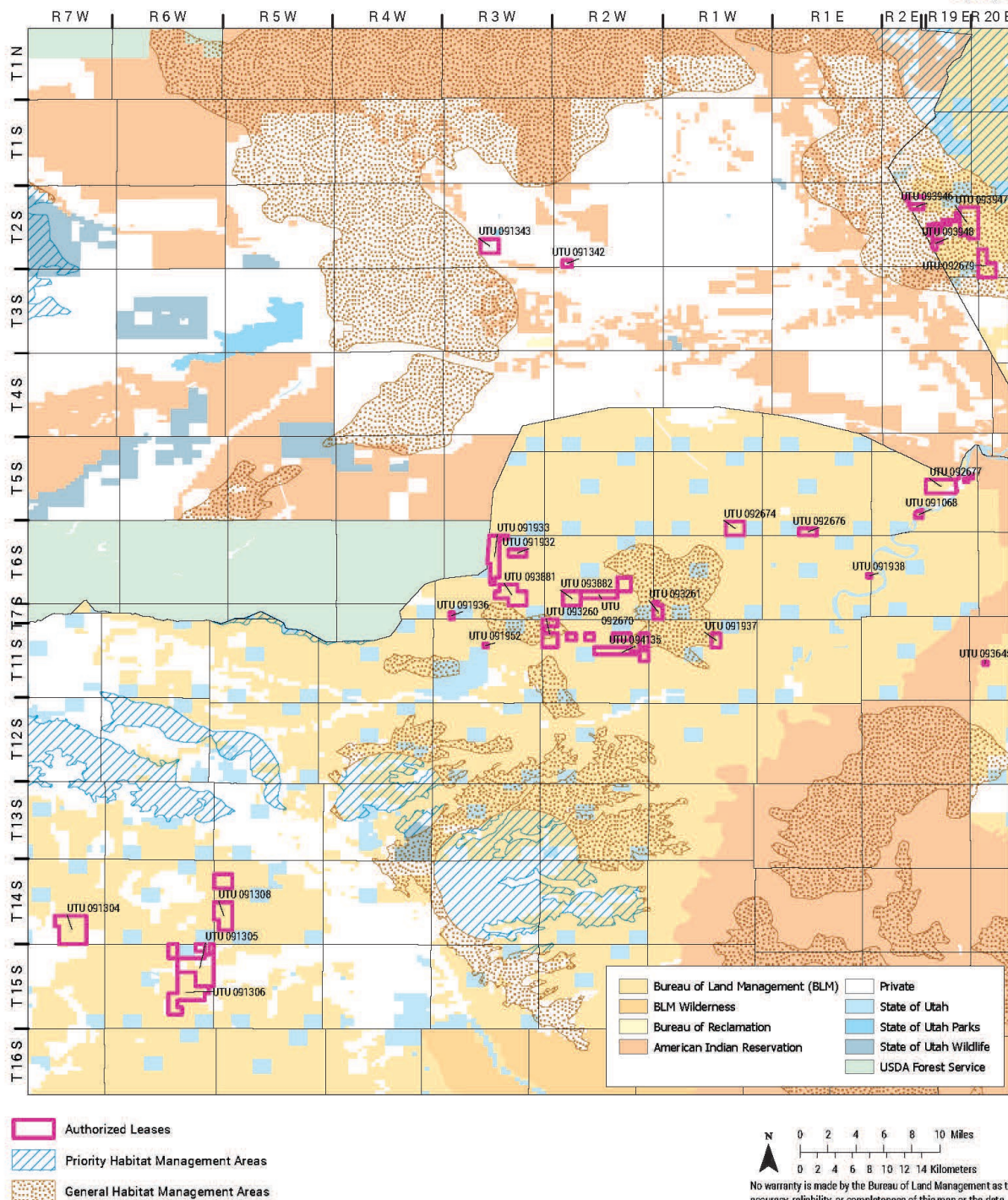
Greater Sage-grouse Habitat

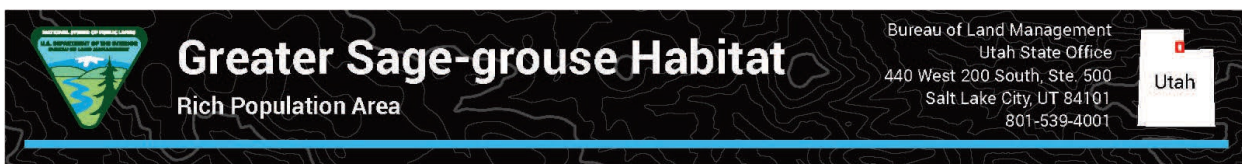
Anthro Mountains Population Area - Sand Wash/Big Wash

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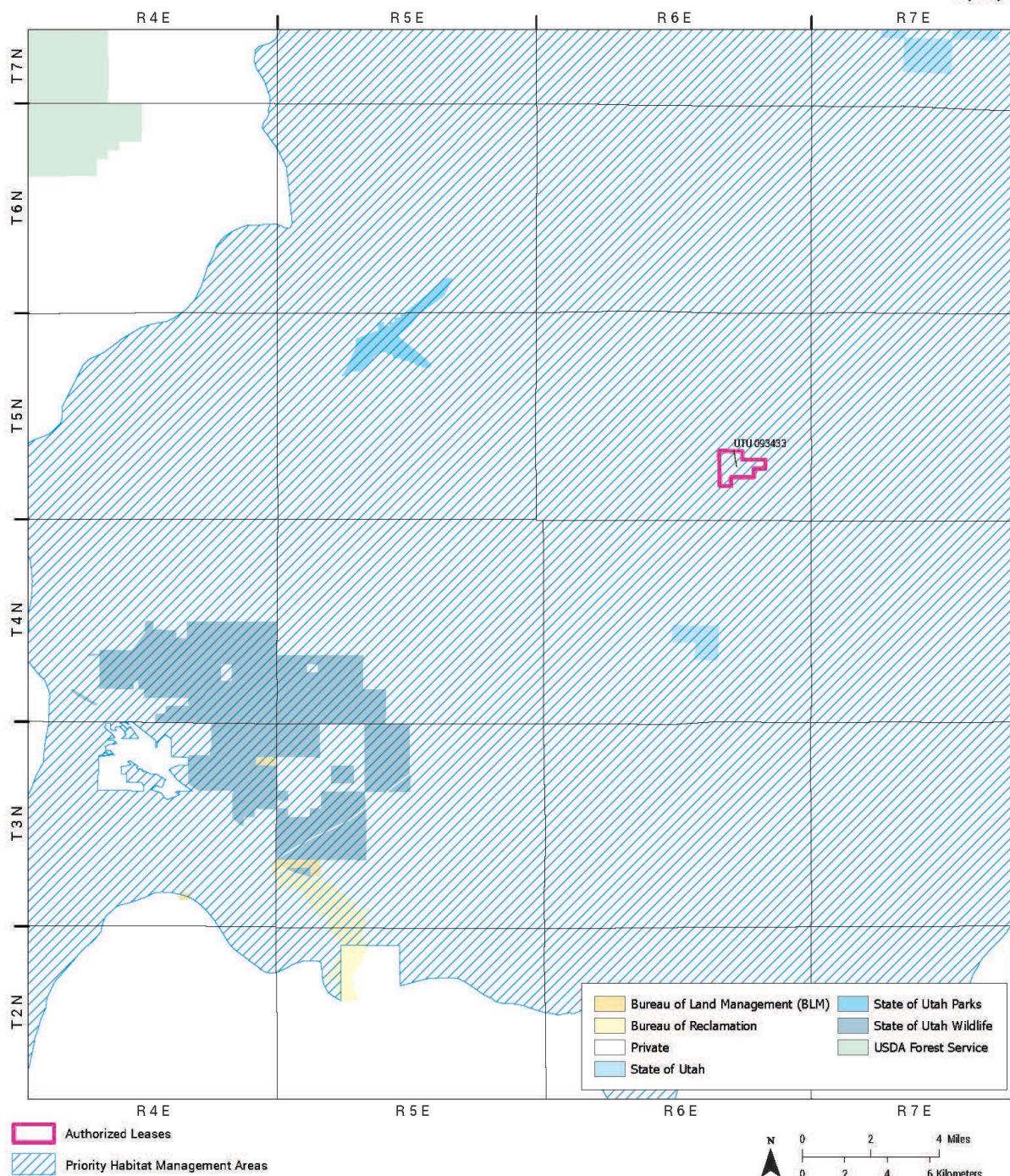


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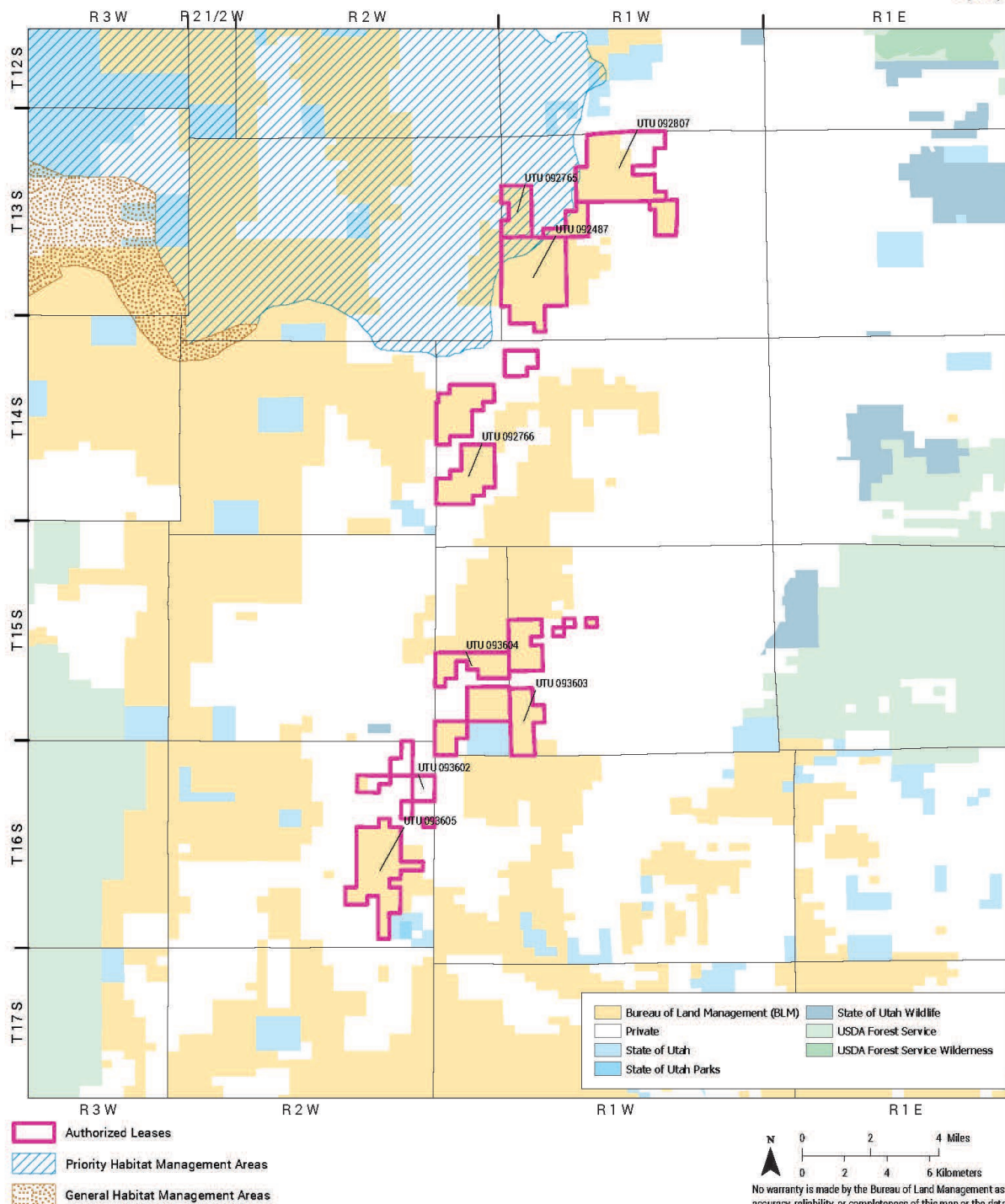
Greater Sage-grouse Habitat

Sheeprock Population Area

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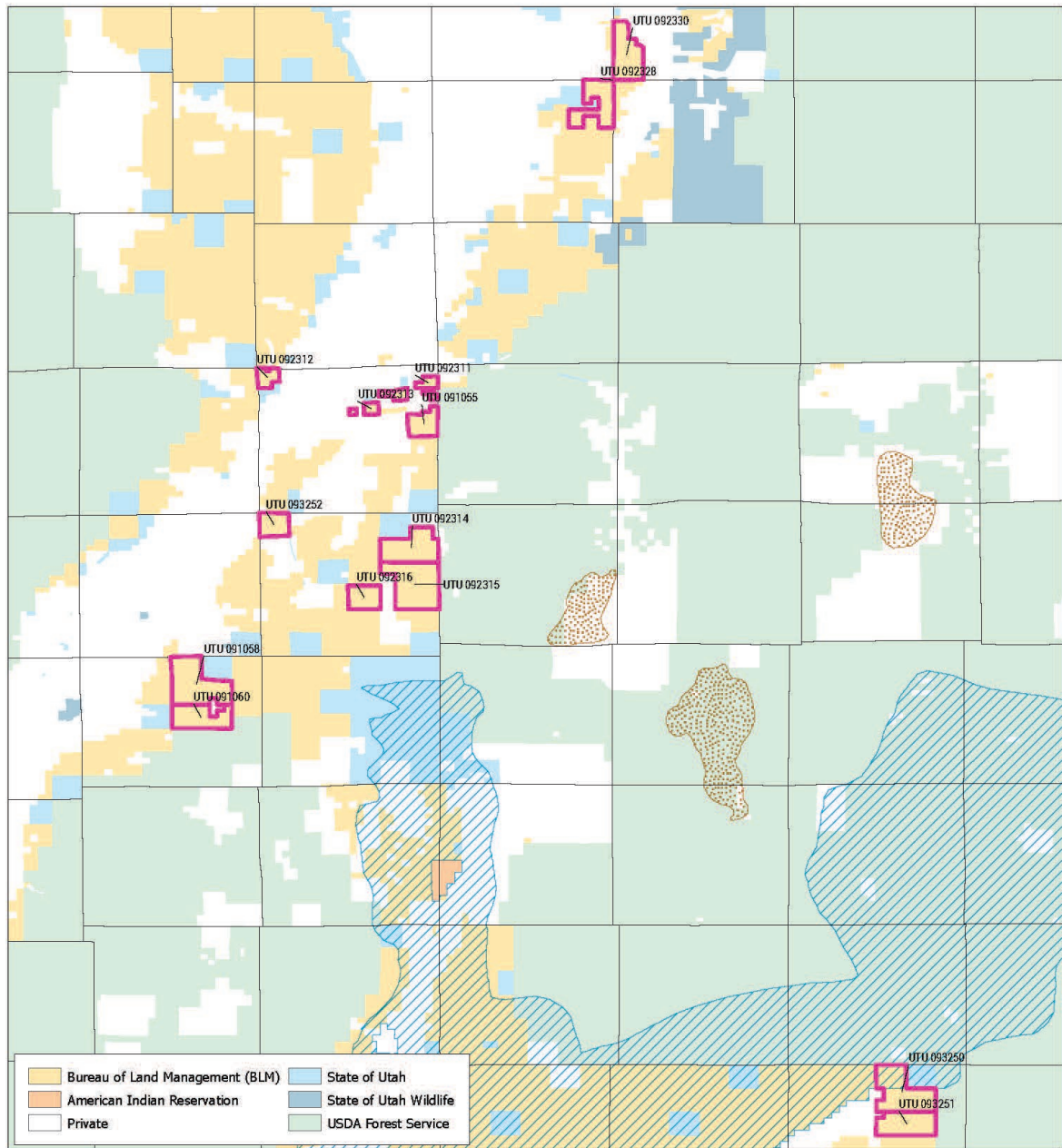
Greater Sage-grouse Habitat

Parker Mountain Population Area

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- Authorized Leases
- Priority Habitat Management Areas
- General Habitat Management Areas

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 0 2 4 6 Miles
 0 2 4 6 8 10 Kilometers

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