

Stipulation Number	UTAH STIPULATIONS
UTSO-S-01	<p style="text-align: center;">AIR QUALITY</p> <p>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 gms of NO_x per horsepower-hour.</p> <p>Exception: This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.</p> <p>Modification: None</p> <p>Waiver: None</p> <p style="text-align: center;">AND</p> <p>All new and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO_x per horsepower-hour.</p> <p>Exception: None.</p> <p>Modification: None</p> <p>Waiver: None</p>
UTSO-S-23	<p style="text-align: center;">NO SURFACE OCCUPANCY – NINE MILE AND ROCK ART ACEC</p> <p>NSO for cultural values within Nine mile and areas containing rock art ACEC to retain the cultural character and context of the area.</p> <p>Exception: The AO may grant an oil and gas exception if it is determined that there is no other economically and technically feasible access is available to reach and drain the fluid mineral resources of the area. First, a block cultural survey must be completed and a treatment plan developed and submitted to BLM and the State Historic Preservation Office (SHPO) for their approval. The plan must contain measures to mitigate surface disturbance and reduce visual intrusion.</p> <p>Modification: None</p> <p>Waiver: None</p>
UTSO-S-24	<p style="text-align: center;">NO SURFACE OCCUPANCY – OLD SPANISH NATIONAL HISTORIC TRAIL</p> <p>NSO within Trail Springs/Lost Springs Wash segment of the Old Spanish National Historic Trail to retain the historic character of the trail.</p> <p>Exception: The AO may grant an exception if an environmental analysis demonstrates that the action would not impair the historic character of the trail.</p> <p>Modification: None</p> <p>Waiver: None</p>
UTSO-S-29	<p style="text-align: center;">NO SURFACE OCCUPANCY – FRAGILE SOILS/SLOPES GREATER THAN 40%</p> <p>NSO on slopes greater than 40 percent.</p> <p>Exception: If after an environment analysis the AO 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 would be submitted by the operator and approved by BLM prior to construction and maintenance and include: An erosion control strategy, GIS modeling, and proper survey and design completed by a certified engineer.</p> <p>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 disturbance activities could occur on slopes greater than 40% while adequately protecting the area from accelerated erosion.</p> <p>Waiver: None</p>
UTSO-S-30	<p style="text-align: center;">NO SURFACE OCCUPANCY – FRAGILE SOILS/SLOPES GREATER THAN 40%</p> <p>NSO on slopes greater than 40 percent.</p> <p>Exception: If after an environment analysis the AO 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 shall have to include:</p> <ul style="list-style-type: none"> • An erosion control strategy • GIS modeling • Proper survey and design completed by a certified engineer. <p>Modification: None</p> <p>Waiver: None</p>

Stipulation Number	UTAH STIPULATIONS
UTSO-S-54	<p align="center">CONDITIONAL SURFACE USE – NATURAL SPRINGS</p> <p>No surface disturbance or occupancy would be allowed 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.</p> <p>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.</p> <p>Modification: None</p> <p>Waiver: None</p>
UTSO-S-55	<p align="center">CONDITIONAL SURFACE USE – FLOODPLAINS, RIPARIAN AREAS, SPRINGS AND PUBLIC WATER RESOURCES</p> <p>No new surface disturbance (excluding fence lines) would be allowed in areas equal to the 100-year floodplain or within 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.</p> <p>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.</p> <p>Modification: None</p> <p>Waiver: None</p>
UTSO-S-60	<p align="center">CONDITIONAL SURFACE USE - VISUAL RESOURCES - VRM II</p> <p>Within VRM II areas, surface disturbing activities would comply with BLM Manual Handbook 8431-1 to retain the existing character of the landscape.</p> <p>Exception: Recognized utility corridors are exempt. Temporary exceedance may be allowed during initial development phases.</p> <p>Modification: None</p> <p>Waiver: None</p>
UTSO-S-62	<p align="center">CONDITIONAL SURFACE USE - FRAGILE SOILS/SLOPES</p> <p>The surface operating standards for oil and gas exploration and development (Gold Book) would be used as a guide for surface-disturbing proposals on steep slopes/hillsides. If surface-disturbing activities cannot be avoided on slopes from 21-40% a plan would be required. The plan would be approved by BLM prior to construction and maintenance and include: An erosion control strategy, GIS modeling, and proper survey and design by a certified engineer.</p> <p>Exception: None</p> <p>Modification: None</p> <p>Waiver: None</p>
UTSO-S-63	<p align="center">CONDITIONAL SURFACE USE - FRAGILE SOILS/SLOPES</p> <p>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 designed by a certified engineer and approved by the BLM prior to project implementation, construction, or maintenance.</p> <p>Exception: If after an environment analysis the AO 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 must include:</p> <ul style="list-style-type: none"> • An erosion control strategy • GIS modeling • Proper survey and design by a certified engineer. <p>Modification: Modifications also may be granted if a more detailed analysis, 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.</p> <p>Waiver: None</p>

Stipulation Number	UTAH STIPULATIONS
UTSO-S-71	<p align="center">CONDITIONAL SURFACE USE - WHITE-TAILED PRAIRIE DOG</p> <p>Do not allow 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 of the colony.</p> <p>Exception: An exception may be granted by the AO 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 AO will allow for loss of prairie dog colonies and/or habitat to satisfy terms and conditions of the lease.</p> <p>Modification: The AO may modify the boundaries of the stipulation area if portions of the area does not include prairie dog habitat or <i>active</i> colonies are found outside current defined area, as determined by BLM.</p> <p>Waiver: May be granted if in the leasehold if is determined that habitat no longer exists or has been destroyed.</p>
UTSO-S-76	<p align="center">CONDITIONAL SURFACE USE – FOSSIL RESOURCES</p> <p>An assessment of fossil resources would be required on a case-by-case basis, mitigating as necessary before and during surface disturbance.</p> <p>Exception: The AO may grant an exception if the area has previously been inventoried and an assessment completed.</p> <p>Modification: None</p> <p>Waiver: None</p>
UTSO-S-78	<p align="center">CONDITIONAL SURFACE USE – SPECIAL STATUS</p> <p>Follow guidelines and implement management recommendations presented in species recovery or conservation plans or alternative management strategies developed in consultation with USFWS. Use emergency actions where use threatens known communities of special status plant or animal species Prohibit surface disturbances that may affect listed species or critical habitat of listed or candidate plants or animals without consultation or conference (ESA, Section 7) between the BLM and USFWS.</p> <p>Exception: None.</p> <p>Modification: None</p> <p>Waiver: None</p>
UTSO-S-79	<p align="center">CONDITIONAL SURFACE USE – NOXIOUS WEEDS</p> <p>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.</p> <p>Exception: None.</p> <p>Modification: None</p> <p>Waiver: None</p>
UTSO-S-88	<p align="center">TIMING LIMITATION – 30% SLOPES OR GREATER – BOOKCLIFFS</p> <p>Where slopes are greater than 30% in the Bookcliffs, BLM approved surface-disturbing activities would not be allowed from November 1 to April 30. This restriction includes heavy equipment traffic on existing roads associated with drilling operations.</p> <p>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 AO on a case-by-case basis, depending on current soil and weather conditions.</p> <p>Modification: None</p> <p>Waiver: None</p>

Stipulation Number	UTAH STIPULATIONS
UTSO-S-89	<p style="text-align: center;">TIMING LIMITATION – FRAGILE SOILS – MANCOS SHALE</p> <p>No surface-disturbing activities are allowed during the period from December 1 to May 31. This restriction includes heavy equipment traffic on existing roads associated with drilling operations to minimize watershed damage including compaction, rutting, and topsoil loss on saline soils derived from the Mancos Shale.</p> <p>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 AO on a case-by-case basis, depending on current soil and weather conditions.</p> <p>Modification: None Waiver: None</p>
UTSO-S-96	<p style="text-align: center;">TIMING LIMITATION – SAGE GROUSE</p> <p>No surface-disturbing activities within 2 miles of active sage grouse leks from March 1 - June 15.</p> <p>Exception: None Modification: None Waiver: None</p>
UTSO-S-101	<p style="text-align: center;">TIMING LIMITATION – CRUCIAL DEER AND ELK WINTER RANGE</p> <p>No surface-disturbing activities from November 15 to April 15 to minimize stress and disturbance to deer and elk during critical winter months.</p> <p>Exception: This stipulation does not apply to the maintenance and operation of existing and ongoing facilities. An exception may be granted by the AO if the operator submits a plan which demonstrates that impacts from the proposed action can be adequately mitigated or it is determined the habitat is not being utilized during the winter period for any given year.</p> <p>Modification: The AO may modify the boundaries of the stipulation area (1) if a portion of the area is not being used as winter range by deer/elk or (2) if habitat is being utilized outside of stipulation boundaries as winter range and needs to be protected or (3) if the migration patterns have changed causing a difference in the season of use.</p> <p>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.</p>
UTSO-S-111	<p style="text-align: center;">TIMING LIMITATION – BIGHORN SHEEP</p> <p>Desert bighorn sheep and Rocky Mountain bighorn sheep spring/lambing range would be closed seasonally from April 15 to June 15.</p> <p>Exception: Upon review and monitoring, the AO may grant exceptions because of climatic and/or range conditions if certain criteria are met and if activities would not cause undue stress to Desert bighorn sheep and Rocky Mountain bighorn sheep populations or habitats.</p> <p>Modification: Season may be adjusted depending on climatic and range conditions.</p> <p>Waiver: A waiver may be granted if the habitat is determined to be unsuitable for lambing and there is no reasonable likelihood of future use as bighorn lambing grounds.</p>
UTSO-S-115	<p style="text-align: center;">TIMING LIMITATION – RAPTOR NESTING</p> <p>Raptor nesting complexes and known raptor nest sites would be closed seasonally from February 1 to July 15.</p> <p>Exception: The AO may grant an exception if the raptor nest in question is deemed to be inactive by May 31 and if the proposed activity would not result in a permanent structure or facility that would cause the subject nest to become unsuitable for nesting in future years.</p> <p>Modification: Season may be adjusted depending on climatic and range conditions. Distance may be adjusted if natural features provide adequate visual screening.</p> <p>Waiver: This stipulation may be waived if, in cooperation with the UDWR, it is determined that the site has been permanently abandoned or unoccupied for a minimum of 3 years.</p>

Stipulation Number	UTAH STIPULATIONS
UTSO-S-116	<p style="text-align: center;">TIMING LIMITATION – MIGRATORY BIRD NESTING</p> <p>Migratory bird nesting areas would be closed seasonally. Birds designated as BLM Special Status Species would have the highest priority from April 15 to August 1.</p> <p>Exception: Upon review and monitoring, the AO may grant exceptions because of climatic and/or habitat conditions if activities would not cause undue stress to migratory bird populations.</p> <p>Modification: Season may be adjusted depending on climatic and range conditions. Distance may be adjusted if natural features provide adequate visual screening.</p> <p>Waiver: None</p>
UTSO-S-134	<p style="text-align: center;">CONDITIONAL SURFACE USE AND TIMING LIMITATIONS - BURROWING OWL AND FERRUGINOUS HAWK NESTING</p> <p>In habitat for raptor species, no surface disturbances or occupancy would 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.</p> <p>Exception: An exception would be granted if protocol surveys determine that nesting sites, breeding territories, and winter roosting areas are not occupied.</p> <p>Modification: The AO 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.</p> <p>Waiver: May be granted if it is determined the habitat no longer exists or has been destroyed.</p>
UTSO-S-135	<p style="text-align: center;">CONDITIONAL SURFACE USE - KIT FOX</p> <p>In kit fox habitat, allow no surface disturbances within 200 meters of a kit fox den.</p> <p>Exception: An exception will be granted if protocol surveys determine that kit fox dens are not present.</p> <p>Modification: The AO may modify the stipulation area if portions of the area do not contain habitat.</p> <p>Waiver: A waiver may be granted if it is determined that the habitat no longer exists.</p>
UTSO-S-136	<p style="text-align: center;">DRAINAGE</p> <p>All or part of the lands contained in this lease may be subject to drainage by well(s) located adjacent to this lease. The lessee shall be required within 60 days of lease issuance to submit to the AO plans for protecting the lease from drainage. Compensatory royalty will be assessed effective the expiration of this 60-day period, if no plan is submitted. The plan must include either an Application for Permit to Drill (APD), a protective well, or an application to communitize the lease so that it is allocated production from a protective well off the lease. Either of these options may include obtaining a variance to State spacing for the area. In lieu of this plan, the lessee shall be required to demonstrate that a protective well would have little or no chance of encountering oil and gas in quantities sufficient to pay in excess the costs of drilling and operating the well. In absence of either an acceptable plan for protecting the lease from drainage or an acceptable justification why a protective well would not be economical, the lessee shall be obligated to pay compensatory royalty to the Minerals Management Service at a rate to be determined by the AO.</p> <p>Exception: None.</p> <p>Modification: None</p> <p>Waiver: None</p>

Number	UTAH'S LEASE NOTICES
UT-LN-07	<p style="text-align: center;">RAPTOR HABITAT</p> <p>The lessee/operator is given notice that lands in this lease have been identified as containing Raptor Species and Habitat. Seasonal restrictions to the Surface Use Plan of Operations may be required in order to protect the Raptors and/or habitat in accordance with Section 6 of the lease terms, Endangered Species Act, and 43 CFR 3101.1-2.</p>
UT-LN-13	<p style="text-align: center;">BURROWING OWL HABITAT</p> <p>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.</p>
UT-LN-14	<p style="text-align: center;">FERRUGINOUS HAWK HABITAT</p> <p>The lessee/operator is given notice that lands in this lease have been identified as containing Ferruginous Hawk Habitat. Modifications to the Surface Use Plan of Operations may be required in order to protect the Ferruginous Hawk 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.</p>
UT-LN-15	<p style="text-align: center;">HISTORICAL AND CULTURAL RESOURCE VALUES</p> <p>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.</p>
UT-LN-37	<p style="text-align: center;">UTAH SENSITIVE SPECIES</p> <p>The Lessee/operator is given notice that the lands in this parcel have been identified as containing historic habitat for named 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, and 43 CFR 3101.1-2.</p>
UT-LN-42	<p style="text-align: center;">WHITE TAILED PRAIRIE DOG</p> <p>The lessee/operator is given notice that this lease parcel has been identified as containing White Tailed Prairie Dog habitat. Modifications to the Surface Use Plan of Operations may be required in order to protect White Tailed Prairie Dog from surface disturbing activities in accordance with the Endangered Species Act and .43 CFR 3101.1-2.</p>
UT-LN-52	<p style="text-align: center;">UTAH SENSITIVE SPECIES</p> <p>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. This notice may be waived, accepted, or modified by the AO if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.</p>
UT-LN-73	<p style="text-align: center;">CRUCIAL DEER AND ELK WINTER RANGE</p> <p>The lessee/operator is given notice that lands in the lease have been identified as containing crucial deer and elk winter range. Modifications including seasonal restrictions may be required to the Surface Use Plan of Operations in order to protect the winter range. This limitation does not apply to operation and maintenance of producing wells. This notice may be waived, excepted, or modified by the AO if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated</p>
UT-LN-81	<p style="text-align: center;">CRUCIAL PRONGHORN HABITAT</p> <p>The lessee/operator is given notice that the lands in this lease have been identified as crucial pronghorn (antelope) habitat. Modifications, including seasonal restrictions, may be required in the Surface Use Plan of Operations to protect pronghorn habitat.</p>

Number	UTAH'S LEASE NOTICES
UT-LN-90	<p style="text-align: center;">MIGRATORY BIRD</p> <p>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 AO of the Bureau of Land Management. Based on the result of the field survey, the AO will determine appropriate buffers and timing limitations. This notice may be waived, excepted, or modified by the AO if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.</p>
UT-LN-95	<p style="text-align: center;">POTENTIAL FOR PALEONTOLOGICAL RESOURCES</p> <p>The lessee/operator is given notice that lands in this lease have been identified as having potential paleontological resources. 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.</p>
UT-LN-109	<p style="text-align: center;">BALD EAGLE HABITAT</p> <p>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 <u>temporary</u> action is completed prior to the following breeding or roosting season leaving no permanent structures and resulting in no permanent habitat loss. A <u>permanent</u> 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. This notice may be waived, accepted, or modified by the AO if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.</p>
UT-LN-117	<p style="text-align: center;">WHITE-TAILED OR GUNNISON PRAIRIE DOG</p> <p>The lessee/operator is given notice that this lease parcel has been identified as containing white-tailed or Gunnison prairie dog habitat and that surface-disturbing activities within 660 feet of active prairie dog colonies identified within prairie dog habitat will not be allowed. Also no permanent aboveground facilities would be allowed within the 660 feet buffer. 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.</p>

Stip Number	Utah's Threatened & Endangered Species Notices
T&E-03	<p style="text-align: center;">Endangered Fish of the Upper Colorado River Drainage Basin</p> <p>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.</p> <p>Current avoidance and minimization measures include the following:</p> <ol style="list-style-type: none"> 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 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 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 the Utah Oil and Gas Pipeline Crossing Guidance, to minimize the potential for equipment damage and resulting leaks or spills. <p>Water depletions from <i>any</i> 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.</p> <p>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.</p>
T&E-06	<p style="text-align: center;">Mexican Spotted Owl</p> <p>The Lessee/Operator is given notice that the lands in this lease contain suitable habitat for Mexican spotted owl, a federally listed species. The Lessee/Operator is given notice that the lands in this lease contain Designated Critical Habitat for the Mexican spotted owl, a federally listed species. Critical habitat was designated for the Mexican spotted owl on August 31, 2004 (69 FR 53181-53298). Avoidance or use restrictions may be placed on portions of the lease. Application of appropriate measures will depend whether the action is temporary or permanent, and whether it occurs within or outside the owl nesting season. A <u>temporary</u> action is completed prior to the following breeding season leaving no permanent structures and resulting in no permanent habitat loss. A <u>permanent</u> action continues for more than one breeding season and/or causes a loss of owl habitat or displaces owls through disturbances, i.e. creation of a permanent structure. The following avoidance and minimization measures have been designed to ensure activities carried out on the lease are in compliance with the Endangered Species Act. Integration of, and adherence to these measures, will facilitate review and analysis of any submitted permits under the authority of this lease. Following these measures could reduce the scope of Endangered Species Act, Section 7 consultation at the permit stage.</p> <p>Current avoidance and minimization measures include the following:</p> <ol style="list-style-type: none"> 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

Stip Number	Utah's Threatened & Endangered Species Notices
	<p>within 0.5 mile of suitable owl habitat. Determine potential effects of actions to owls and their habitat.</p> <ol style="list-style-type: none"> 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. <ol style="list-style-type: none"> 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: <ol style="list-style-type: none"> 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: <ol style="list-style-type: none"> a. Survey two consecutive years for owls according to accepted protocol prior to commencing activities. b. If owls are found, no actions will occur within 0.5 mile of identified nest site. If nest site is unknown, no activity will occur within the designated Protected Activity Center (PAC). c. Avoid drilling and permanent structures within 0.5 mi of suitable habitat unless surveyed and not occupied. d. Reduce noise emissions (e.g., use hospital-grade mufflers) to 45 dBA at 0.5 mile from suitable habitat, including canyon rims. Placement of permanent noise-generating facilities should be determined by a noise analysis to ensure noise does not encroach upon a 0.5 mile buffer for suitable habitat, including canyon rims. e. Limit disturbances to and within suitable habitat by staying on approved routes. f. Limit new access routes created by the project. <p>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.</p>
T&E-07	<p style="text-align: center;">Southwestern Willow Flycatcher</p> <p>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 <u>temporary</u> action is completed prior to the following breeding season leaving no permanent structures and resulting in no permanent habitat loss. A <u>permanent</u> action continues for more than one breeding season and/or causes a loss of 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.</p> <p>Current avoidance and minimization measures include the following:</p> <ol style="list-style-type: none"> 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

Stip Number	Utah's Threatened & Endangered Species Notices
	<p>adjacent uplands.</p> <p>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.</p>
T&E-10	<p style="text-align: center;">California Condor</p> <p>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 <u>temporary</u> 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 <u>permanent</u> 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).</p> <p>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.</p> <p>Current avoidance and minimization measures include the following:</p> <ol style="list-style-type: none"> 1. Surveys will be required prior to operations unless species occupancy and distribution information is complete and available. All Surveys must be conducted by qualified individual(s) approved by the BLM, and must be conducted according to approved protocol. 2. If surveys result in positive identification of condor use, all lease activities will require monitoring throughout the duration of the project to ensure desired results of applied mitigation and protection. Minimization measures will be evaluated during development and, if necessary, Section 7 consultation may be reinitiated. 3. Temporary activities within 1.0 mile of nest sites will not occur during the breeding season. 4. Temporary activities within 0.5 miles of established roosting sites or areas will not occur during the season of use, August 1 to November 31, unless the area has been surveyed according to protocol and determined to be unoccupied. 5. No permanent infrastructure will be placed within 1.0 mile of nest sites. 6. No permanent infrastructure will be placed within 0.5 miles of established roosting sites or areas. 7. Remove big game carrion 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. Reinitiation 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 through consultation with the U.S. Fish and Wildlife Service to ensure continued compliance with the ESA. <p>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.</p>
T&E-14	<p style="text-align: center;">Last Chance Townsendia (<i>Townsendia aprica</i>)</p> <p>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:</p> <ul style="list-style-type: none"> • <i>Potential habitat</i> is defined as areas which 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 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>. • <i>Occupied habitat</i> is defined as areas currently or historically known to support Last Chance

Stip Number	Utah's Threatened & Endangered Species Notices
	<p>Townsendia; synonymous with "known habitat."</p> <p>The following avoidance and minimization measures should be included in the Plan of Development:</p> <ol style="list-style-type: none"> 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 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: <ol style="list-style-type: none"> 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 1st to May 30th, 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 1st the following year. 3. Design project infrastructure to minimize impacts within suitable habitat: <ol style="list-style-type: none"> 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 revegetated 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: <ol style="list-style-type: none"> 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 30th (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 30th 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.

Stip Number	Utah's Threatened & Endangered Species Notices
	<p>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.</p> <p>6. Reinitiation 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.</p>
T&E-15	<p style="text-align: center;">Wright Fishhook Cactus (<i>Sclerocactus wrightiae</i>)</p> <p>In order to minimize effects to the federally threatened Wright Fishhook 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:</p> <ul style="list-style-type: none"> • <i>Potential habitat</i> is defined as areas which 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 Wright Fishhook Cactus; 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 Wright Fishhook Cactus; synonymous with "known habitat." <p>The following avoidance and minimization measures should be included in the Plan of Development:</p> <ol style="list-style-type: none"> 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 Wright Fishhook Cactus habitat is present. 2. Within suitable habitat, 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 up slope of habitat. Where conditions allow, inventories: <ol style="list-style-type: none"> 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 1st to June 15th, 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 1st the following year. 3. Design project infrastructure to minimize impacts within suitable habitat: <ol style="list-style-type: none"> 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,

Stip Number	Utah's Threatened & Endangered Species Notices
	<ul style="list-style-type: none"> i. All disturbed areas will be revegetated 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: <ul style="list-style-type: none"> 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 1st to June 15th (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 1st through June 15th 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 Wright Fishhook 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 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. Reinitiation of section 7 consultation with the Service will be sought immediately if any loss of plants or occupied habitat for the Wright Fishhook 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-17	<p style="text-align: center;">San Rafael Cactus (<i>Pediocactus despainii</i>)</p> <p>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:</p> <p>The following avoidance and minimization measures should be included in the Plan of Development:</p> <ul style="list-style-type: none"> 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 San Rafael Cactus habitat is present. 2. Within suitable habitat, site inventories will be conducted to determine occupancy. Inventories: <ul style="list-style-type: none"> 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 and during appropriate flowering periods. Inventories should be conducted between March 15th to June 1st, unless extended by the BLM. c. Will occur within 300' from the centerline of the proposed right-of-way for surface pipelines or roads; and within 100' 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.

Stip Number	Utah's Threatened & Endangered Species Notices
	<ol style="list-style-type: none"> 3. Design project infrastructure to minimize impacts within suitable habitat: <ol style="list-style-type: none"> 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 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, h. All disturbed areas will be revegetated 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: <ol style="list-style-type: none"> a. Follow the above recommendations (#3) for project design within suitable habitats, b. Buffers of 100 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 100' buffer exists between the edge of the right of way and plants use stabilizing and anchoring techniques when the pipeline crossed the habitat to ensure 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 San Rafael Cactus habitats within 100' of the edge of the surface pipelines' right-of-ways, 100' 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 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. Reinitiation 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,
T&E-18	<p style="text-align: center;">Maguire Daisy (<i>Erigeron maguirei</i>)</p> <p>In order to minimize effects to the federally threatened Maguire Daisy, 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:</p> <ul style="list-style-type: none"> • <i>Potential habitat</i> is defined as areas which 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 Maguire Daisy; 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 Maguire Daisy; synonymous with "known habitat." <p>The following avoidance and minimization measures should be included in the Plan of Development:</p> <ol style="list-style-type: none"> 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 Maguire Daisy 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

Stip Number	Utah's Threatened & Endangered Species Notices
	<p>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:</p> <ol style="list-style-type: none"> 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 May 1st to June 30th, 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. <ol style="list-style-type: none"> 3. Design project infrastructure to minimize impacts within suitable habitat: <ol style="list-style-type: none"> 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 revegetated 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: <ol style="list-style-type: none"> 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 May 1st to June 30th (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 May 1st to June 30th 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 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 Maguire Daisy 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. Reinitiation of section 7 consultation with the Service will be sought immediately if any loss of plants or occupied habitat for the Maguire Daisy is anticipated as a result of project activities.

Stip Number	Utah's Threatened & Endangered Species Notices
	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.