

## DECEMBER 2018 STIPULATIONS AND NOTICES

<b>STIPULATIONS</b>	
<b>UT-S-01</b>	<p style="text-align: center;"><b>AIR QUALITY</b></p> <p>All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower shall not emit more than 2 grams of NO<sub>x</sub> per horsepower-hour.</p> <p><b>Exception:</b> This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.</p> <p><b>Modification:</b> None</p> <p><b>Waiver:</b> None</p> <p><b>AND</b></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 gram of NO<sub>x</sub> per horsepower-hour.</p> <p><b>Exception:</b> None</p> <p><b>Modification:</b> None</p> <p><b>Waiver:</b> None</p>
<b>UT-S-17</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE – ALKALI RIDGE ACEC</b></p> <p>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.</p> <p><b>Exceptions:</b> 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).</p> <p><b>Modification:</b> None</p> <p><b>Waiver:</b> None</p>
<b>UT-S-24</b>	<p style="text-align: center;"><b>NO SURFACE OCCUPANCY/CONTROLLED SURFACE USE/TIMING LIMITATIONS – RED CREEK WATERSHED ACEC</b></p> <p>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.</p> <p><b>Exception:</b> None</p> <p><b>Modification:</b> None</p> <p><b>Waiver:</b> None</p>
<b>UT-S-52</b>	<p style="text-align: center;"><b>NO SURFACE OCCUPANCY – RECREATION AND ADMINISTRATIVE SITES</b></p> <p>No surface occupancy within developed recreation and administrative sites including those authorized under the Recreation and Public Purpose Act.</p>

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	<p><b>Exception:</b> An exception could be granted for surface disturbance that supports the recreation or administrative objectives of the site.</p> <p><b>Modification:</b> None</p> <p><b>Waiver:</b> None</p>
<b>UT-S-77</b>	<p style="text-align: center;"><b>NO SURFACE OCCUPANCY – MOAB CANYON UTILITY CORRIDOR</b></p> <p>No mineral activities allowed within the utility corridor other than those associated with utilities.</p> <p><b>Purpose:</b> To prevent future surface use conflicts along Highway 191 and within the utility corridor.</p> <p><b>Exception:</b> 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.</p> <p><b>Modification:</b> 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.</p> <p><b>Waiver:</b> 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.</p>
<b>UT-S-87</b>	<p><b>NO SURFACE OCCUPANCY – WHITE RIVER BLM NATURAL AREA</b></p> <p>No surface occupancy within the White River BLM Natural Area.</p> <p><b>Exception:</b> 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:</p>

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	<ul style="list-style-type: none"> <li>• Vegetation and fuel treatments using prescribed fire, mechanical and chemical treatments, and other actions compatible with the Healthy Lands Initiative (HLI);</li> <li>• Construction of wildlife water and livestock facilities, and minimal recreation facilities;</li> <li>• Authorize reasonable access to non-BLM managed lands.</li> </ul> <p><b>Modification:</b> None <b>Waiver:</b> None</p>
<b>UT-S-96</b>	<p style="text-align: center;"><b>NO SURFACE OCCUPANCY – FRAGILE SOILS/SLOPES GREATER THAN 40%</b></p> <p>No surface occupancy for slopes greater than 40 percent.</p> <p><b>Exception:</b> 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:</p> <ul style="list-style-type: none"> <li>• An erosion control strategy;</li> <li>• GIS modeling;</li> <li>• Proper survey and design by a certified engineer.</li> </ul> <p><b>Modification:</b> 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><b>Waiver:</b> None</p>
<b>UT-S-97</b>	<p style="text-align: center;"><b>NO SURFACE OCCUPANCY – FRAGILE SOILS/SLOPES GREATER THAN 40 PERCENT</b></p> <p>No surface occupancy on slopes greater than 40 percent.</p> <p><b>Exception:</b> 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:</p> <ul style="list-style-type: none"> <li>• An erosion control strategy;</li> <li>• GIS modeling;</li> <li>• Proper survey and design by a certified engineer.</li> </ul> <p><b>Modification:</b> None <b>Waiver:</b> None</p>

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<b>UT-S-98</b>	<p style="text-align: center;"><b>NO SURFACE OCCUPANCY – FRAGILE SOILS/SLOPES GREATER THAN 40 PERCENT</b></p> <p>No new surface-disturbing activities allowed on slopes greater than 40% to protect soils, avoid erosion, and maintain public health and safety in sloped embankments.</p> <p><b>Exception:</b> If after an analysis the authorized officer determines that it would cause undue or unnecessary degradation to pursue other placement alternatives; surface occupancy in the NSO may be authorized. Additionally, a plan would be submitted by the operator and approved by BLM prior to construction and maintenance.</p> <p><b>Modification:</b> None  <b>Waiver:</b> None</p>
<b>UT-S-99</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE – FRAGILE SOILS/SLOPES</b></p> <p>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.</p> <p><b>Exception:</b> None  <b>Modification:</b> None  <b>Waiver:</b> None</p>
<b>UT-S-100</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE – FRAGILE SOILS/SLOPES (21%-40%)</b></p> <p>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:</p> <ul style="list-style-type: none"> <li>• An erosion control strategy;</li> <li>• GIS modeling;</li> <li>• Proper survey and design by a certified engineer.</li> </ul> <p><b>Exception:</b> None  <b>Modification:</b> None  <b>Waiver:</b> None</p>
<b>UT-S-101</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE – FRAGILE SOILS/SLOPES 20-40 PERCENT</b></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><b>Exception:</b> 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</p>

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	<p>plan from the operator and BLM’s approval of the plan would be required before construction and maintenance could begin. The plan must include:</p> <ul style="list-style-type: none"> <li>• An erosion control strategy;</li> <li>• GIS modeling;</li> <li>• Proper survey and design by a certified engineer.</li> </ul> <p><b>Modification:</b> 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.</p> <p><b>Waiver:</b> None</p>
<b>UT-S-102</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE – FRAGILE SOILS/SLOPES 30 PERCENT OR GREATER</b></p> <p>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.</p> <p><b>Exception:</b> None  <b>Modification:</b> None  <b>Waiver:</b> None</p>
<b>UT-S-106</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE – FRAGILE SOILS/SLOPES 21-40 PERCENT</b></p> <p>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.</p> <p><b>Exception:</b> None  <b>Modification:</b> None  <b>Waiver:</b> None</p>
<b>UT-S-108</b>	<p style="text-align: center;"><b>TIMING LIMITATION – 30% SLOPES OR GREATER – BOOKCLIFFS</b></p> <p>No surface-disturbing activities are allowed from <b>November 1 to April 30</b> where slopes are greater than 30% in the Bookcliffs to minimize watershed damage in fragile soils on steep slopes. This restriction includes heavy equipment traffic on existing roads associated with drilling operations.</p> <p><b>Exception:</b> 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</p>

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	<p>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.</p> <p><b>Modification:</b> None <b>Waiver:</b> None</p>
<b>UT-S-109</b>	<p style="text-align: center;"><b>TIMING LIMITATION – FRAGILE SOILS – MANCOS SHALE</b></p> <p>No surface-disturbing activities allowed during <b>December 1 to May 31</b> 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.</p> <p><b>Exception:</b> 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.</p> <p><b>Modification:</b> None <b>Waiver:</b> None</p>
<b>UT-S-111</b>	<p style="text-align: center;"><b>NO SURFACE OCCUPANCY – WETLAND/HYDRIC SOILS</b></p> <p>No surface occupancy on wetland soils or soils identified as having hydric soil properties.</p> <p><b>Exception:</b> 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:</p> <ul style="list-style-type: none"> <li>• Erosion control strategies;</li> <li>• Mitigation to protect surface from rutting, compaction, and displacement, and disruption of surface and subsurface hydrologic function;</li> <li>• Mitigation or restoration measures to restore hydrologic function to site;</li> <li>• Proper survey and design by a certified engineer.</li> </ul> <p><b>Modification:</b> None <b>Waiver:</b> None</p>
<b>UT-S-120</b>	<p style="text-align: center;"><b>NO SURFACE OCCUPANCY – WHITE RIVER CORRIDOR</b></p> <p>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.</p> <p><b>Exception:</b> Recognized utility corridors are excepted.</p> <p><b>Modification:</b> None <b>Waiver:</b> None</p>

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<b>UT-S-121</b>	<p style="text-align: center;"><b>NO SURFACE OCCUPANCY – RIPARIAN AND WETLAND AREAS</b></p> <p>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.</p> <p><b>Exception:</b> 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.</p> <p><b>Modification:</b> None</p> <p><b>Waiver:</b> None</p>
<b>UT-S-122</b>	<p style="text-align: center;"><b>NO SURFACE OCCUPANCY – FLOODPLAINS, RIPARIAN AREAS, SPRINGS AND PUBLIC WATER RESOURCES</b></p> <p>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.</p> <p><b>Exception:</b> 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.</p> <p><b>Modification:</b> None</p> <p><b>Waiver:</b> None</p>
<b>UT-S-123</b>	<p style="text-align: center;"><b>NO SURFACE OCCUPANCY – RIPARIAN, FLOODPLAINS, AND PUBLIC WATER RESERVES</b></p> <p>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.</p> <p><b>Exception:</b> 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><b>Modification:</b> None</p> <p><b>Waiver:</b> None</p>
<b>UT-S-127</b>	<p style="text-align: center;"><b>NO SURFACE OCCUPANCY – INTERMITTENT AND PERENNIAL STREAMS</b></p> <p>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.</p> <p><b>Exception:</b> The authorized officer could authorize an exception if it could be shown that the project as mitigated eliminated the need for the restriction.</p>

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	<p>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><b>Modification:</b> None</p> <p><b>Waiver:</b> None</p>
<b>UT-S-128</b>	<p style="text-align: center;"><b>NO SURFACE OCCUPANCY – FLOODPLAINS, RIPARIAN AREAS, SPRINGS, AND PUBLIC WATER RESERVES</b></p> <p>No surface-disturbing activities are allowed in active floodplains, public water reserves or within 100 meters of riparian areas along perennial streams and springs.</p> <p><b>Exception:</b> 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.</p> <p><b>Modification:</b> None</p> <p><b>Waiver:</b> None</p>
<b>UT-S-156</b>	<p style="text-align: center;"><b>TIMING LIMITATION – HIGH-COUNTRY WATERSHED AREAS</b></p> <p>High-country watershed areas (above 7,000 feet) will be closed seasonally from <b>December 1 to April 15.</b></p> <p><b>Exception:</b> Upon review and monitoring, the authorized officer may grant exceptions because of climatic conditions if activities would not cause undue damage to soils or roads.</p> <p><b>Modification:</b> Season may be adjusted depending on climatic and vegetation conditions.</p> <p><b>Waiver:</b> Activities may be allowed as long as all surface disturbing activities are conducted before seasonal closure.</p>
<b>UT-S-157</b>	<p style="text-align: center;"><b>NO SURFACE OCCUPANCY/CONTROLLED SURFACE USE/TIMING LIMITATION – VISUAL RESOURCES</b></p> <p>Visual resource management activities will comply with BLM Handbook 8410-1.</p> <p>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.</p> <p>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 form, line, color and texture found in the predominant natural features of the characteristic landscape.</p> <p>Within VRM Class III areas, surface disturbing activities will partially retain the existing character of the landscape. The allowable level of change will be</p>



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	<p>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.</p> <p>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.</p> <p><b>Exception:</b> Exempted are recognized utility corridors.</p> <p><b>Modification:</b> None</p> <p><b>Waiver:</b> None</p>
<b>UT-S-159</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE – VISUAL RESOURCES – VRM II</b></p> <p>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.</p> <p><b>Exception:</b> Exempted are recognized utility corridors.</p> <p><b>Modification:</b> None</p> <p><b>Waiver:</b> None</p>
<b>UT-S-160</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE – VISUAL RESOURCES – VRM II</b></p> <p>Within VRM II areas, surface disturbing activities will comply with BLM Manual Handbook 8431-1 to retain the existing character of the landscape.</p> <p><b>Exception:</b> Recognized utility corridors are exempt. Temporary exceedance may be allowed during initial development phases.</p> <p><b>Modification:</b> None</p> <p><b>Waiver:</b> None</p>
<b>UT-S-161</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE – VRM CLASS II AREAS</b></p> <p>Surface disturbing activities must meet the objectives of Visual Resource Management (VRM) Class II.</p> <p><b>Exception:</b> 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 must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape. Surface disturbing activities that are determined to be compatible and consistent with the protection or enhancement of the resource values are exempted. Also, recognized utility corridors are exempted only for utility projects, which would be managed according to VRM Class III objectives.</p> <p><b>Modification:</b> None</p>

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	<p><b>Waiver:</b> None</p>
<b>UT-S-169</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE – CULTURAL RESOURCE INVENTORIES</b></p> <p>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.</p> <p><b>Waiver of Inventory:</b> 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:</p> <ul style="list-style-type: none"> <li>• 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.)</li> <li>• 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.</li> <li>• 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.</li> <li>• Previous inventories must have been conducted according to current professionally acceptable standards.</li> <li>• Records are available and accurate and document the location, methods, and results of the inventory.</li> <li>• 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.</li> <li>• 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.</li> <li>• Natural environmental characteristics (such as recent landslides or rock falls) are unfavorable to the presence of cultural properties.</li> <li>• The nature of the proposed action is such that no impact can be expected on significant cultural resources.</li> <li>• Conditions exist that could endanger the health or safety of personnel, such as the presence of hazardous materials, explosive ordnance, or unstable structures.</li> </ul>

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<b>UT-S-170</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE – CULTURAL</b></p> <p>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.)</p> <p><b>Exceptions:</b> 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).</p> <p><b>Modification:</b> None</p> <p><b>Waiver:</b> None</p>
<b>UT-S-175</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE/TIMING LIMITATIONS CULTURAL RESOURCES – UPPER WILLOW CREEK AREA OF THE BOOK CLIFFS</b></p> <p>To preserve the unique representation of the Archaic period, the surface disturbing activities will be subject to timing and controlled surface use stipulations.</p> <p><b>Exception:</b> None</p> <p><b>Modification:</b> None</p> <p><b>Waiver:</b> None</p>
<b>UT-S-176</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE – FOSSIL RESOURCES (PRECONSTRUCTION SURVEYS)</b></p> <p>Preconstruction paleo surveys will be required prior to any surface disturbing activity in the Morrison, Cedar Mountain, Blackhawk, North Horn, or Chinle Formations.</p> <p><b>Exception:</b> The authorized officer may grant an exception if the area has previously been inventoried within the last three (3) years.</p> <p><b>Modification:</b> None</p> <p><b>Waiver:</b> None</p>
<b>UT-S-177</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE – FOSSIL RESOURCES</b></p> <p>A BLM permitted paleontologist will be required to be onsite during surface disturbance in any Potential Fossil Yield Classification (PFYC) 4 or 5 areas.</p> <p><b>Exceptions:</b> None</p> <p><b>Modification:</b> None</p> <p><b>Waiver:</b> None</p>
<b>UT-S-182</b>	<p style="text-align: center;"><b>NO SURFACE OCCUPANCY – CRITICAL HABITAT OF THE ENDANGERED COLORADO RIVER FISHES</b></p> <p>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</p>

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(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.
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

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	<p>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.</p> <p><b>Exception:</b> 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.</p> <p><b>Modification:</b> 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.</p> <p><b>Waiver:</b> 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.</p>
<b>UT-S-218</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE – WHITE-TAILED PRAIRIE DOG</b></p> <p>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.</p> <p><b>Exception:</b> 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.</p> <p><b>Modification:</b> The authorized officer 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><b>Waiver:</b> May be granted if in the leasehold if it is determined that habitat no longer exists or has been destroyed.</p>
<b>UT-S-224</b>	<p style="text-align: center;"><b>TIMING LIMITATION – PRONGHORN FAWNING GROUNDS</b></p> <p>No surface-disturbing activities from <b>May 1 to June 15</b> within Cisco Desert and Hatch Point pronghorn fawning grounds to minimize stress and disturbance during critical pronghorn birthing time.</p>

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	<p><b>Exception:</b> 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.</p> <p><b>Modification:</b> 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.</p> <p><b>Waiver:</b> 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.</p>
<b>UT-S-229</b>	<p style="text-align: center;"><b>TIMING LIMITATION – CRUCIAL DEER AND ELK WINTER RANGE</b></p> <p>No surface disturbing activities from <b>November 15 to April 15</b> within crucial deer and/or elk winter range to minimize stress and disturbance to deer and elk during critical winter months.</p> <p><b>Exception:</b> This stipulation does not apply to the maintenance and operation of existing and ongoing facilities. An exception may be granted by the authorized officer if the operator submits a plan which demonstrates that impacts from the proposed action can be adequately mitigated or it is determined the habitat is not being utilized during the winter period for any given year.</p> <p><b>Modification:</b> The authorized officer may modify the boundaries of the stipulation area (1) if a portion of the area is not being used as winter range by deer/elk or (2) if habitat is being utilized outside of stipulation boundaries as winter range and needs to be protected or (3) if the migration patterns have changed causing a difference in the season of use.</p> <p><b>Waiver:</b> 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>
<b>UT-S-230</b>	<p style="text-align: center;"><b>TIMING LIMITATION – CRUCIAL DEER AND ELK WINTER RANGE</b></p> <p>No surface disturbing activities in deer and elk crucial winter range from <b>December 1 - April 30</b>.</p> <p><b>Exception:</b> 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.</p> <p><b>Modification:</b> 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.</p>

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	<p><b>Waiver:</b> 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</p>
<b>UT-S-231</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE – CRUCIAL DEER WINTER RANGE</b></p> <p>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.</p> <p><b>Exception:</b> This stipulation may be excepted if either the resource values change or the lessee/operator demonstrates to BLMs satisfaction that impacts can be mitigated.</p> <p><b>Modification:</b> None</p> <p><b>Waiver:</b> None</p>
<b>UT-S-232</b>	<p style="text-align: center;"><b>TIMING LIMITATION – MULE DEER AND ELK CRUCIAL WINTER RANGE</b></p> <p>No surface disturbing or otherwise disruptive activities within mule deer and elk crucial winter range from <b>December 1 to April 15</b>.</p> <p><b>Exception:</b> 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.</p> <p><b>Modification:</b> Season may be adjusted depending on climatic and range conditions.</p> <p><b>Waiver:</b> 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.</p>
<b>UT-S-233</b>	<p style="text-align: center;"><b>TIMING LIMITATION – CRUCIAL MULE DEER AND ELK WINTER HABITAT</b></p> <p>Restrict surface disturbing activities in crucial mule deer and elk habitats from <b>December 15 to April 15</b> to protect winter habitats.</p> <p><b>Exception:</b> 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.</p> <p><b>Modification:</b> 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.</p> <p><b>Waiver:</b> 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.</p>

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<b>UT-S-234</b>	<p style="text-align: center;"><b>TIMING LIMITATION – CRUCIAL DEER WINTER RANGE</b></p> <p>No surface-disturbing activities within crucial deer winter range from <b>November 15 to April 15 to minimize stress and disturbance to deer during crucial winter months.</b></p> <p><b>Exception:</b> 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.</p> <p><b>Modification:</b> 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.</p> <p><b>Waiver:</b> 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.</p>
<b>UT-S-242</b>	<p style="text-align: center;"><b>TIMING LIMITATION – CRUCIAL ELK WINTER RANGE</b></p> <p>No surface-disturbing activities within crucial elk winter range from <b>November 15 to April 15 to minimize stress and disturbance to elk during crucial winter months.</b></p> <p><b>Exception:</b> 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.</p> <p><b>Modification:</b> The authorized officer may modify the boundaries of the stipulation area if a portion of the area is not being used as elk winter range.</p> <p><b>Waiver:</b> May be granted if the elk winter range is determined to be unsuitable or unoccupied and there is no reasonable likelihood of future use of the elk winter range.</p>
<b>UT-S-246</b>	<p style="text-align: center;"><b>TIMING LIMITATION – DEER AND ELK FAWNING AND CALVING HABITAT</b></p> <p>No surface disturbing activities in deer and elk fawning and calving habitat from <b>May 15 to June 30</b> to minimize stress and disturbance during this critical period.</p> <p><b>Exception:</b> This stipulation does not apply to the maintenance and operation of existing and ongoing facilities. An exception may be granted by the authorized officer if the operator submits a plan which demonstrates that impacts from the proposed action can be adequately mitigated or it is determined the habitat is not being utilized during the critical period for any given year.</p> <p><b>Modification:</b> The authorized officer may modify the boundaries of the stipulation area (1) if a portion of the area is not being used as fawning and calving habitat or (2) if the habitat is being utilized outside of stipulation boundaries and needs to be protected or (3) if the migration patterns have changed causing a difference in the season of use.</p>



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	<p><b>Waiver:</b> May be granted if the fawning and calving habitat is unsuitable or unoccupied during winter months by deer/elk and there is no reasonable likelihood of future winter range use.</p>
<b>UT-S-247</b>	<p style="text-align: center;"><b>TIMING LIMITATION – CRUCIAL ELK CALVING AND DEER FAWNING HABITAT</b></p> <p>In order to protect crucial elk calving and deer fawning habitat exploration, drilling, and other development activity will not be allowed from <b>May 15 - June 30</b>.</p> <p><b>Exception:</b> 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.</p> <p><b>Modification:</b> None</p> <p><b>Waiver:</b> None</p>
<b>UT-S-248</b>	<p style="text-align: center;"><b>TIMING LIMITATION – MULE DEER FAWNING AND ELK CALVING AREAS</b></p> <p>No surface disturbing or otherwise disruptive activities within mule deer fawning and elk calving areas from <b>May 15 to July 5</b>.</p> <p><b>Exception:</b> 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 elk populations or habitats.</p> <p><b>Modification:</b> Season may be adjusted depending on climatic and range conditions.</p> <p><b>Waiver:</b> A waiver may be granted if the fawning and calving habitat is unsuitable or unoccupied by deer/elk and there is no reasonable likelihood of future use.</p>
<b>UT-S-251</b>	<p style="text-align: center;"><b>TIMING LIMITATION – DEER MIGRATION CORRIDOR (MONUMENT AND McCOOK RIDGES)</b></p> <p>No surface-disturbing activities from <b>April 15-May 31</b> within McCook and Monument Ridge mule deer migration corridors.</p> <p><b>Exception:</b> 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.</p> <p><b>Modification:</b> None</p> <p><b>Waiver:</b> None</p>
<b>UT-S-257</b>	<p style="text-align: center;"><b>TIMING LIMITATION – MOOSE WINTER RANGE</b></p> <p>No surface disturbing or otherwise disruptive activities within moose winter range from <b>December 1 to April 15</b>.</p> <p><b>Exception:</b> Upon review and monitoring, the authorized officer may grant exceptions because of climatic and/or range conditions if certain criteria are</p>

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	<p>met and if activities would not cause undue stress to moose populations or habitats.</p> <p><b>Modification:</b> Season may be adjusted depending on climatic and range conditions.</p> <p><b>Waiver:</b> A waiver may be granted if the winter range habitat is unsuitable or unoccupied during winter months by moose and there is no reasonable likelihood of future winter range use.</p>
<b>UT-S-260</b>	<p style="text-align: center;"><b>TIMING LIMITATION – RAPTOR HABITAT</b></p> <p>Raptor nesting complexes and known raptor nest sites will be closed seasonally from <b>February 1 to July 15</b> within ½ mile of occupied nests.</p> <p><b>Exception:</b> The authorized officer 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><b>Modification:</b> Season may be adjusted depending on climatic and range conditions. Distance may be adjusted if natural features provide adequate visual screening.</p> <p><b>Waiver:</b> 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>
<b>UT-S-261</b>	<p style="text-align: center;"><b>TIMING LIMITATION – RAPTOR BUFFERS</b></p> <p>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.</p> <p><b>Exception:</b> None</p> <p><b>Modification:</b> Criteria that would need to be met, prior to implementing modifications to the spatial and seasonal buffers in the “<i>Raptor BMPs</i>”, would include the following:</p> <ol style="list-style-type: none"> <li>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)</li> <li>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.</li> <li>3. Development of a monitoring and mitigation strategy by a BLM biologist, or other raptor biologist. Impacts of authorized activities would be</li> </ol>

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	<p>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.</p> <p><b>Waiver:</b> None</p>
<b>UT-S-269</b>	<p style="text-align: center;"><b>NO SURFACE OCCUPANCY – MEXICAN SPOTTED OWL NESTS</b></p> <p>No surface occupancy within 1/2 mile of known Mexican Spotted Owl (MSO) nests.</p> <p><b>Exception:</b> 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.</p> <p><b>Modification:</b> 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.</p> <p><b>Waiver:</b> 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.</p>
<b>UT-S-272</b>	<p style="text-align: center;"><b>CONDITIONAL SURFACE USE/TIMING LIMITATION – BURROWING OWL AND FERRUGINOUS HAWK NESTING</b></p> <p>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.</p> <p><b>Exception:</b> An exception would be granted if protocol surveys determine that nesting sites, breeding territories, and winter roosting areas are not occupied.</p> <p><b>Modification:</b> 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.</p> <p><b>Waiver:</b> May be granted if it is determined the habitat no longer exists or has been destroyed.</p>
<b>UT-S-273</b>	<p style="text-align: center;"><b>CONDITIONAL SURFACE USE/TIMING LIMITATION – GOLDEN EAGLE NESTING SITES AND TERRITORIES</b></p> <p>No surface-disturbing activities will be allowed within a 0.5 miles radius of documented Golden Eagle nest sites within nesting territories from February 1 to July 15th or until fledgling and dispersal of young. Any access created by the</p>

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	<p>action will be outside of nesting season and will be eliminated once action is complete.</p> <p><b>Exception:</b> An exception may be granted by the authorized officer if authorization is obtained from USFWS and UDWR. The authorized officer may also grant an exception if an environmental analysis indicates that the nature or the conduct of the actions, as proposed or conditioned, would not impair the primary constituent element determined necessary for the survival and recovery of the Golden Eagle.</p> <p><b>Modification:</b> The authorized officer may modify the boundaries of the stipulation area if an environmental analysis indicates and USFWS and UDWR determine a portion of the area is not being used as Golden Eagle nesting territories.</p> <p><b>Waiver:</b> A waiver may be granted if an individual Golden Eagle nest has been inactive (unoccupied) for at least a period of 3 years. Nest-monitoring data for a 3-year period would be required before the waiver could be granted.</p>
<b>UT-S-275</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE/TIMING LIMITATION – BALD EAGLES</b></p> <p>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.</p> <p>These requirements would help to mitigate the adverse impacts of human disturbance on bald eagles during breeding and roosting seasons.</p> <ol style="list-style-type: none"> <li>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.</li> <li>2. Lease activities will require monitoring throughout the duration of the project. To ensure desired results are being achieved, minimization measures would be evaluated.</li> </ol>

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	<p>3. Water production will be managed to ensure maintenance or enhancement of riparian habitat.</p> <p>4. Temporary activities within 1.0 mile of nest sites will not occur during the breeding season of <b>January 1 to August 31</b>, unless the area has been surveyed according to protocol and determined to be unoccupied.</p> <p>5. Temporary activities within 0.5 miles of winter roost areas, e.g., cottonwood galleries, will not occur during the winter roost season of <b>November 1 to March 31</b>, unless the area has been surveyed according to protocol and determined to be unoccupied.</p> <p>6. No permanent infrastructure will be placed within 1.0 mile of nest sites.</p> <p>7. No permanent infrastructure will be placed within 0.5 miles of winter roost areas.</p> <p>8. Remove big game carrion within 100 feet of lease roadways occurring within Bald Eagle foraging range.</p> <p>9. Avoid loss or disturbance to large cottonwood gallery riparian habitats.</p> <p>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.</p> <p>11. All areas of surface disturbance within riparian areas and/or adjacent uplands should be re-vegetated with native species.</p> <p>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.</p> <p><b>Exception:</b> 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.</p> <p><b>Modification:</b> 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.</p> <p><b>Waiver:</b> May be granted if there is no reasonable likelihood of site occupancy over a minimum 10 year period</p>
<b>UT-S-276</b>	<p><b>CONTROLLED SURFACE USE/TIMING LIMITATIONS – BALD EAGLE</b></p> <p>The Lessee/Operator is given notice that the lands in this parcel contains nesting/winter roost habitat for the bald eagle, a federally listed species.</p>

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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 (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. 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 from 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 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

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	<p>uplands should be re-vegetated with native species.</p> <p>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 consultation with the U.S. Fish and Wildlife Service to ensure continued compliance with the ESA.</p> <p><b>Exception:</b> None  <b>Modification:</b> None  <b>Waiver:</b> None</p>
<b>UT-S-278</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE – BALD EAGLE WINTER ROOST</b></p> <p>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.</p> <p><b>Exception:</b> None  <b>Modification:</b> None  <b>Waiver:</b> None</p>
<b>UT-S-285</b>	<p style="text-align: center;"><b>TIMING LIMITATION – MIGRATORY BIRD NESTING</b></p> <p>Migratory bird nesting areas will be closed seasonally from <b>April 15 to August 1</b>. Areas with migratory birds designated as BLM Special Status Species will have the highest priority.</p> <p><b>Exception:</b> 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.</p> <p><b>Modification:</b> Season may be adjusted depending on climatic and range conditions. Distance may be adjusted if natural features provide adequate visual screening.</p> <p><b>Waiver:</b> None</p>
<b>UT-S-288</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE/TIMING LIMITATION – MEXICAN SPOTTED OWL</b></p> <p>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</p>

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could reduce the scope of Endangered Species Act, Section 7 consultation at the permit stage.

Current avoidance and minimization measures include the following:

1. Surveys will be required prior to implementation of the proposed action. All surveys must be conducted by qualified individual(s) acceptable to the BLM.
2. Assess habitat suitability for both nesting and foraging using accepted habitat models in conjunction with field reviews. Apply the conservation measures below if project activities occur within 0.5 mile of suitable owl habitat. Determine potential effects of actions to owls and their habitat.
  - a. Document type of activity, acreage and location of direct habitat impacts, type and extent of indirect impacts relative to location of suitable owl habitat.
  - b. Document if action is temporary or permanent.
3. Lease activities will require monitoring throughout the duration of the project. To ensure desired results are being achieved, minimization measures will be evaluated, and, if necessary, Section 7 consultation reinitiated.
4. Any activity that includes water production will be managed to ensure maintenance or enhancement of riparian habitat.
5. Where technically and economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and eliminate drilling in canyon habitat suitable for MSO nesting.
6. For all temporary actions that may impact owls or suitable habitat:
  - a. If the action occurs entirely outside of the owl breeding season from **March 1 through August 31**, and leaves no permanent structure or permanent habitat disturbance, the action can proceed without an occupancy survey.
  - b. If the action will occur during a breeding season, a survey for owls is required prior to commencing the activity. If owls are found, the activity shall be delayed until outside of the breeding season.
  - c. Rehabilitate access routes created by the project through such means as raking out scars, re-vegetation, gating access points, etc.
7. For all permanent actions that may impact owls or suitable habitat:
  - a. Survey two consecutive years for owls according to accepted protocol prior to commencing activities.
  - b. If owls are found, no disturbing actions will occur within 0.5 mile of an identified site. If nest site is unknown, no activity will occur within the designated current and historic Protected Activity Center (PAC).
  - c. Avoid permanent structures within 0.5 mile of suitable habitat unless surveyed and not occupied.



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	<p>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.</p> <p>e. Limit disturbances to and within suitable habitat by staying on designated and/or approved routes.</p> <p>f. Limit new access routes created by the project.</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> <p>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.</p> <p><b>Exception:</b> 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.</p> <p><b>Modification:</b> 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.</p> <p><b>Waiver:</b> 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.</p>
<b>UT-S-290</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE/TIMING LIMITATION – SOUTHWESTERN WILLOW FLYCATCHER</b></p> <p>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 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</p>

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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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	<p><b>Waiver:</b> 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.</p>
<b>UT-S-293</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE/TIMING LIMITATIONS – CALIFORNIA CONDOR</b></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 (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:</p> <ol style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>3. Temporary activities within 1.0 mile of nest sites will not occur during the breeding season.</li> <li>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.</li> <li>5. No permanent infrastructure will be placed within 1.0 mile of nest sites.</li> <li>6. No permanent infrastructure will be placed within 0.5 miles of established roosting sites or areas.</li> <li>7. Remove big game carrion from within 100 feet from lease roadways occurring within foraging range.</li> </ol>

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	<p>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.</p> <p>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.</p> <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 ESA.</p> <p><b>Exception:</b> None  <b>Modification:</b> None  <b>Waiver:</b> None</p>
<b>UT-S-294</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE/TIMING LIMITATION – CALIFORNIA CONDOR</b></p> <p>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).</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. Current avoidance and minimization measures include the following:</p> <ol style="list-style-type: none"> <li>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.</li> <li>2. If surveys result in positive identification of condor use, all lease activities</li> </ol>

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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 provisions of the ESA) determines that a portion of the area is not being used as California Condor nesting or roosting territories.

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	<p><b>Waiver:</b> May be granted (through applicable provisions of the ESA) if there is no reasonable likelihood of site occupancy over a minimum 10-year period.</p>
<b>UT-S-297</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE/TIMING LIMITATION – YELLOW-BILLED CUCKOO</b></p> <p>No surface-disturbing activities will be conducted within 100 meters of Yellow-billed Cuckoo habitat (riparian areas) from <b>May 15<sup>th</sup> through July 20<sup>th</sup></b>.</p> <p><b>Exception:</b> 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.</p> <p><b>Modification:</b> 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.</p> <p><b>Waiver:</b> 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.</p>
<b>UT-S-298</b>	<p style="text-align: center;"><b>CONDITIONAL SURFACE USE – KIT FOX</b></p> <p>No surface disturbances within 200 meters of a kit fox den.</p> <p><b>Exception:</b> An exception could be granted if protocol surveys determine that kit fox dens are not present.</p> <p><b>Modification:</b> The authorized officer may modify the stipulation area if portions of the area do not contain habitat.</p> <p><b>Waiver:</b> A waiver may be granted if it is determined that the habitat no longer exists.</p>
<b>UT-S-299</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE/TIMING LIMITATIONS – BLACK-FOOTED FERRET – PRIMARY MANAGEMENT ZONE AREA</b></p> <p>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.</p> <p>New power lines constructed through the PMZ will be raptor proof.</p> <p>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</p>

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ferret habitat 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

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	<b>Waiver:</b> None
<b>UT-S-302</b>	<p style="text-align: center;"><b>NO SURFACE OCCUPANCY – OLD GROWTH PINION PINE</b></p> <p>No surface occupancy within the 160 acres containing old growth pinion pines.</p> <p><b>Exception:</b> None  <b>Modification:</b> None  <b>Waiver:</b> None</p>
<b>UT-S-305</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE – NOXIOUS WEED</b></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><b>Exception:</b> None  <b>Modification:</b> None  <b>Waiver:</b> None</p>
<b>UT-S-306</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE – NAVAJO SEDGE</b></p> <p>In areas that contain habitat for Navajo sedge, actions will be avoided or restricted if that area is known or suspected to be habitat for Navajo sedge and the action may cause stress or disturbance to the plant.</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> <ol style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>3. Project activities must be designed to avoid direct disturbance to populations and to individual plants:</li> </ol>



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- 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 100 feet minimum between surface disturbances and plants and populations will be incorporated.
  - c. Where populations occur within 200 ft. of well pads, establish a buffer or fence the individuals or groups of individuals during and post-construction.
  - 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. Navajo Sedge, avoid loss or disturbance of riparian habitats:
    - a. Ensure that water extraction or disposal practices do not result in change of hydrologic regime.
  5. Limit disturbances to and within suitable habitat by staying on designated routes.
  6. Limit new access routes created by the project.
  7. Place signing to limit ATV travel in sensitive areas.
  8. Implement dust abatement practices near occupied plant habitat.
  9. All disturbed areas will be re-vegetated with native species comprised of species indigenous to the area.
  10. Post construction monitoring for invasive species will be required.
  11. 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.

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.

**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 indicated that the nature of the conduct of the actions, as proposed or conditioned, would not impair the survival and recovery of the Navajo Sedge 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 no longer suitable habitat for Navajo Sedge.

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	<p><b>Waiver:</b> May be granted if the Navajo Sedge is delisted and if USFWS determines it is not necessary for the survival and recovery of the Navajo Sedge.</p>
<b>UT-S-325</b>	<p style="text-align: center;"><b>TIMING LIMITATION – RAPTOR NEST SITES</b></p> <p>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</p> <p>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</p> <p><b>Exception:</b> An exception could be granted if surveys determine that nesting sites are not occupied.</p> <p><b>Modification:</b> 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.</p> <p><b>Waiver:</b> A waiver may be granted if it is determined the habitat no longer exists or has been destroyed.</p>
<b>UT-S-326</b>	<p style="text-align: center;"><b>LOWER GREEN RIVER EXPANSION</b></p> <p>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.</p> <p><b>Exception:</b> An exception will be granted if the disturbance complemented recreational goals and objectives.</p> <p><b>Modification:</b> None</p> <p><b>Waiver:</b> None</p>
<b>UT-S-329</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE – SLOPES GREATER THAN 30%</b></p> <p>No surface-disturbing activities are allowed on slopes greater than 30% to minimize watershed damage throughout the Moab Planning Area in fragile soils. This restriction includes heavy equipment traffic on existing roads associated with drilling operations.</p> <p><b>Purpose:</b> To minimize watershed damage in fragile soils on steep slopes.</p> <p><b>Exception:</b> 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.</p> <p><b>Modification:</b> None</p> <p><b>Waiver:</b> None</p>

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UT-S-340	<p data-bbox="418 285 1409 352"><b>CONTROLLED SURFACE USE/TIMING LIMITATION – MEXICAN SPOTTED OWL HABITAT AND NEST SITES</b></p> <p data-bbox="418 365 1422 722">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:</p> <ol data-bbox="418 735 1422 1904" style="list-style-type: none"><li data-bbox="418 735 1422 840">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.</li><li data-bbox="418 850 1422 1144">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.<ol data-bbox="467 997 1422 1144" style="list-style-type: none"><li data-bbox="467 997 1422 1102">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.</li><li data-bbox="467 1108 1422 1144">b. Document if action is temporary or permanent.</li></ol></li><li data-bbox="418 1155 1422 1291">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.</li><li data-bbox="418 1302 1422 1375">4. Any activity that includes water production will be managed to ensure maintenance or enhancement of riparian habitat.</li><li data-bbox="418 1386 1422 1480">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.</li><li data-bbox="418 1491 1422 1858">6. For all temporary actions that may impact owls or suitable habitat:<ol data-bbox="467 1543 1422 1858" style="list-style-type: none"><li data-bbox="467 1543 1422 1680">a. If the action occurs entirely outside of the owl breeding season from <b>March 1 through August 31</b>, and leaves no permanent structure or permanent habitat disturbance, the action can proceed without an occupancy survey.</li><li data-bbox="467 1690 1422 1795">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.</li><li data-bbox="467 1801 1422 1858">c. Rehabilitate access routes created by the project through such means as raking out scars, re-vegetation, gating access points, etc.</li></ol></li><li data-bbox="418 1869 1422 1904">7. For all permanent actions that may impact owls or suitable habitat:</li></ol>

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	<p>a. Survey two consecutive years for owls according to accepted protocol prior to commencing activities.</p> <p>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).</p> <p>c. Avoid permanent structures within 0.5 mile of suitable habitat unless surveyed and not occupied.</p> <p>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.</p> <p>e. Limit disturbances to and within suitable habitat by staying on designated and/or approved routes.</p> <p>f. Limit new access routes created by the project.</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> <p>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.</p> <p><b>Exception:</b> 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.</p> <p><b>Modification:</b> 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.</p> <p><b>Waiver:</b> 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.</p>
<b>UT-S-343</b>	<p><b>CONTROLLED SURFACE USE – FOSSIL RESOURCE ASSESSMENT</b></p> <p>An assessment of fossil resources would be required on a case-by case basis, mitigating as necessary before and/or during surface disturbance.</p> <p><b>Exception:</b> The AO may grant an exception if the area has previously been inventoried and an assessment completed.</p> <p><b>Modification:</b> None</p> <p><b>Waiver:</b> None</p>

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<b>UT-S-356</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE – GREATER SAGE-GROUSE INDIRECT IMPACTS FROM NOISE</b></p> <p>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:</p> <p>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);</p> <p><b>AND</b></p> <p>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.</p> <p><b>Exception:</b> None</p> <p><b>Modification:</b> 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.</p> <p><b>Waiver:</b> None</p>
<b>UT-S-357</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE – GREATER SAGE-GROUSE INDIRECT IMPACTS FROM TALL STRUCTURES</b></p> <p>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:</p> <p>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.</p> <p><b>Exception:</b> None</p> <p><b>Modification:</b> None</p> <p><b>Waiver:</b> None</p> <p>**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.</p>
<b>UT-S-358</b>	<p style="text-align: center;"><b>AIR QUALITY AND GREENHOUSE GASES</b></p> <p>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</p>

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	<p>per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.</p> <p>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.</p> <p><b>Purpose:</b> To protect air quality and minimize greenhouse gas emissions.</p> <p><b>Exception:</b> None</p> <p><b>Modification:</b> 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.</p> <p><b>Waiver:</b> None</p>
<b>UT-S-359</b>	<p style="text-align: center;"><b>AIR QUALITY I</b></p> <p>All drilling and production operations are required to adhere to the following minimum standards:</p> <ol style="list-style-type: none"> <li>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.</li> <li>2. Stationary internal combustion engine standard of 2g NOx/bhp-hr for engines &lt;300HP and 1g NOx/bhp-hr for engines &gt;300 HP.</li> <li>3. Low bleed or no bleed pneumatic controller.</li> <li>4. Dehydrator VOC emission controls to +95 percent efficiency.</li> <li>5. Tank VOC emission controls to +95 percent efficiency equivalent to NSPS subpart 0000.</li> </ol> <p><b>Purpose:</b> To mitigate any potential impact mineral development emissions may have on regional ozone formation.</p> <p><b>Exception:</b> None</p> <p><b>Modification:</b> 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.</p> <p><b>Waiver:</b> None</p>

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	<p style="text-align: center;"><b>AIR QUALITY II</b></p> <p>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.</p> <p><b>Purpose:</b> To minimize the generation of fugitive dust.</p> <p><b>Exception:</b> None</p> <p><b>Modification:</b> 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.</p> <p><b>Waiver:</b> None</p>
<b>UT-S-362</b>	<p style="text-align: center;"><b>NO SURFACE OCCUPANCY – COLORADO AND GREEN RIVER CORRIDORS</b></p> <p>No surface-disturbing activities within the area of the Three Rivers locatable mineral withdrawal, which includes suitable Wild and Scenic River (WSR) segments.</p> <p><b>Purpose:</b> To protect riparian, wildlife, scenic, and recreational values along the major river corridors.</p> <p><b>Exception:</b> None</p> <p><b>Modification:</b> None</p> <p><b>Waiver:</b> None</p>
<b>UT-S-363</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE – IMPROVED ACCESS ROADS FOR RECREATIONAL USE IN THE CANYON RIMS SPECIAL RECREATION MANAGEMENT AREA (SRMA)</b></p> <p>The use of heavy trucks (over 20 tons) is precluded on the paved Needles Overlook Road and the Anticline Overlook Road once it is paved.</p> <p><b>Purpose:</b> To protect the integrity and public enjoyment of the Needles and Anticline Overlook Roads.</p> <p><b>Exception:</b> If there is no alternative to the use of these roads, the Authorized Officer may grant an exception if a bond is provided in sufficient amount to repair any potential damage to the roads resulting from the use of heavy trucks for mineral operations.</p> <p><b>Modification:</b> 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</p>

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	<p>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.</p> <p><b>Waiver:</b> 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.</p>
<b>UT-S-364</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE – FILMING LOCATIONS</b></p> <p>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:</p> <ul style="list-style-type: none"> <li>• Needles Overlook</li> <li>• Colorado River Corridor and Corona Arch</li> <li>• Green River Canyon</li> <li>• Kane Creek Corridor</li> <li>• Looking Glass Rock</li> <li>• View from Dead Horse Point</li> <li>• Potash Road/Shafer Basin (including Fossil Point)</li> <li>• Long Canyon</li> <li>• Highway 211 (including Newspaper Rock)</li> <li>• Highway 313</li> <li>• Mineral Bottom Road</li> <li>• Behind the Rocks Jeep Route</li> <li>• Monitor and Merrimac/Determination Towers/Mill Canyon/Bartlett Wash</li> <li>• Gemini Bridges/Bull Canyon</li> <li>• Jewell Tibbetts Arch</li> <li>• White Wash</li> </ul> <p><b>Purpose:</b> To protect the immediate foreground of high use filming locations.</p> <p><b>Exception:</b> 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.</p> <p><b>Modification:</b> The Authorized Officer may modify the stipulation if a filming location ceases to be utilized or if a new location becomes heavily used.</p> <p><b>Waiver:</b> The Authorized Officer may waive the stipulation if the film industry ceases to utilize the area for filming.</p>



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<b>UT-S-365</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE – LANDS WITH WILDERNESS CHARACTERISTICS</b></p> <p>Mineral operations are subject to the following requirements:</p> <ol style="list-style-type: none"> <li>1. Multiple wells per pad as appropriate.</li> <li>2. Well pads would be placed no closer than 2-miles apart.</li> <li>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.</li> <li>4. Limit unreclaimed surface disturbance to no more than 15 acres per well pad (including associated facilities, roads, pipelines, and utilities) following interim reclamation.</li> <li>5. Extensive interim reclamation of roadway disturbance and reclamation of well pads to minimize long-term surface disturbance.</li> <li>6. Final reclamation fully restoring the original landform. Travel routes would be restored to their original character.</li> <li>7. This stipulation would allow for geophysical operations.</li> <li>8. Compensatory mitigation outside the area of impact could be required to minimize impacts to resources.</li> </ol> <p>These requirements apply to the following lands identified by the BLM in the 2008 Resource Management Plan (RMP) as having wilderness characteristics:</p> <ul style="list-style-type: none"> <li>• Arches Adjacent</li> <li>• Behind the Rocks</li> <li>• Bridger Jack Mesa</li> <li>• Dead Horse Cliffs</li> <li>• Dome Plateau (partial)</li> <li>• Fisher Towers</li> <li>• Goldbar</li> <li>• Gooseneck</li> <li>• Hatch/Lockhart/Hart</li> <li>• Hatch Wash</li> <li>• Horsethief Point</li> <li>• Hunter Canyon</li> <li>• Indian Creek</li> <li>• Labyrinth Canyon</li> <li>• Lost Spring Canyon</li> <li>• Negro Bill Canyon</li> <li>• Shafer Canyon</li> <li>• Shay Mountain</li> <li>• Yellowbird.</li> </ul> <p><b>Purpose:</b> To minimize the amount of surface disturbance and related impacts resulting from mineral development in areas with sensitive resources.</p>

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	<p><b>Exception:</b> 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:</p> <ol style="list-style-type: none"> <li>1. If alternative placement of well pads would enable the operator to use areas that have been previously disturbed.</li> <li>2. If alternative placement of well pads would minimize the need for new road construction.</li> <li>3. If there is a demonstrated reduction in the impacts to resources.</li> <li>4. If there is a valid safety concern.</li> <li>5. 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.</li> <li>6. 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.</li> </ol> <p><b>Modification:</b> 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.</p> <p><b>Waiver:</b> 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.</p>
<b>UT-S-370</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE – PALEONTOLOGY</b></p> <p>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.</p> <p><b>Purpose:</b> To protect paleontological resources.</p> <p><b>Exception:</b> None</p>

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	<p><b>Modification:</b> 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.</p> <p><b>Waiver:</b> 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.</p>
<b>UT-S-376</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE – CANYON RIMS, LABYRINTH RIMS/GEMINI BRIDGES AND SOUTH MOAB SRMAs</b></p> <p>Mineral operations outside the area designated as NSO are subject to the following requirements:</p> <ol style="list-style-type: none"> <li>1. Multiple wells per pad as appropriate.</li> <li>2. Well pads would be placed no closer than 2-miles apart.</li> <li>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.</li> <li>4. Limit unreclaimed surface disturbance to no more than 15 acres per well pad (including associated facilities, roads, pipelines, and utilities) following interim reclamation.</li> <li>5. Extensive interim reclamation of roadway disturbance and reclamation of well pads to minimize long-term surface disturbance.</li> <li>6. Final reclamation fully restoring the original landform. Travel routes would be restored to their original character.</li> <li>7. This stipulation would allow for geophysical operations.</li> <li>8. Compensatory mitigation outside the area of impact could be required to minimize impacts to resources.</li> </ol> <p><b>Purpose:</b> To minimize the amount of surface disturbance and related impacts resulting from mineral development in areas with sensitive resources.</p> <p><b>Exception:</b> 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:</p> <ol style="list-style-type: none"> <li>1. If alternative placement of well pads would enable the operator to use areas that have been previously disturbed.</li> <li>2. If alternative placement of well pads would minimize the need for new road construction.</li> <li>3. If there is a demonstrated reduction in the impacts to resources.</li> <li>4. If there is a valid safety concern.</li> <li>5. 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.</li> <li>6. 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</li> </ol>

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	<p>placement would still require the maximum technologically feasible placement of oil and gas wells.</p> <p><b>Modification:</b> 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.</p> <p><b>Waiver:</b> 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.</p>
<b>UT-S-382</b>	<p style="text-align: center;"><b>TIMING LIMITATIONS – SALINE SOILS WITHIN THE MANCOS SHALE</b></p> <p>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.</p> <p><b>Purpose:</b> To minimize watershed damage including compaction, rutting, and topsoil loss on saline soils derived primarily from the Mancos Shale.</p> <p><b>Exception:</b> 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.</p> <p><b>Modification:</b> The Authorized Officer may modify the stipulation if it is determined that the project area is not located within saline soils.</p> <p><b>Waiver:</b> The Authorized Officer may waive the stipulation if areas mapped as saline soils are verified as not present on the entire leasehold.</p>
<b>UT-S-383</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE – SALINE SOILS</b></p> <p>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</p>

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	<p>of impact could include: 1) reclamation of non-designated roads and 2) planting and seeding in appropriate areas to improve soil condition.</p> <p><b>Purpose:</b> 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.</p> <p><b>Exception:</b> 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.</p> <p><b>Modification:</b> The Authorized Officer may modify the stipulation if it is determined that the project area is not located within saline soils.</p> <p><b>Waiver:</b> The Authorized Officer may waive the stipulation if areas mapped as saline soils are verified as not present on the entire leasehold.</p>
<b>UT-S-384</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE – STEEP SLOPES</b></p> <p>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.</p> <p><b>Purpose:</b> To minimize soil erosion, sedimentation, soil compaction, runoff and associated loss of soil productivity.</p> <p><b>Exception:</b> 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.</p> <p><b>Modification:</b> The Authorized Officer may modify the stipulation if it is determined that the project area does not contain slopes greater than 21 percent.</p> <p><b>Waiver:</b> The Authorized Officer may waive the stipulation if it is verified that steep slopes are not present on the entire leasehold.</p>
<b>UT-S-386</b>	<p style="text-align: center;"><b>NO SURFACE OCCUPANCY – WATER RESOURCES</b></p> <p>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.</p> <p><b>Purpose:</b> To protect public water reserves, 100-year floodplains, intermittent and perennial streams, rivers, springs, wetlands, riparian areas, and water wells.</p> <p><b>Exception:</b> 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.</p>

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	<p><b>Modification:</b> 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.</p> <p><b>Waiver:</b> 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.</p>
<b>UT-S-387</b>	<p style="text-align: center;"><b>NO SURFACE OCCUPANCY – EPHEMERAL STREAMS</b></p> <p>No surface occupancy allowed within 100 feet of ephemeral streams.</p> <p><b>Purpose:</b> To protect ephemeral streams.</p> <p><b>Exception:</b> 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.</p> <p><b>Modification:</b> The Authorized Officer may modify the stipulation if it is determined that the project area does not contain an ephemeral stream.</p> <p><b>Waiver:</b> The Authorized Officer may waive the stipulation if ephemeral streams are verified as not present on the entire leasehold</p>
<b>UT-S-395</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE – OLD SPANISH TRAIL – HIGH POTENTIAL SITES AND SEGMENTS</b></p> <p>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.</p> <p>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.</p> <p>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 PFFA and are not subject to this stipulation.</p> <p><b>Purpose:</b> To protect the setting along high potential sites and segments of the OSNHT.</p> <p><b>Exception:</b> The Authorized Officer may grant an exception if the proposed project is not within view of a high potential site or segment as stipulated.</p> <p><b>Modification:</b> The Authorized Officer may modify the stipulation to match any changes based on updated information.</p>

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	<p><b>Waiver:</b> 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.</p>
<b>UT-S-403</b>	<p style="text-align: center;"><b>NO SURFACE OCCUPANCY – VISUAL RESOURCES SCENIC DRIVING CORRIDORS</b></p> <p>No surface occupancy allowed within the mapped viewshed of Scenic Backways and Byways designated by the State of Utah and shall not exceed 1-mile from centerline. The Scenic Backways and Byways include Highways 128, 313, 279, and 211, as well as Needles Overlook, Anticline Overlook, and Lockhart Basin (including the Kane Creek Road).</p> <p><b>Purpose:</b> To protect high quality visual resources along State Scenic Backways and Byways.</p> <p><b>Exception:</b> The Authorized Officer may grant an exception if it could be demonstrated using visual analysis that the proposed operation would not be visible from the State Scenic corridors.</p> <p><b>Modification:</b> 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.</p> <p><b>Waiver:</b> 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.</p>
<b>UT-S-404</b>	<p style="text-align: center;"><b>NO SURFACE OCCUPANCY – VISUAL RESOURCES VRM II AREAS</b></p> <p>No surface occupancy allowed within VRM Class II areas.</p> <p><b>Purpose:</b> To protect high quality visual resources.</p> <p><b>Exception:</b> 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.</p> <p><b>Modification:</b> 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;</p>

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	<p>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.</p> <p><b>Waiver:</b> 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.</p>
<b>UT-S-407</b>	<p style="text-align: center;"><b>NO SURFACE OCCUPANCY – VISUAL RESOURCES – RIMLANDS OF THE GREEN AND COLORADO RIVERS</b></p> <p>No surface occupancy allowed within a 1-mile setback from the rims of the Colorado and Green Rivers.</p> <p><b>Purpose:</b> To protect high quality visual resources along the rims of the Green and Colorado Rivers.</p> <p><b>Exception:</b> 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.</p> <p><b>Modification:</b> 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.</p> <p><b>Waiver:</b> 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.</p>



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<b>UT-S-408</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE – AUDITORY MANAGEMENT – SOUNDSCAPE (LANDS BORDERING ARCHES AND CANYONLANDS NATIONAL PARKS)</b></p> <p>Operators are required to comply with the following within 6.1-miles (9,800 meters) of National Parks:</p> <p>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.</p> <p><b>Purpose:</b> To protect the soundscapes of the National Parks.</p> <p><b>Exception:</b> None</p> <p><b>Modification:</b> 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.</p> <p><b>Waiver:</b> 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.</p>
<b>UT-S-411</b>	<p style="text-align: center;"><b>TIMING LIMITATIONS – PRONGHORN FAWNING HABITAT</b></p> <p>No surface-disturbing activities or occupancy allowed within pronghorn fawning habitat from May 1 to June 15.</p> <p><b>Purpose:</b> To minimize stress and disturbance during critical pronghorn birthing time.</p> <p><b>Exception:</b> 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.</p> <p><b>Modification:</b> 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</p>

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	<p>outside of stipulation boundaries as crucial fawning habitat and needs to be protected.</p> <p><b>Waiver:</b> 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.</p>
<b>UT-S-412</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE – DESERT BIGHORN SHEEP LAMBING AND RUTTING HABITAT</b></p> <p>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:</p> <ol style="list-style-type: none"> <li>1. Geophysical exploration would be allowed throughout the lambing and rutting habitat (except for source points in Mineral, Hell Roaring, Spring, and Ten 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.</li> <li>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.</li> <li>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.</li> </ol> <p><b>Purpose:</b> To minimize disturbance within desert bighorn lambing and rutting habitat.</p> <p><b>Exception:</b> 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.</p> <p><b>Modification:</b> 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.</p> <p><b>Waiver:</b> 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.</p>

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<b>UT-S-413</b>	<p style="text-align: center;"><b>CONTROLLED SURFACE USE – DESERT BIGHORN SHEEP AND DEER AND ELK CRUCIAL WINTER HABITAT</b></p> <p>Mineral operations are subject to the following requirements:</p> <ol style="list-style-type: none"><li>1. Multiple wells per pad as appropriate.</li><li>2. Well pads would be placed no closer than 2-miles apart.</li><li>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.</li><li>4. Limit unreclaimed surface disturbance to no more than 15 acres per well pad (including associated facilities, roads, pipelines, and utilities) following interim reclamation.</li><li>5. Extensive interim reclamation of roadway disturbance and reclamation of well pads to minimize long-term surface disturbance.</li><li>6. Final reclamation fully restoring the original landform. Travel routes would be restored to their original character.</li><li>7. This stipulation would allow for geophysical operations.</li><li>8. Compensatory mitigation outside the area of impact could be required to minimize impacts to resources.</li></ol> <p><b>Purpose:</b> To minimize the amount of surface disturbance and related impacts resulting from mineral development in areas with sensitive resources</p> <p><b>Exception:</b> 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:</p> <ol style="list-style-type: none"><li>1. If alternative placement of well pads would enable the operator to use areas that have been previously disturbed.</li><li>2. If alternative placement of well pads would minimize the need for new road construction.</li><li>3. If there is a demonstrated reduction in the impacts to resources.</li><li>4. If there is a valid safety concern.</li><li>5. 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.</li><li>6. 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.</li></ol> <p><b>Modification:</b> 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</p>

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	<p>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.</p> <p><b>Waiver:</b> 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.</p>
<b>UT-S-414</b>	<p style="text-align: center;"><b>TIMING LIMITAITON – DEER AND ELK CRUCIAL WINTER HABITAT</b></p> <p>No surface-disturbing activities allowed within deer and elk crucial winter habitat from November 15 to April 15. This stipulation does not apply to the maintenance and operation of existing and ongoing facilities.</p> <p><b>Purpose:</b> To minimize stress and disturbance to deer and elk during critical winter months.</p> <p><b>Exception:</b> 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 it is determined the habitat is not being utilized during the winter period for any given year.</p> <p><b>Modification:</b> The Authorized Officer may modify the stipulation if 1) a portion of the area is not being used as winter habitat by deer/elk; or 2) habitat is being utilized outside of stipulation boundaries as crucial winter habitat and needs to be protected; or 3) the migration patterns have changed, causing a difference in the season of use.</p> <p><b>Waiver:</b> The Authorized Officer may waive the stipulation if the crucial winter habitat is unsuitable or unoccupied during winter months by deer/elk and there is no reasonable likelihood of future winter range use.</p>

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<b>UT-LN-02</b>	<p style="text-align: center;"><b>CRUCIAL WINTER MULE DEER AND ELK HABITAT</b></p> <p>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.</p>
<b>UT-LN-03</b>	<p style="text-align: center;"><b>CRUCIAL MULE DEER AND ELK WINTER HABITAT</b></p> <p>The lessee/operator is given notice that the area has been identified as containing crucial mule deer and elk winter habitat. Exploration, drilling and other development activities may be restricted from December 1 through April 15. Modifications including seasonal restrictions may be required to the Surface Use Plan of Operations in order to protect the winter habitat. This limitation does not apply to operation and maintenance of producing wells.</p>
<b>UT-LN-04</b>	<p style="text-align: center;"><b>CRUCIAL MULE DEER AND ELK WINTER HABITAT</b></p> <p>The lessee/operator has been given notice that the area has been identified as containing crucial deer winter range. Exploration, drilling and other development activities would be restricted from November 15 through April 15. Modifications including seasonal restrictions may be required to the Surface Use Plan of Operations in order to protect the winter range. This limitation does not apply to operation and maintenance of producing wells.</p>
<b>UT-LN-08</b>	<p style="text-align: center;"><b>CRUCIAL ELK CALVING AND DEER FAWNING HABITAT</b></p> <p>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 July 5 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.</p>
<b>UT-LN-09</b>	<p style="text-align: center;"><b>CRUCIAL ELK CALVING AND DEER FAWNING HABITAT</b></p> <p>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.</p>
<b>UT-LN-11</b>	<p style="text-align: center;"><b>CRUCIAL ELK CALVING AND DEER FAWNING HABITAT</b></p> <p>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.</p>

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<b>UT-LN-16</b>	<p style="text-align: center;"><b>PRONGHORN FAWNING HABITAT</b></p> <p>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.</p>
<b>UT-LN-25</b>	<p style="text-align: center;"><b>WHITE-TAILED AND GUNNISON PRAIRIE DOG</b></p> <p>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.</p>
<b>UT-LN-37</b>	<p style="text-align: center;"><b>BALD EAGLE HABITAT</b></p> <p>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.</p>
<b>UT-LN-40</b>	<p style="text-align: center;"><b>GOLDEN EAGLE HABITAT</b></p> <p>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.</p>
<b>UT-LN-44</b>	<p style="text-align: center;"><b>RAPTORS</b></p> <p>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</p>

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	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.
<b>UT-LN-45</b>	<p style="text-align: center;"><b>MIGRATORY BIRDS</b></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 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.</p>
<b>UT-LN-49</b>	<p style="text-align: center;"><b>UTAH SENSITIVE SPECIES</b></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.</p>
<b>UT-LN-50</b>	<p style="text-align: center;"><b>HABITAT RESTORATION</b></p> <p>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.</p>
<b>UT-LN-51</b>	<p style="text-align: center;"><b>SPECIAL STATUS PLANTS: NOT FEDERALLY LISTED</b></p> <p>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.</p>
<b>UT-LN-52</b>	<p style="text-align: center;"><b>NOXIOUS WEEDS</b></p> <p>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.</p>

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<b>UT-LN-53</b>	<p style="text-align: center;"><b>RIPARIAN AREAS</b></p> <p>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.</p>
<b>UT-LN-57</b>	<p style="text-align: center;"><b>PUBLIC WATER RESERVE</b></p> <p>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.</p>
<b>UT-LN-60</b>	<p style="text-align: center;"><b>STEEP SLOPES</b></p> <p>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.</p>
<b>UT-LN-61</b>	<p style="text-align: center;"><b>SEVERE SOIL EROSION &amp; STEEP SLOPES</b></p> <p>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.</p>
<b>UT-LN-65</b>	<p style="text-align: center;"><b>OLD SPANISH TRAIL</b></p> <p>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 to protect the historic integrity of the Trail, its resources, its values – such as landscape view sheds, and outdoor recreational opportunities associated with the foregoing.</p>
<b>UT-LN-67</b>	<p style="text-align: center;"><b>HISTORICAL AND CULTURAL RESOURCE VALUES</b></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>



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<b>UT-LN-68</b>	<p style="text-align: center;"><b>NOTIFICATION &amp; CONSULTATION REGARDING CULTURAL RESOURCES</b></p> <p>The lease area may now or hereafter be found to contain historic properties and/or resources protected under the National Historic Preservation Act (NHPA), the Archaeological Resources Protections Act (ARPA), the Native American Graves Protection and Repatriation Act (NAGPRA), the American Indian Religious Freedom Act (AIRFA), other statues and Executive Order 13007, and which may be of concern to Native American tribes, interested parties, and the State Historic Preservation Officer (SHPO). BLM will not approve any ground disturbing activities as part of future lease operations until it completes applicable requirements of the National Historic Preservation Act (NHPA), including the completion of any required procedure for notification and consultation with appropriate tribe(s) and/or the SHPO. BLM may require modifications to exploration and development proposals to further its conservation and management objectives on BLM-approved activities that are determine to affect or impact historic or cultural properties and/or resources.</p>
<b>UT-LN-69</b>	<p style="text-align: center;"><b>HIGH POTENTIAL FOR CULTURAL RESOURCES</b></p> <p>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.</p>
<b>UT-LN-70</b>	<p style="text-align: center;"><b>HIGH POTENTIAL FOR CULTURAL RESOURCE OCCURRENCE</b></p> <p>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.</p>
<b>UT-LN-72</b>	<p style="text-align: center;"><b>HIGH POTENTIAL PALEONTOLOGICAL RESOURCES</b></p> <p>The lessee/operator is given notice that lands in this lease have been identified as having high potential for paleontological resources. Surveys will be required and 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. In addition, monitoring may be required during surface disturbing activities.</p>
<b>UT-LN-83</b>	<p style="text-align: center;"><b>SITE RIGHT-OF-WAY</b></p> <p>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</p>

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	required or other appropriate mitigation as deemed necessary by the BLM Authorized Officer in order to protect the valid existing rights.
<b>UT-LN-90</b>	<p style="text-align: center;"><b>GRAHAM’S BEARDTONGUE (<i>PENSTEMON GRAHAMII</i>)</b></p> <p>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:</p> <ol style="list-style-type: none"> <li>1. Pre-project habitat assessments will be completed across 100% of the project disturbance area within potential habitat<sup>1</sup> prior to any ground disturbing activities to determine if suitable Graham’s beardtongue habitat is present.</li> <li>2. Within suitable habitat<sup>3</sup>, site inventories will be conducted to determine occupancy. Inventories:             <ol style="list-style-type: none"> <li>a. Must be conducted by qualified individual(s) and according to BLM and Service accepted survey protocols,</li> <li>b. Will be conducted in suitable and occupied habitat<sup>4</sup> 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<sup>th</sup> to May 20<sup>th</sup> 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),</li> <li>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,</li> <li>d. Will include, but not be limited to, plant species lists and habitat characteristics, and</li> <li>e. Will be valid until April 15<sup>th</sup> the following year.</li> </ol> </li> <li>3. Design project infrastructure to minimize impacts within suitable habitat<sup>2</sup>:             <ol style="list-style-type: none"> <li>a. Reduce well pad size to the minimum needed, without compromising safety,</li> <li>b. Limit new access routes created by the project,</li> <li>c. Roads and utilities should share common right-of-ways where possible,</li> <li>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,</li> <li>e. Place signing to limit off-road travel in sensitive areas, and</li> <li>f. Stay on designated routes and other cleared/approved areas.</li> </ol> </li> <li>4. Within occupied habitat<sup>4</sup>, project infrastructure will be designed to avoid direct disturbance and minimize indirect impacts to populations and to individual plants:</li> </ol>

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- 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 15<sup>th</sup> to May 20<sup>th</sup> (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 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 15<sup>th</sup> through May 30<sup>th</sup> 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.

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<b>UT-LN-96</b>	<p style="text-align: center;"><b>AIR QUALITY MITIGATION MEASURES</b></p> <p>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.</p> <ul style="list-style-type: none"> <li>• All internal combustion equipment would be kept in good working order.</li> <li>• Water or other approved dust suppressants would be used at construction sites and along roads, as determined appropriate by the Authorized Officer.</li> <li>• Open burning of garbage or refuse would not occur at well sites or other facilities.</li> <li>• Drill rigs would be equipped with Tier II or better diesel engines.</li> <li>• 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.</li> <li>• Low bleed or no bleed pneumatics would be installed on separator dump valves and other controllers.</li> <li>• During completion, flaring would be limited as much as possible. Production equipment and gathering lines would be installed as soon as possible.</li> <li>• Well site telemetry would be utilized as feasible for production operations.</li> <li>• Stationary internal combustion engine would comply with the following standards: 2g NOx/bhp-hr for engines &lt;300HP; and 1g NOx/bhp-hr for engines &gt;300HP.</li> </ul> <p>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.</p>
<b>UT-LN-99</b>	<p style="text-align: center;"><b>REGIONAL OZONE FORMATION CONTROLS</b></p> <p>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:</p> <ul style="list-style-type: none"> <li>• Tier II or better drilling rig engines</li> <li>• Stationary internal combustion engine standard of 2g NOx/bhp-hr for engines &lt;300HP and 1g NOx/bhp-hr for engines &gt;300HP</li> </ul>

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	<ul style="list-style-type: none"> <li>• Low bleed or no bleed pneumatic pump valves</li> <li>• Dehydrator VOC emission controls to +95% efficiency</li> <li>• Tank VOC emission controls to +95% efficiency</li> </ul>
<b>UT-LN-100</b>	<p style="text-align: center;"><b>FRAGILE SOILS – MANCOS SHALE</b></p> <p>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 <b>December 1 to May 31</b> 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.</p>
<b>UT-LN-102</b>	<p style="text-align: center;"><b>AIR QUALITY ANALYSIS</b></p> <p>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.</p>
<b>UT-LN-106</b>	<p style="text-align: center;"><b>SPECIAL RECREATION MANAGEMENT AREA</b></p> <p>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 prepared for the area to protect sensitive resources from surface disturbing activities in accordance with the Vernal RMP.</p>
<b>UT-LN-107</b>	<p style="text-align: center;"><b>BALD EAGLE</b></p> <p>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 <u>temporary</u> action is completed prior to the following breeding or roosting</p>

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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 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

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	additional measures will be developed and implemented in coordination with the U.S. Fish and Wildlife Service.
<b>UT-LN-113</b>	<p style="text-align: center;"><b>WESTERN YELLOW-BILLED CUCKOO</b></p> <p>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:</p> <ol style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>3. For all temporary actions that may impact cuckoo or suitable habitat:             <ol style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>c. Eliminate access routes created by the project through such means as raking out scars, revegetation, gating access points, etc.</li> </ol> </li> <li>4. For all permanent actions that may impact cuckoo or suitable habitat:             <ol style="list-style-type: none"> <li>a. Protocol level surveys by permitted individuals will be conducted prior to commencing activities.</li> <li>b. If cuckoos are detected, no activity will occur within 0.25 mile of occupied habitat.</li> <li>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).</li> </ol> </li> </ol>

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	<p>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.</p> <p>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.</p> <p>6. Water produced as a by-product of drilling or pumping will be managed to ensure maintenance or enhancement of riparian habitat.</p> <p>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.</p> <p>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.</p> <p>9. Re-vegetate with native species all areas of surface disturbance within riparian areas and/or 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>
<b>UT-LN-120</b>	<b>ABANDONED MINE WORKINGS</b>
	Abandoned Mine Working may be present in this lease parcel.
<b>UT-LN-125</b>	<b>LIGHT AND SOUND – SENSITIVE RESOURCES</b>
	<p>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.</p> <p>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</p>



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	<p>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.</p>
<b>UT-LN-126</b>	<p style="text-align: center;"><b>NAVAJO SEDGE</b></p> <p>In areas that contain habitat for Navajo sedge, actions will be avoided or restricted if that area is known or suspected to be habitat for Navajo sedge and the action may cause stress or disturbance to the plant.</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> <ol style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>3. Project activities must be designed to avoid direct disturbance to populations and to individual plants:             <ol style="list-style-type: none"> <li>a. Designs will avoid concentrating water flows or sediments into plant occupied habitat.</li> <li>b. Construction will occur down slope of plants and populations where feasible; if well pads and roads must be sited upslope, buffers of 100 feet minimum between surface disturbances and plants and populations will be incorporated.</li> <li>c. Where populations occur within 200 ft. of well pads, establish a buffer or fence the individuals or groups of individuals during and post-construction.</li> <li>d. Areas for avoidance will be visually identifiable in the field, e.g., flagging, temporary fencing, rebar, etc.</li> <li>e. For surface pipelines, use a 10 foot buffer from any plant locations:</li> <li>f. If on a slope, use stabilizing construction techniques to ensure the pipelines don't move towards the population.</li> </ol> </li> </ol>

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	<ol style="list-style-type: none"> <li>4. For riparian/wetland-associated species, e.g. Navajo Sedge, avoid loss or disturbance of riparian habitats: a. Ensure that water extraction or disposal practices do not result in change of hydrologic regime.</li> <li>5. Limit disturbances to and within suitable habitat by staying on designated routes.</li> <li>6. Limit new access routes created by the project.</li> <li>7. Place signing to limit ATV travel in sensitive areas.</li> <li>8. Implement dust abatement practices near occupied plant habitat.</li> <li>9. All disturbed areas will be re-vegetated with native species comprised of species indigenous to the area.</li> <li>10. Post construction monitoring for invasive species will be required.</li> <li>11. 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.</li> </ol> <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>
<b>UT-LN-128</b>	<p><b>FLOODPLAIN MANAGEMENT</b></p> <p>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.</p>
<b>UT-LN-134</b>	<p style="text-align: center;"><b>GRAHAM’S BEARDTONGUE (<i>PENSTEMON GRAHAMII</i>) &amp; WHITE RIVER BEARDTONGUE (<i>P. SCARIOSUS VAR. ALBIFLUVIS</i>) CONSERVATION AREA</b></p> <p>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 var. 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.</p>
<b>UT-LN-136</b>	<p><b>AIR QUALITY</b></p> <p>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</p>

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	determinations, and/or emission inventory development. These analyses may result in the imposition of additional project-specific air quality control measures.
<b>UT-LN-137</b>	<p style="text-align: center;"><b>CULTURAL RESOURCES I</b></p> <p>The lessee/operator is given notice that measures to mitigate the potential impacts to TCPs or cultural plants identified through consultation may be required. 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.</p>
<b>UT-LN-138</b>	<p style="text-align: center;"><b>CULTURAL RESOURCES II</b></p> <p>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.</p>
<b>UT-LN-139</b>	<p style="text-align: center;"><b>CULTURAL RESOURCES – HIGH POTENTIAL FOR CULTURAL SITES</b></p> <p>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.</p>
<b>UT-LN-140</b>	<p style="text-align: center;"><b>OLD SPANISH NATIONAL HISTORIC TRAIL</b></p> <p>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.</p>
<b>UT-LN-141</b>	<p style="text-align: center;"><b>BALD EAGLES – NEST SITES AND WINTER ROOST AREAS</b></p> <p>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</p>

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	<p>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:</p> <ol style="list-style-type: none"> <li>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.</li> <li>2. Lease activities would require monitoring throughout the duration of the project.</li> <li>3. To ensure desired results are being achieved, minimization measures would be evaluated.</li> <li>4. Water production would be managed to ensure maintenance or enhancement of riparian habitat.</li> <li>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.</li> <li>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.</li> <li>7. No permanent infrastructure would be placed within 1.0-mile of nest sites.</li> <li>8. No permanent infrastructure would be placed within 0.5-miles of winter roost areas.</li> <li>9. Remove big game carrion to 100 feet from on lease roadways occurring within bald eagle foraging range.</li> <li>10. Avoid loss or disturbance to large cottonwood gallery riparian habitats.</li> <li>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.</li> <li>12. All areas of surface disturbance within riparian areas and/or adjacent uplands should be re-vegetated with native species.</li> </ol> <p>Additional measures may also be employed to avoid or minimize effects to the species between the lease stage and lease development stage.</p>
<b>UT-LN-142</b>	<p style="text-align: center;"><b>GOLDEN EAGLE – NEST SITES AND TERRITORIES</b></p> <p>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</p>

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	<p>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:</p> <ol style="list-style-type: none"> <li>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.</li> <li>2. Lease activities would require monitoring throughout the duration of the project.</li> <li>3. To ensure desired results are being achieved, minimization measures would be evaluated.</li> <li>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.</li> <li>5. No permanent infrastructure would be placed within 0.5-miles of nest sites.</li> <li>6. Remove big game carrion to 100 feet from on-lease roadways occurring within golden eagle foraging range.</li> <li>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.</li> </ol> <p>Additional measures may also be employed to avoid or minimize effects to the species between the lease stage and lease development stage.</p>
<b>UT-LN-143</b>	<p style="text-align: center;"><b>RAPTORS</b></p> <p>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</p>

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	<p>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.</p>
<b>UT-LN-144</b>	<p style="text-align: center;"><b>MIGRATORY BIRDS</b></p> <p>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 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.</p>
<b>UT-LN-145</b>	<p style="text-align: center;"><b>FERRUGINOUS HAWK AND BURROWING OWL HABITAT</b></p> <p>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.</p>
<b>UT-LN-146</b>	<p style="text-align: center;"><b>WHITE-TAILED PRAIRIE DOG/GUNNISON PRAIRIE DOG HABITAT</b></p> <p>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.</p>
<b>UT-LN-147</b>	<p style="text-align: center;"><b>KIT FOX HABITAT</b></p> <p>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.</p>
<b>UT-LN-156</b>	<p style="text-align: center;"><b>POLLINATORS AND POLLINATOR HABITAT</b></p> <p>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 for Federal Lands (2015), the following avoidance, minimization, and mitigation measures would apply to this parcel:</p> <ol style="list-style-type: none"> <li>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.</li> </ol>

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	<ol style="list-style-type: none"> <li>2. Utilize existing well pads where feasible.</li> <li>3. Avoid disturbance to native milkweed patches within Monarch migration routes to protect Monarch butterfly habitat.</li> <li>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.</li> <li>5. Minimize the use of pesticides that negatively impact pollinators.</li> <li>6. During revegetation treatments:               <ol style="list-style-type: none"> <li>a. Use minimum till drills where feasible.</li> <li>b. Include pollinator-friendly site-appropriate native plant seeds or seedlings in seed mixes.</li> <li>c. Where possible, increase the cover and diversity of essential habitat components for native pollinators by:                   <ul style="list-style-type: none"> <li>▪ Using site-appropriate milkweed seeds or seedlings within Monarch migration routes through priority sage-grouse habitat.</li> <li>▪ Using seed mixes with annual and short-lived perennial native forbs that will bloom the first year and provide forage for pollinators.</li> <li>▪ 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.</li> <li>▪ Seeding forbs in separate rows from grasses to avoid competition during establishment.</li> <li>▪ Avoiding seeding non-native forbs and grasses that establish early and out compete slower-growing natives.</li> </ul> </li> </ol> </li> </ol>
<b>T&amp;E-02</b>	<p style="text-align: center;"><b>BLACK-FOOTED FERRET</b></p> <p>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 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 <i>Cooperative Plan for the Reintroduction and Management of Black-Footed Ferrets in Coyote Basin, Uintah County, Utah</i> 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.</p>
<b>T&amp;E-03</b>	<p style="text-align: center;"><b>ENDANGERED FISH OF THE UPPER COLORADO RIVER DRAINAGE BASIN</b></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</p>

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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.
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



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	<p>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.</p>
<b>T&amp;E-05</b>	<p style="text-align: center;"><b>LISTED PLANT SPECIES</b></p> <p>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</p> <ol style="list-style-type: none"> <li>1. Site inventories:             <ol style="list-style-type: none"> <li>a. Must be conducted to determine habitat suitability,</li> <li>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,</li> <li>c. Documentation should include, but not be limited to individual plant locations and suitable habitat distributions, and</li> <li>d. All surveys must be conducted by qualified individuals.</li> </ol> </li> <li>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.</li> <li>3. Project activities must be designed to avoid direct disturbance to populations and to individual plants:             <ol style="list-style-type: none"> <li>a. Designs will avoid concentrating water flows or sediments into plant occupied habitat.</li> <li>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.</li> <li>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.</li> <li>d. Areas for avoidance will be visually identifiable in the field, e.g., flagging, temporary fencing, rebar, etc.</li> <li>e. For surface pipelines, use a 10 foot buffer from any plant locations:</li> <li>f. If on a slope, use stabilizing construction techniques to ensure the pipelines don't move towards the population.</li> </ol> </li> <li>4. For riparian/wetland-associated species, e.g. Ute ladies-tresses, avoid loss or disturbance of riparian habitats.</li> </ol>

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	<ol style="list-style-type: none"> <li>5. Ensure that water extraction or disposal practices do not result in change of hydrologic regime.</li> <li>6. Limit disturbances to and within suitable habitat by staying on designated routes.</li> <li>7. Limit new access routes created by the project.</li> <li>8. Place signing to limit ATV travel in sensitive areas.</li> <li>9. Implement dust abatement practices near occupied plant habitat.</li> <li>10. All disturbed areas will be re-vegetated with native species comprised of species indigenous to the area.</li> <li>11. Post construction monitoring for invasive species will be required.</li> <li>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.</li> <li>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.</li> </ol> <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 Endangered Species Act.</p>
<b>T&amp;E-06</b>	<p style="text-align: center;"><b>MEXICAN SPOTTED OWL</b></p> <p>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.</p> <p>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.</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,</p>

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Section 7 consultation at the permit stage. Current avoidance and minimization measures include the following:

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

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	<p>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.</p> <ul style="list-style-type: none"> <li>e. Limit disturbances to and within suitable habitat by staying on approved routes.</li> <li>f. Limit new access routes created by the project.</li> </ul> <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 Endangered Species Act.</p>
<b>T&amp;E-07</b>	<p style="text-align: center;"><b>SOUTHWESTERN WILLOW FLYCATCHER</b></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. Current avoidance and minimization measures include the following:</p> <ol style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>3. Water production will be managed to ensure maintenance or enhancement of riparian habitat.</li> <li>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.</li> <li>5. Drilling activities will maintain a 300 ft. buffer from suitable riparian habitat year long.</li> </ol>

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	<p>6. Drilling activities within 0.25 mile of occupied breeding habitat will not occur during the breeding season of May 1 to August 15.</p> <p>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.</p> <p>8. Re-vegetate with native species all areas of surface disturbance within riparian areas and/or 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>
<b>T&amp;E-11</b>	<p style="text-align: center;"><b>CALIFORNIA CONDOR</b></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. Current avoidance and minimization measures include the following:</p> <ol style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>3. Temporary activities within 1.0 mile of nest sites will not occur during the breeding season.</li> </ol>

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	<p>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.</p> <p>5. No permanent infrastructure will be placed within 1.0 mile of nest sites.</p> <p>6. No permanent infrastructure will be placed within 0.5 miles of established roosting sites or areas.</p> <p>7. Remove big game carrion 100 feet from lease roadways occurring within foraging range.</p> <p>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.</p> <p>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.</p> <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>
<b>T&amp;E-12</b>	<p style="text-align: center;"><b>PARIETTE CACTUS (<i>SCLEROCACTUS BREVISPINUS</i>) AND UINTA BASIN HOOKLESS CACTUS [<i>SCLEROCACTUS GLAUCUS (BREVISPINUS AND WETLANDICUS)</i>]</b></p> <p>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.</p> <p>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</p>

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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 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 15<sup>th</sup> to June 30<sup>th</sup>, 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 15<sup>th</sup> 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 habitat<sup>2</sup>:
  - 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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	<p style="text-align: center;">disturbance caps (no further disturbance in Core 1 Areas and a 5% disturbance cap in Core 2 Areas).</p> <p>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.</p>
<b>T&amp;E-19</b>	<p style="text-align: center;"><b>JONES CYCLADENIA (<i>CYCLADENIA HYMILIS VAR JONESII</i>)</b></p> <p>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: <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 Jones Cycladenia; habitat descriptions can be found in Federal Register Notice and species recovery plan links at <a href="http://www.fws.gov/endangered/wildlife.html">http://www.fws.gov/endangered/wildlife.html</a>. <i>Occupied habitat</i> 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:</p> <ol style="list-style-type: none"> <li>1. Pre-project habitat assessments will be completed across 100% of the project disturbance area within potential habitat<sup>1</sup> prior to any ground disturbing activities (including ATV use) to determine if suitable Jones Cycladenia habitat is present.</li> <li>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"> <li>a. Must be conducted by qualified individuals(s) and according to BLM and Service accept survey protocols,</li> <li>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<sup>th</sup> to June 5<sup>th</sup>, however, surveyors should verify that the plant is flowering by contacting a BLM or FWS</li> </ol> </li> </ol>

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	<p>botanist or demonstrating that the nearest known population is in flower),</p> <ul style="list-style-type: none"> <li>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,</li> <li>d. Will include, but not be limited to, plant species lists and habitat characteristics, and</li> <li>e. Will be valid until April 15<sup>th</sup> the following year.</li> </ul> <p>3. Design project infrastructure to minimize impacts within suitable habitat:</p> <ul style="list-style-type: none"> <li>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,</li> <li>b. Reduce well pad size to the minimum needed, without compromising safety,</li> <li>c. Where technically and economically feasible, use directional drilling or multiple wells from the same pad,</li> <li>d. Limit new access routes created by the project,</li> <li>e. Roads and utilities should share common right-of-ways where possible,</li> <li>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,</li> <li>g. Place signing to limit off-road travel in sensitive areas, and</li> <li>h. Stay on designated routes and other cleared/approved areas,</li> <li>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.</li> </ul> <p>4. Within occupied habitat, project infrastructure will be designed to avoid direct disturbance and minimize indirect impacts to populations and to individual plants:</p> <ul style="list-style-type: none"> <li>a. Follow the above recommendations (3.) for project design within suitable habitats,</li> <li>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,</li> <li>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,</li> <li>d. Roads will be graveled with occupied habitat; the operator is encouraged to apply water for dust abatement to such areas from April 15<sup>th</sup> to June 5<sup>th</sup> (flowering period); dust abatement applications will be comprised of water only,</li> </ul>

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	<p>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,</p> <p>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,</p> <p>g. Construction activities will not occur from April 15<sup>th</sup> through June 5<sup>th</sup> within occupied habitat,</p> <p>h. Before and during construction, areas for avoidance should be visually identifiable in the field, e.g., flagging temporary fencing, rebar, etc.,</p> <p>i. Place produced oil, water, or condensate tanks in centralized locations, away from occupied habitat, and</p> <p>j. Minimize the disturbed area of producing well locations through interim and final reclamation. Reclaim well pads following drilling to the smallest area possible.</p> <p>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.</p> <p>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.</p> <p>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>
<b>T&amp;E-20</b>	<p style="text-align: center;"><b>CLAY REED - MUSTARD (<i>SCHOENCRAMBE ARGILLACEA</i>)</b></p> <p>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:</p>

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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 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 1<sup>st</sup> to June 5<sup>th</sup>, 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

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- e. Will be valid until May 1<sup>st</sup> the following year.
- 3. Design project infrastructure to minimize impacts within suitable habitat<sup>2</sup>:
  - 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. 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 habitat<sup>3</sup>, 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 1<sup>st</sup> to June 5<sup>th</sup> (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

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	<p>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,</p> <ul style="list-style-type: none"> <li>h. Construction activities will not occur from May 1<sup>st</sup> through June 5<sup>th</sup> within occupied habitat,</li> <li>i. Before and during construction, areas for avoidance should be visually identifiable in the field, e.g., flagging, temporary fencing, rebar, etc.,</li> <li>j. Where technically and economically feasible, use directional drilling or multiple wells from the same pad,</li> <li>k. Place produced oil, water, or condensate tanks in centralized locations, away from occupied habitat, and</li> <li>l. Minimize the disturbed area of producing well locations through interim and final reclamation. Reclaim well pads following drilling to the smallest area possible.</li> </ul> <p>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.</p> <p>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.</p> <p>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>
<b>T&amp;E-21</b>	<p style="text-align: center;"><b>SHRUBBY REED - MUSTARD (<i>SCHOENOCRAMBE SUFFRUTESCENS</i>)</b></p> <p>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.</p> <p>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</p>

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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; 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 15<sup>th</sup> to August 1<sup>st</sup>, 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 15<sup>th</sup> 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.

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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 15<sup>th</sup> to May 30<sup>th</sup> (flowering period); dust abatement applications will be comprised of water only,
  - 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 15<sup>th</sup> through May 30<sup>th</sup> 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.



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	<p>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>
<b>T&amp;E-22</b>	<p style="text-align: center;"><b>UTE LADIES’-TRESSES (<i>SPIRANTHES DILUVIALIS</i>)</b></p> <p>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 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 &lt;<a href="http://www.fws.gov/endangered/wildlife.html">http://www.fws.gov/endangered/wildlife.html</a>&gt;. 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:</p> <ol style="list-style-type: none"> <li>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.</li> <li>2. Within suitable habitat, site inventories will be conducted to determine occupancy. Inventories:             <ol style="list-style-type: none"> <li>a. Must be conducted by qualified individual(s) and according to BLM and USFWS accepted survey protocols,</li> <li>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,</li> <li>c. Will be conducted prior to initiation of project activities and within</li> </ol> </li> </ol>

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- the same growing season, at a time when the plant can be detected, and during appropriate flowering periods (usually August 1<sup>st</sup> and August 31<sup>st</sup> 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 1<sup>st</sup> 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 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

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	<p>visually identifiable in the field (e.g., flagging, temporary fencing, rebar, etc.),</p> <ol style="list-style-type: none"> <li>e. Where technically and economically feasible, use directional drilling or multiple wells from the same pad,</li> <li>f. Designs will avoid altering site hydrology and concentrating water flows or sediments into occupied habitat,</li> <li>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</li> <li>h. Minimize the disturbed area of producing well locations through interim and final reclamation. Reclaim well pads following drilling to the smallest area possible.</li> </ol> <p>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 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.</p> <p>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.</p> <p>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.</p>
<b>T&amp;E-23</b>	<p style="text-align: center;"><b>COLORADO RIVER ENDANGERED FISH</b></p> <p>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:</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• To ensure desired results are being achieved, minimization measures would be evaluated and, if necessary, Section 7 consultation reinitiated.</li> </ul>

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- 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.
- 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:**

1. 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.
2. If the pump head is located in the river channel the following stipulations apply:
  - a. Do not situate the pump in a low-flow or no-flow area, as these habitats tend to concentrate larval fishes.
  - b. Limit the amount of pumping, to the greatest extent possible, during that period of the year when larval fish may be present (see above).

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	<p>c. 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.</p> <p>3. Screen all pump intakes with 3/32” mesh material.</p> <p>4. 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).</p> <p>5. 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:</p> <p><b>Northeastern Region</b> 152 East 100 North, Vernal, UT 84078 Phone: 435-781-9453</p> <p><b>Southeastern Region</b> 475 West Price River Drive, Suite C, Price, UT 84501 Phone: 435-636-0260</p>
<b>T&amp;E-25</b>	<p style="text-align: center;"><b>MEXICAN SPOTTED OWL</b></p> <p>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 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:</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• 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</li> </ul>

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	<p>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.</p> <p>For all temporary actions that may impact owls or suitable habitat:</p> <ol style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>3. Rehabilitate access routes created by the project through, such means as raking out scars, re-vegetation, gating access points, etc.</li> </ol> <p>For all permanent actions that may impact owls or suitable habitat:</p> <ol style="list-style-type: none"> <li>1. Survey two consecutive years for owls, according to accepted protocol prior to commencing activities.</li> <li>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).</li> <li>3. Avoid permanent structures within 0.5-mile of suitable habitat unless surveyed and not occupied.</li> <li>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 noise does not encroach upon a 0.5-mile buffer for suitable habitat, including canyon rims.</li> <li>5. Limit disturbances to and within suitable habitat by staying on designated and/or approved routes.</li> <li>6. Limit new access routes created by the project.</li> <li>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.</li> </ol>
<b>T&amp;E-26</b>	<p style="text-align: center;"><b>SOUTHWESTERN WILLOW FLYCATCHER HABITAT – RIPARIAN AREAS</b></p> <p>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</p>

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	<p>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:</p> <ol style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>3. Water production would be managed to ensure maintenance or enhancement of riparian habitat.</li> <li>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.</li> <li>5. Activities would maintain a 330 feet buffer from suitable riparian habitat year long.</li> <li>6. Activities within 0.25-mile of occupied breeding habitat would not occur during the breeding season of April 15 to August 15.</li> <li>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.</li> <li>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.</li> <li>9. Re-vegetate with native species all areas of surface disturbance within riparian areas and/or adjacent land.</li> <li>10. Avoid loss or disturbance of riparian habitats.</li> </ol> <p>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.</p>
<b>T&amp;E-27</b>	<p style="text-align: center;"><b>YELLOW-BILLED CUCKOO</b></p> <p>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</p>

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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:
  - 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.



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	<p>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.</p> <p>6. Water produced as by-product of drilling or pumping will be managed to ensure maintenance or enhancement of riparian habitat.</p> <p>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.</p> <p>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</p> <p>9. Re-vegetate with native species all areas of surface disturbance within riparian areas and/or 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>
<b>T&amp;E-28</b>	<p style="text-align: center;"><b>CALIFORNIA CONDOR – POTENTIAL HABITAT</b></p> <p>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).</p> <p>Current avoidance and minimization measures include the following:</p> <ol style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>3. All workers will be informed about potential condor presence.</li> </ol>

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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 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

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	measures would be developed and implemented in consultation with the USFWS to ensure continued compliance with the ESA.
<b>T&amp;E-29</b>	<p style="text-align: center;"><b>JONES CYCLADENIA – POTENTIAL, SUITABLE AND OCCUPIED HABITAT</b></p> <p>The lessee/operator is given notice that the lands located in this parcel contain potential habitat for Jones cycladenia.</p> <p>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: <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 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 &lt;<a href="http://www.fws.gov/endangered/species/">http://www.fws.gov/endangered/species/</a>&gt;. <i>Occupied habitat</i> 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:</p> <ol style="list-style-type: none"> <li>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.</li> <li>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:             <ol style="list-style-type: none"> <li>a. Must be conducted by qualified individuals(s) and according to BLM and Service accepted survey protocols.</li> <li>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 BLM or USFWS botanist or demonstrating that the nearest known population is in flower),</li> </ol> </li> </ol>

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- 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:
- a. Follow the above recommendations in Section 3 for project design within suitable habitats.

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- 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

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	<p>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.</p> <p>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.</p> <p>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.</p>
<b>T&amp;E-30</b>	<p style="text-align: center;"><b>NAVAJO SEDGE – POTENTIAL, SUITABLE AND OCCUPIED HABITAT</b></p> <p>The lessee/operator is given notice that the lands located in this parcel contain potential habitat for Navajo sedge (<i>Carex specuicola</i>).</p> <p>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.</p> <p>For the purposes of this document, the following terms are so defined: <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. Habitat descriptions can be found in Federal Register Notice and species recovery plan links at: <a href="http://www.fws.gov/endangered/species/">http://www.fws.gov/endangered/species/</a>.</p> <p><i>Occupied habitat</i> is defined as areas currently or historically known to support Navajo sedge; 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"> <li>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.</li> <li>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),</li> </ol>

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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:

- 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.

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- 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.
  - 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:



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- 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.
- 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.

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- 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.
  - 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

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	<p>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 Navajo sedge is anticipated as a result of project activities.</p> <p>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.</p>
<b>T&amp;E-32</b>	<p style="text-align: center;"><b>CISCO MILKVETCH</b></p> <p>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.</p> <p>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.</p> <p>For the purposes of this document, the following terms are so defined: <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 Cisco milkvetch; habitat descriptions can be found in NatureServe links at <a href="http://explorer.natureserve.org/">http://explorer.natureserve.org/</a>. <i>Occupied habitat</i> is defined as areas currently or historically known to support Cisco milkvetch; 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"> <li>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.</li> <li>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</li> </ol>

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- be assessed and mapped for avoidance (hereafter, “avoidance areas”); in such cases, 300 foot 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 15<sup>th</sup> to May 31<sup>st</sup>; 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 15<sup>th</sup> 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 31<sup>st</sup> 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;

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- 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;
  - 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 15<sup>th</sup> to May 31<sup>st</sup> (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,

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- 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. 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>.