

Attachment A – Parcel List, Stipulations, and Notices

The two standard stipulations from the Competitive Leasing Handbook H-3120-1, *Cultural Resources* and *Endangered Species Act*, would be applied to all parcels.

UT1218 – 246

T. 22 S., R. 16 E., SLM

Sec. 35: NE, E2NW, S2.

560.00 Acres

Grand County, Utah

Moab Field Office

Moab MLP Stipulations

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

UT-S-359: CSU - Air Quality I

UT-S-360: CSU - Air Quality II

UT-S-362: NSO - Colorado and Green River Corridors

UT-S-364: CSU - Filming Locations

UT-S-370: CSU - Paleontology

UT-S-384: CSU - Soil (Steep Slopes)

UT-S-386: NSO - Water (Water Resources)

UT-S-387: NSO - Water (Ephemeral Streams)

UT-S-404: NSO - Visual Resources VRM II Areas

UT-S-407: NSO - Visual Resources (Rimlands of the Green and Colorado Rivers)

UT-S-413: CSU - Wildlife (Desert Bighorn Sheep and Deer and Elk Crucial Winter Habitat)

Moab MLP Lease Notices

UT-LN-49: Utah Sensitive Species

UT-LN-100: Fragile Soils - Mancos Shale

UT-LN-125: Light and Sound – Sensitive Resources

UT-LN-128: Federal Flood Risk Management Standard

UT-LN-136: Air Quality

UT-LN-137: Cultural Resources I

UT-LN-138: Cultural Resources II

UT-LN-139: Cultural Resources (High Potential for Cultural Sites)

UT-LN-142: Golden Eagle (Nest Sites and Territories)

UT-LN-143: Raptors

UT-LN-144: Migratory Bird

UT-LN-145: Ferruginous Hawk and Burrowing Owl Habitat

UT-LN-147: Kit Fox Habitat

T&E 23: Colorado River Endangered Fish

T&E 26: Southwestern Willow Flycatcher Habitat (Riparian Areas)

T&E 27: Yellow-Billed Cuckoo

T&E 28: California Condor (Potential Habitat)

T&E 29: Jones Cycladenia (Potential, Suitable and Occupied Habitat)

T&E 32: Cisco Milkvetch (Potential, Suitable and Occupied Habitat)

UT1218 – 247

T. 23 S., R. 16 E., SLM

Sec. 11: Lots 1 and 6.

68.28 Acres

Grand County, Utah

Moab Field Office

Moab MLP Stipulations

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

UT-S-359: CSU - Air Quality I

UT-S-360: CSU - Air Quality II

UT-S-362: NSO - Colorado and Green River Corridors

UT-S-364: CSU - Filming Locations

UT-S-370: CSU - Paleontology

UT-S-384: CSU - Soil (Steep Slopes)

UT-S-386: NSO - Water (Water Resources)

UT-S-387: NSO - Water (Ephemeral Streams)

UT-S-404: NSO - Visual Resources VRM II Areas

UT-S-407: NSO - Visual Resources (Rimlands of the Green and Colorado Rivers)

UT-S-413: CSU - Wildlife (Desert Bighorn Sheep and Deer and Elk Crucial Winter Habitat)

Moab MLP Lease Notices

UT-LN-49: Utah Sensitive Species

UT-LN-53: Riparian Areas

UT-LN-100: Fragile Soils - Mancos Shale

UT-LN-125: Light and Sound – Sensitive Resources

UT-LN-128: Federal Flood Risk Management Standard

UT-LN-136: Air Quality

UT-LN-137: Cultural Resources I

UT-LN-138: Cultural Resources II

UT-LN-139: Cultural Resources (High Potential for Cultural Sites)

UT-LN-142: Golden Eagle (Nest Sites and Territories)

UT-LN-143: Raptors

UT-LN-144: Migratory Bird

UT-LN-145: Ferruginous Hawk and Burrowing Owl Habitat

UT-LN-147: Kit Fox Habitat

T&E 23: Colorado River Endangered Fish

T&E 26: Southwestern Willow Flycatcher Habitat (Riparian Areas)

T&E 27: Yellow-Billed Cuckoo

T&E 28: California Condor (Potential Habitat)

T&E 29: Jones Cycladenia (Potential, Suitable and Occupied Habitat)

T&E 32: Cisco Milkvetch (Potential, Suitable and Occupied Habitat)

UT1218 – 248

T. 21 S., R. 17 E., SLM

Sec. 17: N2;

Sec. 18: Lots 1, 2, NE, E2NW.
627.82 Acres
Grand County, Utah
Moab Field Office

Stipulations

UT-S-01: Air Quality
UT-S-77: NSO - Moab Canyon Utility Corridor
UT-S-109: TL - Fragile Soils-Mancos Shale
UT-S-122: NSO - Floodplains, Riparian Areas, Springs and Public Water Resources
UT-S-224: TL - Pronghorn Fawning Grounds
UT-S-272: CSU/TL - Burrowing Owl and Ferruginous Hawk Nesting
UT-S-298: CSU - Kit Fox

Lease Notices

UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-53: Riparian Areas
UT-LN-65: Old Spanish Trail
UT-LN-67: Historical and Cultural Resource Values
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-72: High Potential Paleontological Resources
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-100: Fragile Soils - Mancos Shale
UT-LN-102: Air Quality Analysis
UT-LN-125: Light and Sound – Sensitive Resources
UT-LN-128: Federal Flood Risk Management Standard
T&E 07: Southwestern Willow Flycatcher
T&E 28: California Condor (Potential Habitat)
T&E 32: Cisco Milkvetch (Potential, Suitable and Occupied Habitat)

UT1218 – 249

T. 21 S., R. 17 E., SLM
Sec. 19: NE, E2NW, SE;
Sec. 20: W2;
Sec. 28: W2, SE;
Sec. 29: NE, N2NW, E2SE.

1,520.00 Acres
Grand County, Utah
Moab Field Office

Stipulations

UT-S-01: Air Quality
UT-S-77: NSO - Moab Canyon Utility Corridor
UT-S-109: TL - Fragile Soils-Mancos Shale
UT-S-122: NSO - Floodplains, Riparian Areas, Springs and Public Water Resources
UT-S-224: TL - Pronghorn Fawning Grounds
UT-S-272: CSU/TL - Burrowing Owl and Ferruginous Hawk Nesting
UT-S-298: CSU - Kit Fox

Lease Notices

UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-65: Old Spanish Trail
UT-LN-67: Historical and Cultural Resource Values
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-72: High Potential Paleontological Resources
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-100: Fragile Soils - Mancos Shale
UT-LN-102: Air Quality Analysis
UT-LN-125: Light and Sound – Sensitive Resources
UT-LN-128: Federal Flood Risk Management Standard
T&E 28: California Condor (Potential Habitat)
T&E 32: Cisco Milkvetch (Potential, Suitable and Occupied Habitat)

UT1218 – 250

T. 21 S., R. 17 E., SLM
Sec. 24: NWNW.
40.00 Acres
Grand County, Utah
Moab Field Office

Stipulations

UT-S-01: Air Quality
UT-S-109: TL - Fragile Soils-Mancos Shale
UT-S-122: NSO - Floodplains, Riparian Areas, Springs and Public Water Resources
UT-S-224: TL - Pronghorn Fawning Grounds
UT-S-272: CSU/TL - Burrowing Owl and Ferruginous Hawk Nesting
UT-S-298: CSU - Kit Fox

Lease Notices

UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors

UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-65: Old Spanish Trail
UT-LN-67: Historical and Cultural Resource Values
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-72: High Potential Paleontological Resources
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-100: Fragile Soils - Mancos Shale
UT-LN-102: Air Quality Analysis
UT-LN-125: Light and Sound – Sensitive Resources
UT-LN-128: Federal Flood Risk Management Standard
T&E 28: California Condor (Potential Habitat)
T&E 32: Cisco Milkvetch (Potential, Suitable and Occupied Habitat)

UT1218 – 251

T. 21 S., R. 17 E., SLM

Secs. 33, 34 and 35: All.

1,920.00 Acres

Grand County, Utah

Moab Field Office

Stipulations

UT-S-01: Air Quality
UT-S-77: NSO - Moab Canyon Utility Corridor
UT-S-109: TL - Fragile Soils-Mancos Shale
UT-S-122: NSO - Floodplains, Riparian Areas, Springs and Public Water Resources
UT-S-224: TL - Pronghorn Fawning Grounds
UT-S-272: CSU/TL - Burrowing Owl and Ferruginous Hawk Nesting
UT-S-298: CSU - Kit Fox

Lease Notices

UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-65: Old Spanish Trail
UT-LN-67: Historical and Cultural Resource Values
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-72: High Potential Paleontological Resources
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-100: Fragile Soils - Mancos Shale
UT-LN-102: Air Quality Analysis
UT-LN-125: Light and Sound – Sensitive Resources

UT-LN-128: Federal Flood Risk Management Standard
T&E 07: Southwestern Willow Flycatcher
T&E 28: California Condor (Potential Habitat)
T&E 32: Cisco Milkvetch (Potential, Suitable and Occupied Habitat)

UT1218 – 252

T. 22 S., R. 17 E., SLM
Secs. 3 and 4: All.
1,386.12 Acres
Grand County, Utah
Moab Field Office

Stipulations

UT-S-01: Air Quality
UT-S-77: NSO - Moab Canyon Utility Corridor
UT-S-109: TL - Fragile Soils-Mancos Shale
UT-S-122: NSO - Floodplains, Riparian Areas, Springs and Public Water Resources
UT-S-224: TL - Pronghorn Fawning Grounds
UT-S-272: CSU/TL - Burrowing Owl and Ferruginous Hawk Nesting
UT-S-298: CSU - Kit Fox

Lease Notices

UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-53: Riparian Areas
UT-LN-65: Old Spanish Trail
UT-LN-67: Historical and Cultural Resource Values
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-72: High Potential Paleontological Resources
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-100: Fragile Soils - Mancos Shale
UT-LN-102: Air Quality Analysis
UT-LN-125: Light and Sound – Sensitive Resources
UT-LN-128: Federal Flood Risk Management Standard
T&E 07: Southwestern Willow Flycatcher
T&E 28: California Condor (Potential Habitat)
T&E 32: Cisco Milkvetch (Potential, Suitable and Occupied Habitat)

UT1218 – 253

T. 22 S., R. 17 E., SLM
Secs. 5, 6 and 7: All.
1,994.72 Acres

Grand County, Utah
Moab Field Office

Stipulations

UT-S-01: Air Quality
UT-S-77: NSO - Moab Canyon Utility Corridor
UT-S-109: TL - Fragile Soils-Mancos Shale
UT-S-122: NSO - Floodplains, Riparian Areas, Springs and Public Water Resources
UT-S-224: TL - Pronghorn Fawning Grounds
UT-S-272: CSU/TL - Burrowing Owl and Ferruginous Hawk Nesting
UT-S-298: CSU - Kit Fox

Lease Notices

UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-53: Riparian Areas
UT-LN-67: Historical and Cultural Resource Values
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-72: High Potential Paleontological Resources
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-100: Fragile Soils - Mancos Shale
UT-LN-102: Air Quality Analysis
UT-LN-125: Light and Sound – Sensitive Resources
UT-LN-128: Federal Flood Risk Management Standard
T&E 07: Southwestern Willow Flycatcher
T&E 28: California Condor (Potential Habitat)
T&E 32: Cisco Milkvetch (Potential, Suitable and Occupied Habitat)

UT1218 – 254

T. 22 S., R. 17 E., SLM
Secs. 8, 9 and 10: All.
1,920.00 Acres
Grand County, Utah
Moab Field Office

Stipulations

UT-S-01: Air Quality
UT-S-77: NSO - Moab Canyon Utility Corridor
UT-S-109: TL - Fragile Soils-Mancos Shale
UT-S-122: NSO - Floodplains, Riparian Areas, Springs and Public Water Resources
UT-S-224: TL - Pronghorn Fawning Grounds
UT-S-272: CSU/TL - Burrowing Owl and Ferruginous Hawk Nesting

UT-S-298: CSU - Kit Fox

Lease Notices

UT-LN-25: White-Tailed and Gunnison Prairie Dog
UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-53: Riparian Areas
UT-LN-65: Old Spanish Trail
UT-LN-67: Historical and Cultural Resource Values
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-72: High Potential Paleontological Resources
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-100: Fragile Soils - Mancos Shale
UT-LN-102: Air Quality Analysis
UT-LN-125: Light and Sound – Sensitive Resources
UT-LN-128: Federal Flood Risk Management Standard
T&E 07: Southwestern Willow Flycatcher
T&E 28: California Condor (Potential Habitat)
T&E 32: Cisco Milkvetch (Potential, Suitable and Occupied Habitat)

UT1218 – 255

T. 23 S., R. 17 E., SLM

Sec. 1: Lot 4, 5, S2NE, SENW, W2SW, SESW, S2SE;

Sec. 11: Lot 1, NENE, S2NE, S2NW, N2SW, SESW, SE;

Sec. 12: NE, S2NW, S2.

1,482.32 Acres

Grand County, Utah

Moab Field Office

Moab MLP Stipulations

UT-S-358: CSU - Air Quality and Greenhouse Gases
UT-S-359: CSU - Air Quality I
UT-S-360: CSU - Air Quality II
UT-S-364: CSU - Filming Locations
UT-S-370: CSU - Paleontology
UT-S-376: CSU - Recreation (Canyon Rims, Labyrinth Rims/Gemini Bridges and South Moab SRMAs)
UT-S-382: TL - Soil (Saline Soils within the Mancos Shale)
UT-S-383: CSU - Soil (Saline Soils)
UT-S-384: CSU - Soil (Steep Slopes)
UT-S-386: NSO - Water (Water Resources)
UT-S-387: NSO - Water (Ephemeral Streams)
UT-S-395: CSU - Old Spanish Trail (High Potential Sites and Segments)

UT-S-412: CSU - Wildlife (Desert Bighorn Sheep Lambing and Rutting Habitat)
UT-S-413: CSU - Wildlife (Desert Bighorn Sheep and Deer and Elk Crucial Winter Habitat)

Moab MLP Lease Notices

UT-LN-49: Utah Sensitive Species
UT-LN-53: Riparian Areas
UT-LN-100: Fragile Soils - Mancos Shale
UT-LN-125: Light and Sound – Sensitive Resources
UT-LN-128: Federal Flood Risk Management Standard
UT-LN-136: Air Quality
UT-LN-137: Cultural Resources I
UT-LN-138: Cultural Resources II
UT-LN-139: Cultural Resources (High Potential for Cultural Sites)
UT-LN-140: Old Spanish National Historic Trail
UT-LN-142: Golden Eagle (Nest Sites and Territories)
UT-LN-143: Raptors
UT-LN-144: Migratory Bird
UT-LN-145: Ferruginous Hawk and Burrowing Owl Habitat
UT-LN-146: White-Tailed Prairie Dog/Gunnison Prairie Dog Habitat
UT-LN-147: Kit Fox Habitat
T&E 26: Southwestern Willow Flycatcher Habitat (Riparian Areas)
T&E 28: California Condor (Potential Habitat)
T&E 29: Jones Cycladenia (Potential, Suitable and Occupied Habitat)
T&E 32: Cisco Milkvetch (Potential, Suitable and Occupied Habitat)

UT1218 – 256

T. 23 S., R. 17 E., SLM
 Sec. 3: Lots 1-4, S2NE;
 Secs. 4, 5 and 6: All.
2,223.82 Acres
Grand County, Utah
Moab Field Office

Moab MLP Stipulations

UT-S-358: CSU - Air Quality and Greenhouse Gases
UT-S-359: CSU - Air Quality I
UT-S-360: CSU - Air Quality II
UT-S-370: CSU - Paleontology
UT-S-376: CSU - Recreation (Canyon Rims, Labyrinth Rims/Gemini Bridges and South Moab SRMAs)
UT-S-382: TL - Soil (Saline Soils within the Mancos Shale)
UT-S-383: CSU - Soil (Saline Soils)
UT-S-384: CSU - Soil (Steep Slopes)
UT-S-386: NSO - Water (Water Resources)
UT-S-387: NSO - Water (Ephemeral Streams)
UT-S-413: CSU - Wildlife (Desert Bighorn Sheep and Deer and Elk Crucial Winter Habitat)

Moab MLP Lease Notices

UT-LN-49: Utah Sensitive Species
UT-LN-53: Riparian Areas
UT-LN-100: Fragile Soils - Mancos Shale
UT-LN-125: Light and Sound – Sensitive Resources
UT-LN-128: Federal Flood Risk Management Standard
UT-LN-136: Air Quality
UT-LN-137: Cultural Resources I
UT-LN-138: Cultural Resources II
UT-LN-139: Cultural Resources (High Potential for Cultural Sites)
UT-LN-142: Golden Eagle (Nest Sites and Territories)
UT-LN-143: Raptors
UT-LN-144: Migratory Bird
UT-LN-145: Ferruginous Hawk and Burrowing Owl Habitat
UT-LN-146: White-Tailed Prairie Dog/Gunnison Prairie Dog Habitat
UT-LN-147: Kit Fox Habitat
T&E 26: Southwestern Willow Flycatcher Habitat (Riparian Areas)
T&E 28: California Condor (Potential Habitat)
T&E 29: Jones Cycladenia (Potential, Suitable and Occupied Habitat)
T&E 32: Cisco Milkvetch (Potential, Suitable and Occupied Habitat)

UT1218 – 258

T. 23 S., R. 18 E., SLM
Secs. 1 and 3: All.
1,329.88 Acres
Grand County, Utah
Moab Field Office

Moab MLP Stipulations

UT-S-77: NSO - Moab Canyon Utility Corridor
UT-S-358: CSU - Air Quality and Greenhouse Gases
UT-S-359: CSU - Air Quality I
UT-S-360: CSU - Air Quality II
UT-S-370: CSU - Paleontology
UT-S-376: CSU - Recreation (Canyon Rims, Labyrinth Rims/Gemini Bridges and South Moab SRMAs)
UT-S-382: TL - Soil (Saline Soils within the Mancos Shale)
UT-S-383: CSU - Soil (Saline Soils)
UT-S-384: CSU - Soil (Steep Slopes)
UT-S-387: NSO - Water (Ephemeral Streams)
UT-S-395: CSU - Old Spanish Trail (High Potential Sites and Segments)

Moab MLP Lease Notices

UT-LN-49: Utah Sensitive Species
UT-LN-100: Fragile Soils - Mancos Shale

UT-LN-125: Light and Sound – Sensitive Resources
UT-LN-128: Federal Flood Risk Management Standard
UT-LN-136: Air Quality
UT-LN-137: Cultural Resources I
UT-LN-138: Cultural Resources II
UT-LN-139: Cultural Resources (High Potential for Cultural Sites)
UT-LN-140: Old Spanish National Historic Trail
UT-LN-142: Golden Eagle (Nest Sites and Territories)
UT-LN-143: Raptors
UT-LN-144: Migratory Bird
UT-LN-145: Ferruginous Hawk and Burrowing Owl Habitat
UT-LN-146: White-Tailed Prairie Dog/Gunnison Prairie Dog Habitat
UT-LN-147: Kit Fox Habitat
T&E 28: California Condor (Potential Habitat)
T&E 32: Cisco Milkvetch (Potential, Suitable and Occupied Habitat)

UT1218 – 259

T. 23 S., R. 18 E., SLM
Secs. 4, 5 and 6: All.
1,981.63 Acres
Grand County, Utah
Moab Field Office

Moab MLP Stipulations

UT-S-77: NSO - Moab Canyon Utility Corridor
UT-S-358: CSU - Air Quality and Greenhouse Gases
UT-S-359: CSU - Air Quality I
UT-S-360: CSU - Air Quality II
UT-S-370: CSU - Paleontology
UT-S-376: CSU - Recreation (Canyon Rims, Labyrinth Rims/Gemini Bridges and South Moab SRMAs)
UT-S-382: TL - Soil (Saline Soils within the Mancos Shale)
UT-S-383: CSU - Soil (Saline Soils)
UT-S-384: CSU - Soil (Steep Slopes)
UT-S-387: NSO - Water (Ephemeral Streams)
UT-S-413: CSU - Wildlife (Desert Bighorn Sheep and Deer and Elk Crucial Winter Habitat)

Moab MLP Lease Notices

UT-LN-49: Utah Sensitive Species
UT-LN-100: Fragile Soils - Mancos Shale
UT-LN-125: Light and Sound – Sensitive Resources
UT-LN-128: Federal Flood Risk Management Standard
UT-LN-136: Air Quality
UT-LN-137: Cultural Resources I
UT-LN-138: Cultural Resources II
UT-LN-139: Cultural Resources (High Potential for Cultural Sites)

UT-LN-140: Old Spanish National Historic Trail
UT-LN-142: Golden Eagle (Nest Sites and Territories)
UT-LN-143: Raptors
UT-LN-144: Migratory Bird
UT-LN-145: Ferruginous Hawk and Burrowing Owl Habitat
UT-LN-146: White-Tailed Prairie Dog/Gunnison Prairie Dog Habitat
UT-LN-147: Kit Fox Habitat
T&E 28: California Condor (Potential Habitat)
T&E 29: Jones Cycladenia (Potential, Suitable and Occupied Habitat)
T&E 32: Cisco Milkvetch (Potential, Suitable and Occupied Habitat)

UT1218 – 277

T. 27 S., R. 21 E., SLM
Sec. 31: Lots 1-4.
130.24 Acres
San Juan County, Utah
Moab Field Office

Moab MLP Stipulations

UT-S-358: CSU - Air Quality and Greenhouse Gases
UT-S-359: CSU - Air Quality I
UT-S-360: CSU - Air Quality II
UT-S-370: CSU - Paleontology
UT-S-374: NSO - Recreation (Western Portions of the Canyon Rims SRMA)
UT-S-384: CSU - Soil (Steep Slopes)
UT-S-387: NSO - Water (Ephemeral Streams)
UT-S-399: CSU - Vegetation (Sagebrush/Steppe Habitat)
UT-S-404: NSO - Visual Resources VRM II Areas
UT-S-407: NSO - Visual Resources (Rimlands of the Green and Colorado Rivers)
UT-S-408: CSU - Auditory Management - Soundscape (Lands Bordering Arches and Canyonlands National Parks)
UT-S-410: TL - Wildlife (Lockhart Desert Bighorn Sheep Herd)

Moab MLP Lease Notices

UT-LN-49: Utah Sensitive Species
UT-LN-125: Light and Sound – Sensitive Resources
UT-LN-128: Federal Flood Risk Management Standard
UT-LN-136: Air Quality
UT-LN-137: Cultural Resources I
UT-LN-138: Cultural Resources II
UT-LN-139: Cultural Resources (High Potential for Cultural Sites)
UT-LN-142: Golden Eagle (Nest Sites and Territories)
UT-LN-143: Raptors
UT-LN-144: Migratory Bird
UT-LN-146: White-Tailed Prairie Dog/Gunnison Prairie Dog Habitat
UT-LN-147: Kit Fox Habitat

T&E 25: Mexican Spotted Owl
T&E 28: California Condor (Potential Habitat)
T&E 29: Jones Cycladenia (Potential, Suitable and Occupied Habitat)
T&E 30: Navajo Sedge (Potential, Suitable and Occupied Habitat)

UT1218 – 297

T. 16 S., R. 23 E., SLM
Sec. 21: E2, S2SW;
Sec. 22: E2SE;
Sec. 28: E2, E2NW, NESW, S2SW;
Sec. 29: SENE.

1,040.00 Acres
Grand County, Utah
Moab Field Office

Stipulations

UT-S-01: Air Quality
UT-S-108: TL - 30% Slopes or Greater - Bookcliffs
UT-S-122: NSO - Floodplains, Riparian Areas, Springs and Public Water Resources
UT-S-246: TL - Deer and Elk Fawning and Calving Habitat
UT-S-298: CSU - Kit Fox
UT-S-329: CSU - Slopes Greater Than 30%

Lease Notices

UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-67: Historical and Cultural Resource Values
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-72: High Potential Paleontological Resources
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-125: Light and Sound – Sensitive Resources
UT-LN-128: Federal Flood Risk Management Standard
T&E 06: Mexican Spotted Owl
T&E 28: California Condor (Potential Habitat)

UT1218 – 298

T. 16 S., R. 23 E., SLM
Sec. 21: N2SW;
Sec. 22: N2, SW, W2SE;
Sec. 29: E2NE.

680.00 Acres
Grand County, Utah

Vernal Field Office

Stipulations

- UT-S-01: Air Quality
- UT-S-96: NSO - Fragile Soils/Slopes Greater than 40%
- UT-S-99: CSU - Fragile Soils/Slopes
- UT-S-100: CSU - Fragile Soils/Slopes (21%-40%)
- UT-S-123: NSO - Riparian, Floodplains, and Public Water Reserves
- UT-S-157: NSO/CSU/TL - Visual Resources
- UT-S-159: CSU - Visual Resources - VRM II
- UT-S-175: CSU/TL - Cultural Resources - Upper Willow Creek Area of the Book Cliffs
- UT-S-218: CSU - White-Tailed Prairie Dog
- UT-S-230: TL - Crucial Deer and Elk Winter Range
- UT-S-247: TL - Crucial Elk Calving and Deer Fawning Habitat
- UT-S-261: TL - Raptor Buffers
- UT-S-325: TL - Raptor Nest Sites

Lease Notices

- UT-LN-02: Crucial Winter Mule Deer and Elk Habitat
- UT-LN-11: Crucial Elk Calving and Deer Fawning Habitat
- UT-LN-25: White-Tailed and Gunnison Prairie Dog
- UT-LN-40: Golden Eagle Habitat
- UT-LN-44: Raptors
- UT-LN-45: Migratory Bird
- UT-LN-49: Utah Sensitive Species
- UT-LN-51: Special Status Plants: Not Federally Listed
- UT-LN-53: Riparian Areas
- UT-LN-56: Drinking Water Source Protection Zone
- UT-LN-57: Public Water Reserve
- UT-LN-60: Steep Slopes
- UT-LN-61: Severe Soil Erosion & Steep Slopes
- UT-LN-68: Notification & Consultation Regarding Cultural Resources
- UT-LN-70: High Potential for Cultural Resource Occurrence
- UT-LN-96: Air Quality Mitigation Measures
- UT-LN-99: Regional Ozone Formation Controls
- UT-LN-102: Air Quality Analysis
- UT-LN-116: Helium Lease Notice
- UT-LN-128: Federal Flood Risk Management Standard
- UT-LN-131: Greater Sage-Grouse - Net Conservation Gain
- UT-LN-132: Greater Sage-Grouse - Required Design Features
- T&E 03: Endangered Fish of the Upper Colorado River Drainage Basin
- T&E 05: Listed Plant Species

UT1218 – 322

T. 17 S., R. 24 E., SLM

Secs. 23, 24, 25 and 26: All.

2,560.00 Acres
Grand County, Utah
Moab Field Office

Stipulations

UT-S-01: Air Quality
UT-S-108: TL - 30% Slopes or Greater - Bookcliffs
UT-S-122: NSO - Floodplains, Riparian Areas, Springs and Public Water Resources
UT-S-224: TL - Pronghorn Fawning Grounds
UT-S-229: TL - Crucial Deer and Elk Winter Range
UT-S-298: CSU - Kit Fox
UT-S-329: CSU - Slopes Greater Than 30%

Lease Notices

UT-LN-40: Golden Eagle Habitat
UT-LN-44: Raptors
UT-LN-45: Migratory Bird
UT-LN-49: Utah Sensitive Species
UT-LN-67: Historical and Cultural Resource Values
UT-LN-68: Notification & Consultation Regarding Cultural Resources
UT-LN-72: High Potential Paleontological Resources
UT-LN-96: Air Quality Mitigation Measures
UT-LN-99: Regional Ozone Formation Controls
UT-LN-102: Air Quality Analysis
UT-LN-125: Light and Sound – Sensitive Resources
UT-LN-128: Federal Flood Risk Management Standard
T&E 06: Mexican Spotted Owl
T&E 28: California Condor (Potential Habitat)

Stipulations and Lease Notices

The following stipulations will be attached to all parcels:

1. In conformance with Handbook 3120: **Cultural Resources Stipulation**

This lease may be found to contain historic properties and/or resources protected under the National Historic Preservation Act, American Indian Religious Freedom Act, Native American Graves Protection and Repatriation Act, E.O. 13007, or other statutes and executive orders. The BLM will not approve any ground disturbing activities that may affect any such properties or resources until it completes its obligations under applicable requirements of the NHPA and other authorities. The BLM may require modification to exploration or development proposals to protect such properties, or disapprove any activity that is likely to result in adverse effects that cannot be successfully avoided, minimized or mitigated.

2. In conformance with Handbook 3120: **Endangered Species Act Section 7 Consultation Stipulation**

The lease may now and hereafter contain plants, animals, and their habitats determined to be special status species. The BLM may recommend modifications to exploration and development proposals to further its conservation and management objectives to avoid BLM approved activity that will contribute to a need to list such a species or their habitat. The BLM may require modification to or disapprove proposed activity that is likely to result in jeopardy to the continued existence of a proposed or listed threatened or endangered species or result in the destruction or adverse modification of a designated or proposed critical habitat. The BLM will not approve any ground-disturbing activity that may affect any such species or critical habitat until it completes its obligation under requirements of the Endangered Species Act as amended, 16 U. S. C. § 1531 *et seq.* including completion of any required procedure for conference.

The following lease stipulations are required by the MLP, RMP and BLM policy requirements.

**UT-S-01
AIR QUALITY**

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

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

Modification: None

Waiver: None

AND

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

Exception: None

Modification: None

Waiver: None

UT-S-77

NO SURFACE OCCUPANCY – MOAB CANYON UTILITY CORRIDOR

No mineral activities allowed within the utility corridor other than those associated with utilities.

Purpose: To prevent future surface use conflicts along Highway 191 and within the utility corridor.

Exception: The Authorized Officer may grant an exception if it is determined that the factors leading to its inclusion in the lease have changed sufficiently such that: 1) the protection provided by the stipulation is no longer justified or necessary to meet resource objectives established in the Moab MLP; or 2) proposed operations would not cause unacceptable impacts. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination.

Modification: The Authorized Officer may modify the stipulation as a result of new information if: 1) the protection provided by the stipulation is no longer justified or necessary to meet resource objectives established in the Moab MLP; 2) the protection provided by the stipulation is no longer sufficient to meet resource objectives established in the Moab MLP; or 3) proposed operations would not cause unacceptable impacts. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The modification may be subject to public review for at least a 30-day period.

Waiver: The Authorized Officer may waive the stipulation if it is determined that the factors leading to its inclusion in the lease no longer exist. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The waiver may be subject to public review for at least a 30-day period.

UT-S-96

NO SURFACE OCCUPANCY – FRAGILE SOILS/SLOPES GREATER THAN 40%

No surface occupancy for slopes greater than 40 percent.

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

- An erosion control strategy;
- GIS modeling;
- Proper survey and design by a certified engineer.

Modification: Modifications also may be granted if a more detailed analysis, i.e. Order I, soil survey conducted by a qualified soil scientist finds that surface disturbance activities could occur on slopes greater than 40% while adequately protecting the area from accelerated erosion.

Waiver: None

UT-S-99

CONTROLLED SURFACE USE – FRAGILE SOILS/SLOPES

The surface operating standards for oil and gas exploration and development (Gold Book) shall be used as a guide for surface-disturbing proposals on steep slopes/hillsides.

Exception: None

Modification: None

Waiver: None

UT-S-100

CONTROLLED SURFACE USE – FRAGILE SOILS/SLOPES (21%-40%)

If surface-disturbing activities cannot be avoided on slopes from 21-40% a plan will be required. The plan will approved by BLM prior to construction and maintenance and include:

- An erosion control strategy;
- GIS modeling;
- Proper survey and design by a certified engineer.

Exception: None

Modification: None

Waiver: None

UT-S-108

TIMING LIMITATION – 30% SLOPES OR GREATER – BOOKCLIFFS

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

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

Modification: None

Waiver: None

UT-S-109

TIMING LIMITATION – FRAGILE SOILS – MANCOS SHALE

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

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

Modification: None

Waiver: None

UT-S-122

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

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

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

Modification: None

Waiver: None

UT-S-123

NO SURFACE OCCUPANCY – RIPARIAN, FLOODPLAINS, AND PUBLIC WATER RESERVES

No new surface-disturbing activities are allowed within active flood plains, wetlands, public water reserves, or 100 meters of riparian areas. Keep construction of new stream crossings to a minimum.

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

Modification: None

Waiver: None

UT-S-157

NO SURFACE OCCUPANCY/CONTROLLED SURFACE USE/TIMING LIMITATION – VISUAL RESOURCES

Visual resource management activities will comply with BLM Handbook 8410-1.

Within VRM Class I areas, very limited management activity will be allowed, with the objective of preserving the existing character of the landscape, allowing for natural ecological changes.

The level of change to the landscape should be very low and shall not attract attention.

Within VRM Class II areas, surface-disturbing activities will retain the existing character of the landscape. The level of change to the landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any change to the landscape shall repeat the basic elements of form, line, color and texture found in the predominant natural features of the characteristic landscape.

Within VRM Class III areas, surface disturbing activities will partially retain the existing character of the landscape. The allowable level of change will be moderate, may attract attention, but should not dominate the view of the casual observer. Landscape changes should repeat the basic elements of form, line, color and texture found in the predominant natural features of the characteristic landscape.

Within VRM Class IV areas, surface disturbing activities are allowed to dominate the view and the major focus of viewer attention. Major modifications to the existing character of the landscape are allowed. But every attempt should be made to minimize and mitigate the impacts.

Exception: Exempted are recognized utility corridors.

Modification: None

Waiver: None

UT-S-159

CONTROLLED SURFACE USE – VISUAL RESOURCES - VRM II

Within VRM II areas, surface-disturbing activities will retain the existing character of the landscape. The level of change to the landscape should be low. Management activities may be seen, but should not attract attention of the casual observer. Any change to the landscape must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

Exception: Exempted are recognized utility corridors.

Modification: None

Waiver: None

UT-S-175

CONTROLLED SURFACE USE/TIMING LIMITATIONS CULTURAL RESOURCES – UPPER WILLOW CREEK AREA OF THE BOOK CLIFFS

To preserve the unique representation of the Archaic period, the surface disturbing activities will be subject to timing and controlled surface use stipulations.

Exception: None

Modification: None

Waiver: None

UT-S-218

CONTROLLED SURFACE USE – WHITE-TAILED PRAIRIE DOG

No surface-disturbing activities within 660 feet of prairie dog colonies identified within prairie dog habitat. No permanent aboveground facilities are allowed within the 660 foot buffer.

Exception: An exception may be granted by the authorized officer if the applicant submits a plan that indicates that impacts of the proposed action can be adequately mitigated or, if due to the size of the town, there is no reasonable location to develop a lease and avoid colonies the authorized officer will allow for loss of prairie dog colonies and/or habitat to satisfy terms and conditions of the lease.

Modification: The authorized officer may modify the boundaries of the stipulation area if portions of the area does not include prairie dog habitat or *active* colonies are found outside current defined area, as determined by BLM.

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

UT-S-224

TIMING LIMITATION – PRONGHORN FAWNING GROUNDS

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

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

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

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

UT-S-229

TIMING LIMITATION – CRUCIAL DEER AND ELK WINTER RANGE

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

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

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

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

UT-S-230

TIMING LIMITATION – CRUCIAL DEER AND ELK WINTER RANGE

No surface disturbing activities in deer and elk crucial winter range from **December 1 - April 30**.

Exception: This restriction would not apply if and/or elk are not present, or if it is determined through analysis and coordination with UDWR that impacts could be mitigated. Factors to be considered would include snow depth, temperature, snow crusting, location of disturbance, forage quantity and quality, animal condition, and expected duration of disturbance.

Modification: The stipulation could be modified based on findings of collaborative monitoring and analysis. For example, the winter range configuration and time frames could be changed if

current animal use patterns are determined to be inconsistent with the dates and boundaries established.

Waiver: This stipulation could be waived if it is determined through collaborative monitoring and analysis that the area is not crucial winter range or that timing restrictions are unnecessary.

UT-S-246

TIMING LIMITATION – DEER AND ELK FAWNING AND CALVING HABITAT

No surface disturbing activities in deer and elk fawning and calving habitat from **May 15 to June 30** to minimize stress and disturbance during this critical period.

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

Modification: The authorized officer may modify the boundaries of the stipulation area (1) if a portion of the area is not being used as 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.

Waiver: 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.

UT-S-247

TIMING LIMITATION – CRUCIAL ELK CALVING AND DEER FAWNING HABITAT

In order to protect crucial elk calving and deer fawning habitat exploration, drilling, and other development activity will not be allowed from **May 15 - June 30**.

Exception: This restriction would not apply to maintenance and operation of existing facilities. This stipulation may be excepted if either the resource values change or the lessee/operator demonstrates to BLMs satisfaction that adverse impact can be mitigated.

Modification: None

Waiver: None

UT-S-261

TIMING LIMITATION – RAPTOR BUFFERS

Raptor management will be guided by the use of "Best Management Practices for Raptors and Their Associated Habitats in Utah" (Utah BLM, 2006, Appendix A), utilizing seasonal and spatial buffers, as well as mitigation, to maintain and enhance raptor nesting and foraging habitat, while allowing other resource uses.

Exception: None

Modification: Criteria that would need to be met, prior to implementing modifications to the spatial and seasonal buffers in the "*Raptor BMPs*", would include the following:

1. Completion of a site-specific assessment by a wildlife biologist or other qualified individual. See example (Attachment 1 of the Raptor BMPs in Appendix A)
2. Written documentation by the BLM Field Office Wildlife Biologist, identifying the proposed modification and affirming that implementation of the proposed modification(s) would not affect nest success or the suitability of the site for future nesting. Modification of the "BMPs" would not be recommended if it is determined that adverse impacts to

nesting raptors would occur or that the suitability of the site for future nesting would be compromised.

3. Development of a monitoring and mitigation strategy by a BLM biologist, or other raptor biologist. Impacts of authorized activities would be documented to determine if the modifications were implemented as described in the environmental documentation or Conditions of Approval, and were adequate to protect the nest site. Should adverse impacts be identified during monitoring of an activity, BLM would follow an appropriate course of action, which may include cessation or modification of activities that would avoid, minimize or mitigate the impact, or, with the approval of UDWR and the USFWS, BLM could allow the activity to continue while requiring monitoring to determine the full impact of the activity on the affected raptor nest. A monitoring report would be completed and forwarded to UDWR for incorporation into the Natural Heritage Program (NHP) raptor database.

Waiver: None

UT-S-272

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

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

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

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

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

UT-S-298

CONDITIONAL SURFACE USE – KIT FOX

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

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

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

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

UT-S-325

TIMING LIMITATION – RAPTOR NEST SITES

Restrict surface disturbing activities within ½ mile around special status raptor species nest sites during the following time periods:

Mar 1–Aug 1: Ferruginous hawk

Mar 1–Aug 15: N. Goshawk

Restrict surface disturbing activities within ¼ mile around special status raptor species nest sites during the following time periods:

Mar 1–Aug 1: Short-eared owl

Mar 1–Aug 31: Burrowing owl

Exception: An exception could be granted if surveys determine that nesting sites are not occupied.

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

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

UT-S-329

CONTROLLED SURFACE USE – SLOPES GREATER THAN 30%

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

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

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

Modification: None

Waiver: None

UT-S-358

CONTROLLED SURFACE USE - AIR QUALITY AND GREENHOUSE GASES

All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower shall not emit more than 2 grams of NO_x per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.

All new and replacement internal combustion gas field engines of greater than 300 design-rated horsepower must not emit more than 1 gram of NO_x per horsepower-hour.

Purpose: To protect air quality and minimize greenhouse gas emissions.

Exception: None

Modification: The Authorized Officer may modify the stated requirements in accordance with updated specifications to comply with the Clean Air Act, or as deemed necessary to ensure that the stipulation is sufficient to maintain air quality and protect air quality related values.

Waiver: None

UT-S-359

CONTROLLED SURFACE USE - AIR QUALITY I

All drilling and production operations are required to adhere to the following minimum standards:

1. Drill rig engines must meet Tier II or better standards, as necessary based on air quality conditions or projections, and consistent with the most stringent Environmental Protection Agency emissions standards that are in force at the time of installation or approval.
2. Stationary internal combustion engine standard of 2g NOx/bhp-hr for engines <300HP and 1g NOx/bhp-hr for engines >300 HP.
3. Low bleed or no bleed pneumatic controller.
4. Dehydrator VOC emission controls to +95 percent efficiency.
5. Tank VOC emission controls to +95 percent efficiency equivalent to NSPS subpart 0000.

Purpose: To mitigate any potential impact mineral development emissions may have on regional ozone formation.

Exception: None

Modification: The Authorized Officer may modify the stipulation as a result of new information if: 1) the protection provided by the stipulation is no longer justified or necessary to meet resource objectives established in the Moab MLP; 2) the protection provided by the stipulation is no longer sufficient to meet resource objectives established in the Moab MLP; or 3) proposed operations would not cause unacceptable impacts. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The modification may be subject to public review for at least a 30-day period.

Waiver: None

UT-S-360

CONTROLLED SURFACE USE - AIR QUALITY II

A Fugitive Dust Control Plan is required for mineral activities that would disturb a surface area larger than 0.25 acres or that would involve truck traffic on unpaved or untreated surfaces.

Purpose: To minimize the generation of fugitive dust.

Exception: None

Modification: The Authorized Officer may modify the stipulation as a result of new information if: 1) the protection provided by the stipulation is no longer justified or necessary to meet resource objectives established in the Moab MLP; 2) the protection provided by the stipulation is no longer sufficient to meet resource objectives established in the Moab MLP; or 3) proposed operations would not cause unacceptable impacts. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The modification may be subject to public review for at least a 30-day period.

Waiver: None

UT-S-362

NO SURFACE OCCUPANCY – COLORADO AND GREEN RIVER CORRIDORS

No surface-disturbing activities within the area of the Three Rivers locatable mineral withdrawal, which includes suitable Wild and Scenic River (WSR) segments.

Purpose: To protect riparian, wildlife, scenic, and recreational values along the major river corridors.

Exception: None

Modification: None

Waiver: None

UT-S-363
**CONTROLLED SURFACE USE - IMPROVED ACCESS ROADS FOR
RECREATIONAL USE IN THE CANYON RIMS SPECIAL RECREATION
MANAGEMENT AREA (SRMA)**

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.

Purpose: To protect the integrity and public enjoyment of the Needles and Anticline Overlook Roads.

Exception: 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.

Modification: The Authorized Officer may modify the stipulation as a result of new information if: 1) the protection provided by the stipulation is no longer justified or necessary to meet resource objectives established in the Moab MLP; 2) the protection provided by the stipulation is no longer sufficient to meet resource objectives established in the Moab MLP; or 3) proposed operations would not cause unacceptable impacts. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The modification may be subject to public review for at least a 30-day period.

Waiver: The Authorized Officer may waive the stipulation if it is determined that the factors leading to its inclusion in the lease no longer exist. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The waiver may be subject to public review for at least a 30-day period.

UT-S-364
CONTROLLED SURFACE USE - FILMING LOCATIONS

A visual assessment is required within 1-mile of the high use filming locations listed below. This assessment must demonstrate that the proposed mineral operations within this area would not result in long-term impairment to the scenic quality from the filming locations. These filming locations include:

- Needles Overlook
- Colorado River Corridor and Corona Arch
- Green River Canyon
- Kane Creek Corridor
- Looking Glass Rock
- View from Dead Horse Point
- Potash Road/Shafer Basin (including Fossil Point)
- Long Canyon
- Highway 211 (including Newspaper Rock)
- Highway 313
- Mineral Bottom Road
- Behind the Rocks Jeep Route
- Monitor and Merrimac/Determination Towers/Mill Canyon/Bartlett Wash
- Gemini Bridges/Bull Canyon

- Jewell Tibbetts Arch
- White Wash.

Purpose: To protect the immediate foreground of high use filming locations.

Exception: The Authorized Officer may grant an exception if a visual assessment demonstrates that the proposed mineral operations would not result in long-term impairment to the scenic quality from the filming location.

Modification: The Authorized Officer may modify the stipulation if a filming location ceases to be utilized or if a new location becomes heavily used.

Waiver: The Authorized Officer may waive the stipulation if the film industry ceases to utilize the area for filming.

UT-S-365

CONTROLLED SURFACE USE - LANDS WITH WILDERNESS CHARACTERISTICS

Mineral operations are subject to the following requirements:

1. Multiple wells per pad as appropriate.
2. Well pads would be placed no closer than 2-miles apart.
3. Oil and Gas: Production facilities would be co-located and designed to minimize surface impacts. Pipelines and utilities would be placed within or immediately adjacent to existing roads.
4. Limit unreclaimed surface disturbance to no more than 15 acres per well pad (including associated facilities, roads, pipelines, and utilities) following interim reclamation.
5. Extensive interim reclamation of roadway disturbance and reclamation of well pads to minimize long-term surface disturbance.
6. Final reclamation fully restoring the original landform. Travel routes would be restored to their original character.
7. This stipulation would allow for geophysical operations.
8. Compensatory mitigation outside the area of impact could be required to minimize impacts to resources.

These requirements apply to the following lands identified by the BLM in the 2008 Resource Management Plan (RMP) as having wilderness characteristics:

- Arches Adjacent
- Behind the Rocks
- Bridger Jack Mesa
- Dead Horse Cliffs
- Dome Plateau (partial)
- Fisher Towers
- Goldbar
- Gooseneck
- Hatch/Lockhart/Hart
- Hatch Wash
- Horsethief Point
- Hunter Canyon
- Indian Creek
- Labyrinth Canyon
- Lost Spring Canyon

- Negro Bill Canyon
- Shafer Canyon
- Shay Mountain
- Yellowbird.

Purpose: To minimize the amount of surface disturbance and related impacts resulting from mineral development in areas with sensitive resources.

Exception: Where it can be shown that the proposed operation would not cause unacceptable impacts, the Authorized Officer may grant an exception based on any of the factors listed below:

- If alternative placement of well pads would enable the operator to use areas that have been previously disturbed.
- If alternative placement of well pads would minimize the need for new road construction.
- If there is a demonstrated reduction in the impacts to resources.
- If there is a valid safety concern.
- If the requirement of 2-mile spacing would preclude a lessee/operator from exercising their lease rights where the spacing would locate a well pad outside of the lease.
- An exception to the 2-mile placement could be granted if the proponent successfully demonstrates that geologic factors preclude access to a substantial portion of the oil and gas reservoir. An exception to the 2-mile placement would still require the maximum technologically feasible placement of oil and gas wells.

Modification: The Authorized Officer may modify the stipulation as a result of new information if: 1) the protection provided by the stipulation is no longer justified or necessary to meet resource objectives established in the Moab MLP; 2) the protection provided by the stipulation is no longer sufficient to meet resource objectives established in the Moab MLP; or 3) proposed operations would not cause unacceptable impacts. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The modification may be subject to public review for at least a 30-day period.

Waiver: The Authorized Officer may waive the stipulation if it is determined that the factors leading to its inclusion in the lease no longer exist. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The waiver may be subject to public review for at least a 30-day period.

UT-S-370

CONTROLLED SURFACE USE - PALEONTOLOGY

Surveys and monitoring (where appropriate) are required for all surface-disturbing mineral activities in PFYC Class 4 and 5 areas. Where monitoring encounters vertebrate and vertebrate trace fossils during mineral operations, all operations must cease until the BLM determines whether the site can be avoided, protected, or fully excavated.

Purpose: To protect paleontological resources.

Exception: None

Modification: The Authorized Officer could modify the stipulation if it is determined that the project area is not located within a PFYC Class 4 or 5 area.

Waiver: The Authorized Officer could waive the stipulation if it is determined that the entire lease area is not located within a PFYC Class 4 or 5 area.

UT-S-374

NO SURFACE OCCUPANCY - RECREATION (Western Portion of the Canyon Rims SRMA)

No surface occupancy allowed within visual resource management (VRM) Class II areas in the Canyon Rims SRMA, as well as to all lands on the west side of the Anticline Road. This includes the VRM Class II corridor along the Needles and Anticline Overlook roads.

Purpose: To protect recreational uses and experiences.

Exception: The Authorized Officer may grant an exception if it could be demonstrated using visual analysis that the proposed operation would not result in long-term visible impairment from Key Observation Points as defined by the BLM VRM Manual.

Modification: The Authorized Officer may modify the stipulation as a result of new information if: 1) the protection provided by the stipulation is no longer justified or necessary to meet resource objectives established in the Moab MLP; 2) the protection provided by the stipulation is no longer sufficient to meet resource objectives established in the Moab MLP; or 3) proposed operations would not cause unacceptable impacts. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The modification may be subject to public review for at least a 30-day period.

Waiver: The Authorized Officer may waive the stipulation if it is determined that the factors leading to its inclusion in the lease no longer exist. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The waiver may be subject to public review for at least a 30-day period.

UT-S-376

CONTROLLED SURFACE USE - RECREATION (Canyon Rims, Labyrinth Rims/Gemini Bridges and South Moab SRMAs)

Mineral operations outside the area designated as NSO are subject to the following requirements:

1. Multiple wells per pad as appropriate.
2. Well pads would be placed no closer than 2-miles apart.
3. Oil and Gas: Production facilities would be co-located and designed to minimize surface impacts. Pipelines and utilities would be placed within or immediately adjacent to existing roads.
4. Limit unreclaimed surface disturbance to no more than 15 acres per well pad (including associated facilities, roads, pipelines, and utilities) following interim reclamation.
5. Extensive interim reclamation of roadway disturbance and reclamation of well pads to minimize long-term surface disturbance.
6. Final reclamation fully restoring the original landform. Travel routes would be restored to their original character.
7. This stipulation would allow for geophysical operations.
8. Compensatory mitigation outside the area of impact could be required to minimize impacts to resources.

Purpose: To minimize the amount of surface disturbance and related impacts resulting from mineral development in areas with sensitive resources.

Exception: Where it can be shown that the proposed operation would not cause unacceptable impacts, the Authorized Officer may grant an exception based on any of the factors listed below:

- a. If alternative placement of well pads would enable the operator to use areas that have been previously disturbed.
- b. If alternative placement of well pads would minimize the need for new road construction.
- c. If there is a demonstrated reduction in the impacts to resources.
- d. If there is a valid safety concern.
- e. If the requirement of 2-mile spacing would preclude a lessee/operator from exercising their lease rights where the spacing would locate a well pad outside of the lease.
- f. An exception to the 2-mile placement could be granted if the proponent successfully demonstrates that geologic factors preclude access to a substantial portion of the oil and gas reservoir. An exception to the 2-mile placement would still require the maximum technologically feasible placement of oil and gas wells.

Modification: The Authorized Officer may modify the stipulation as a result of new information if: 1) the protection provided by the stipulation is no longer justified or necessary to meet resource objectives established in the Moab MLP; 2) the protection provided by the stipulation is no longer sufficient to meet resource objectives established in the Moab MLP; or 3) proposed operations would not cause unacceptable impacts. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The modification may be subject to public review for at least a 30-day period.

Waiver: The Authorized Officer may waive the stipulation if it is determined that the factors leading to its inclusion in the lease no longer exist. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The waiver may be subject to public review for at least a 30-day period.

UT-S-382

CONTROLLED SURFACE USE - SOIL (SALINE SOILS WITHIN THE MANCOS SHALE)

No surface-disturbing activities would be allowed during the period from December 1 to May 31. This restriction includes heavy equipment traffic on existing roads associated with drilling operations. This restriction does not apply to PPFAs.

Purpose: To minimize watershed damage including compaction, rutting, and topsoil loss on saline soils derived primarily from the Mancos Shale.

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

Modification: The Authorized Officer may modify the stipulation if it is determined that the project area is not located within saline soils.

Waiver: The Authorized Officer may waive the stipulation if areas mapped as saline soils are verified as not present on the entire leasehold.

UT-S-383

CONTROLLED SURFACE USE - SOIL (SALINE SOILS)

Compensatory mitigation outside the area of impact for any surface disturbance on saline soils is required. No more than one acre of mitigation would be required for each acre of disturbance. Compensatory mitigation outside the area of impact could include: 1) reclamation of non-designated roads and 2) planting and seeding in appropriate areas to improve soil condition.

Purpose: To consider mitigation for saline soils outside the area of impact because it may not be feasible or practical to mitigate impacts to an acceptable level in the same area as the use authorization.

Exception: The Authorized Officer may grant an exception if it can be demonstrated that it would be feasible to fully mitigate the impacts to saline soils onsite.

Modification: The Authorized Officer may modify the stipulation if it is determined that the project area is not located within saline soils.

Waiver: The Authorized Officer may waive the stipulation if areas mapped as saline soils are verified as not present on the entire leasehold.

UT-S-384

CONTROLLED SURFACE USE - SOIL (Steep Slopes)

An erosion control plan approved by the BLM is required on slopes greater than 21 percent prior to construction and maintenance if these activities cannot be avoided. The plan would include the following: 1) an erosion control strategy; and 2) a BLM-accepted access road and well pad survey and design.

Purpose: To minimize soil erosion, sedimentation, soil compaction, runoff and associated loss of soil productivity.

Exception: The Authorized Officer may grant an exception if it is determined that the factors leading to its inclusion in the lease have changed sufficiently such that: 1) the protection provided by the stipulation is no longer justified or necessary to meet resource objectives established in the Moab MLP; or 2) proposed operations would not cause unacceptable impacts. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination.

Modification: The Authorized Officer may modify the stipulation if it is determined that the project area does not contain slopes greater than 21 percent.

Waiver: The Authorized Officer may waive the stipulation if it is verified that steep slopes are not present on the entire leasehold.

UT-S-386

NO SURFACE OCCUPANCY - WATER (Water Resources)

No surface occupancy allowed within public water reserves, 100-year floodplains, and within 500 feet of intermittent and perennial streams, rivers, riparian areas, wetlands, water wells, and springs.

Purpose: To protect public water reserves, 100-year floodplains, intermittent and perennial streams, rivers, springs, wetlands, riparian areas, and water wells.

Exception: The Authorized Officer may grant an exception only for access roads and pipelines if: a) there are no practical alternatives; b) impacts could be fully mitigated; and c) proposed operations would not result in unacceptable impacts.

Modification: The Authorized Officer may modify the stipulation if it is determined that the project area no longer contains a public water reserve, 100-year floodplains, intermittent and perennial streams, rivers, springs, wetlands, riparian areas, or water wells.

Waiver: The Authorized Officer may waive the stipulation if public water reserves, 100-year floodplains, intermittent and perennial streams, rivers, springs, wetlands, riparian areas, or water wells are not present on the entire leasehold.

UT-S-387

NO SURFACE OCCUPANCY - WATER (Ephemeral Streams)

No surface occupancy allowed within 100 feet of ephemeral streams.

Purpose: To protect ephemeral streams.

Exception: The Authorized Officer may grant an exception if: a) there are no practical alternatives; b) impacts could be fully mitigated; and c) proposed operations would not result in unacceptable impacts.

Modification: The Authorized Officer may modify the stipulation if it is determined that the project area does not contain an ephemeral stream.

Waiver: The Authorized Officer may waive the stipulation if ephemeral streams are verified as not present on the entire leasehold.

UT-S-395

CONTROLLED SURFACE USE - OLD SPANISH TRAIL (High Potential Sites and Segments)

A visual assessment of lands within 2-miles of three high potential sites along the OSNHT (Kane Springs, Looking Glass Rock, and Colorado River Crossing near Moab) is required. A proposed mineral operation must not attract the attention of the casual observer from the OSNHT. A visual assessment of lands within 2-miles of two high potential segments along the OSNHT (Moab Trail and Mule Shoe) is required. A proposed mineral operation would not result in long-term impairment of the OSNHT viewed from the perspective of the casual observer from the OSNHT. A visual assessment of lands within 2-miles of the south side of the Blue Hills high potential segment along the OSNHT is required. A proposed mineral operation would not result in long-term impairment of the OSNHT viewed from the perspective of the casual observer from the OSNHT. The existing Class B roads that cross the stipulated area could be utilized as a corridor for the transportation of potash (either by pipeline or truck) from a PLA to a PPFA and are not subject to this stipulation.

Purpose: To protect the setting along high potential sites and segments of the OSNHT.

Exception: The Authorized Officer may grant an exception if the proposed project is not within view of a high potential site or segment as stipulated.

Modification: The Authorized Officer may modify the stipulation to match any changes based on updated information.

Waiver: The Authorized Officer may waive the stipulation if it is determined that high potential sites and segments of the OSNHT do not exist within the lease area.

UT-S-398

CONTROLLED SURFACE USE - BLM SENSITIVE PLANT HABITAT

A survey must be conducted by a qualified botanist within the habitats for the following plants: Alcove rock daisy, Canyonlands lomatium, Cisco milkvetch, Entrada rushpink, Jane's

globemallow, Paradox breadroot, Stage station milkvetch, and Trotter's oreoxsis. Plants will be avoided where identified by surveys. Cisco milkvetch plants identified through surveys would be avoided by 300 feet.

Purpose: To protect BLM sensitive plants.

Exception: The Authorized Officer may grant an exception if it is determined that the factors leading to its inclusion in the lease have changed sufficiently such that: 1) the protection provided by the stipulation is no longer justified or necessary to meet resource objectives established in the Moab MLP; or 2) proposed operations would not cause unacceptable impacts. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination.

Modification: The Authorized Officer may modify the stipulation as a result of new information if: 1) the protection provided by the stipulation is no longer justified or necessary to meet resource objectives established in the Moab MLP; 2) the protection provided by the stipulation is no longer sufficient to meet resource objectives established in the Moab MLP; or 3) proposed operations would not cause unacceptable impacts. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The modification may be subject to public review for at least a 30-day period.

Waiver: The Authorized Officer may waive the stipulation if it is determined that the factors leading to its inclusion in the lease no longer exist. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The waiver may be subject to public review for at least a 30-day period.

UT-S-399

CONTROLLED SURFACE USE - VEGETATION (Sagebrush/Steppe Habitat)

Mineral operations are subject to the following requirements:

1. Multiple wells per pad as appropriate.
2. Well pads would be placed no closer than 2-miles apart.
3. Oil and Gas: Production facilities would be co-located and designed to minimize surface impacts. Pipelines and utilities would be placed within or immediately adjacent to existing roads.
4. Limit unreclaimed surface disturbance to no more than 15 acres per well pad (including associated facilities, roads, pipelines, and utilities) following interim reclamation.
5. Extensive interim reclamation of roadway disturbance and reclamation of well pads to minimize long-term surface disturbance.
6. Final reclamation fully restoring the original landform. Travel routes would be restored to their original character.
7. This stipulation would allow for geophysical operations.
8. Compensatory mitigation outside the area of impact could be required to minimize impacts to resources.

Purpose: To minimize the amount of surface disturbance and related impacts resulting from mineral development in areas with sensitive resources

Exception: Where it can be shown that the proposed operation would not cause unacceptable impacts, the Authorized Officer may grant an exception based on any of the factors listed below:

- a. If alternative placement of well pads would enable the operator to use areas that have been previously disturbed.
- b. If alternative placement of well pads would minimize the need for new road construction.
- c. If there is a demonstrated reduction in the impacts to resources.
- d. If there is a valid safety concern.
- e. If the requirement of 2-mile spacing would preclude a lessee/operator from exercising their lease rights where the spacing would locate a well pad outside of the lease.
- f. An exception to the 2-mile placement could be granted if the proponent successfully demonstrates that geologic factors preclude access to a substantial portion of the oil and gas reservoir. An exception to the 2-mile placement would still require the maximum technologically feasible placement of oil and gas wells.

Modification: The Authorized Officer may modify the stipulation as a result of new information if: 1) the protection provided by the stipulation is no longer justified or necessary to meet resource objectives established in the Moab MLP; 2) the protection provided by the stipulation is no longer sufficient to meet resource objectives established in the Moab MLP; or 3) proposed operations would not cause unacceptable impacts. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The modification may be subject to public review for at least a 30-day period.

Waiver: The Authorized Officer may waive the stipulation if it is determined that the factors leading to its inclusion in the lease no longer exist. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The waiver may be subject to public review for at least a 30-day period.

UT-S-403

NO SURFACE OCCUPANCY - VISUAL RESOURCES SCENIC DRIVING CORRIDORS

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).

Purpose: To protect high quality visual resources along State Scenic Backways and Byways.

Exception: 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.

Modification: The Authorized Officer may modify the stipulation as a result of new information if: 1) the protection provided by the stipulation is no longer justified or necessary to meet resource objectives established in the Moab MLP; 2) the protection provided by the stipulation is no longer sufficient to meet resource objectives established in the Moab MLP; or 3) proposed operations would not cause unacceptable impacts. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The modification may be subject to public review for at least a 30-day period.

Waiver: The Authorized Officer may waive the stipulation if it is determined that the factors leading to its inclusion in the lease no longer exist. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and

may be required to consult with other government agencies and/or the public in order to make this determination. The waiver may be subject to public review for at least a 30-day period.

UT-S-404

NO SURFACE OCCUPANCY - VISUAL RESOURCES VRM II AREAS

No surface occupancy allowed within VRM Class II areas.

Purpose: To protect high quality visual resources.

Exception: The Authorized Officer may grant an exception if it could be demonstrated using visual analysis that the proposed operation would not result in long-term visible impairment from key observation points as defined by the BLM VRM Manual.

Modification: The Authorized Officer may modify the stipulation as a result of new information if: 1) the protection provided by the stipulation is no longer justified or necessary to meet resource objectives established in the Moab MLP; 2) the protection provided by the stipulation is no longer sufficient to meet resource objectives established in the Moab MLP; or 3) proposed operations would not cause unacceptable impacts. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The modification may be subject to public review for at least a 30-day period.

Waiver: The Authorized Officer may waive the stipulation if it is determined that the factors leading to its inclusion in the lease no longer exist. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The waiver may be subject to public review for at least a 30-day period.

UT-S-407

NO SURFACE OCCUPANCY - VISUAL RESOURCES – RIMLANDS OF THE GREEN AND COLORADO RIVERS

No surface occupancy allowed within a 1-mile setback from the rims of the Colorado and Green Rivers.

Purpose: To protect high quality visual resources along the rims of the Green and Colorado Rivers.

Exception: The Authorized Officer may grant an exception if a viewshed analysis indicates no impairment of the visual resources of the rims from either the rims or from the rivers.

Modification: The Authorized Officer may modify the stipulation as a result of new information if: 1) the protection provided by the stipulation is no longer justified or necessary to meet resource objectives established in the Moab MLP; 2) the protection provided by the stipulation is no longer sufficient to meet resource objectives established in the Moab MLP; or 3) proposed operations would not cause unacceptable impacts. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The modification may be subject to public review for at least a 30-day period.

Waiver: The Authorized Officer may waive the stipulation if it is determined that the factors leading to its inclusion in the lease no longer exist. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The waiver may be subject to public review for at least a 30-day period.

UT-S-408

CONTROLLED SURFACE USE - AUDITORY MANAGEMENT – SOUNDSCAPE (LANDS BORDERING ARCHES AND CANYONLANDS NATIONAL PARKS)

Operators are required to comply with the following within 6.1-miles (9,800 meters) of National Parks:

Noise mitigation efforts will be implemented with a maximum level of 55 decibels for production equipment (measured from the direction of the Park at a distance of 350 feet from source). These sound levels could be achieved by replacement diesel engine exhaust silencers (mufflers) noise barriers, and other noise control measures.

Purpose: To protect the soundscapes of the National Parks.

Exception: None

Modification: The Authorized Officer may modify the stipulation as a result of new information if: 1) the protection provided by the stipulation is no longer justified or necessary to meet resource objectives established in the Moab MLP; 2) the protection provided by the stipulation is no longer sufficient to meet resource objectives established in the Moab MLP; or 3) proposed operations would not cause unacceptable impacts. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The modification may be subject to public review for at least a 30-day period.

Waiver: The Authorized Officer may waive the stipulation if it is determined that the factors leading to its inclusion in the lease no longer exist. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The waiver may be subject to public review for at least a 30-day period.

UT-S-411

TIMING LIMITATION - WILDLIFE (Pronghorn Fawning Habitat)

No surface-disturbing activities or occupancy allowed within pronghorn fawning habitat from May 1 to June 15.

Purpose: To minimize stress and disturbance during critical pronghorn birthing time.

Exception: The Authorized Officer may grant an exception if the operator submits a plan that demonstrates impacts from the proposed action can be adequately mitigated or if it is determined the habitat is not being utilized for fawning in any given year. This stipulation does not apply to the maintenance and operation of existing and ongoing facilities.

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

Waiver: The Authorized Officer may waive the stipulation if the fawning habitat is determined to be unsuitable or unoccupied and there is no reasonable likelihood of future use of the fawning habitat.

UT-S-412

CONTROLLED SURFACE USE - WILDLIFE (Desert Bighorn Sheep Lambing and Rutting Habitat)

Drilling operations and permanent facilities would not be allowed within desert bighorn sheep lambing and rutting habitat. Geophysical operations and the construction of roads and pipelines would be allowed during specified timeframes as follows:

1. Geophysical exploration would be allowed throughout the lambing and rutting habitat (except for source points in Mineral, Hell Roaring, Spring, and Ten Mile Canyons and 100 feet from their rims) if it occurred between June 16 and October 15 or December 15 through March 31. Receiver lines could be placed throughout the habitat.
2. Road construction necessary to exercise mineral lease rights and where no other access is feasible would be allowed throughout the habitat if the construction occurred between June 16 and October 15 or December 15 through March 31. Roads constructed for minerals within this habitat would not be available for public use. Furthermore, these roads would be reclaimed to a natural state at the conclusion of the project.
3. Pipeline construction and placement would be allowed throughout the lambing and rutting habitat if construction occurred between June 16 and October 15 or December 15 through March 31.

Purpose: To minimize disturbance within desert bighorn lambing and rutting habitat.

Exception: The Authorized Officer may grant an exception if it is determined that the factors leading to its inclusion in the lease have changed sufficiently such that: 1) the protection provided by the stipulation is no longer justified or necessary to meet resource objectives established in the Moab MLP; or 2) proposed operations would not cause unacceptable impacts. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination.

Modification: The Authorized Officer may modify the stipulation if a portion of the area is 1) not being used as desert bighorn lambing or rutting habitat and, 2) if habitat is being utilized outside of stipulation boundaries for lambing and rutting and needs to be protected.

Waiver: A waiver may be granted if the habitat is determined as unsuitable for lambing or rutting and there is no reasonable likelihood of future use as desert bighorn sheep lambing and/or rutting habitat.

UT-S-413

CONTROLLED SURFACE USE - WILDLIFE (Desert Bighorn Sheep and Deer and Elk Crucial Winter Habitat)

Mineral operations are subject to the following requirements:

1. Multiple wells per pad as appropriate.
2. Well pads would be placed no closer than 2-miles apart.
3. Oil and Gas: Production facilities would be co-located and designed to minimize surface impacts. Pipelines and utilities would be placed within or immediately adjacent to existing roads.
4. Limit unreclaimed surface disturbance to no more than 15 acres per well pad (including associated facilities, roads, pipelines, and utilities) following interim reclamation.
5. Extensive interim reclamation of roadway disturbance and reclamation of well pads to minimize long-term surface disturbance.
6. Final reclamation fully restoring the original landform. Travel routes would be restored to their original character.
7. This stipulation would allow for geophysical operations.

8. Compensatory mitigation outside the area of impact could be required to minimize impacts to resources.

Purpose: To minimize the amount of surface disturbance and related impacts resulting from mineral development in areas with sensitive resources

Exception: Where it can be shown that the proposed operation would not cause unacceptable impacts, the Authorized Officer may grant an exception based on any of the factors listed below:

- a. If alternative placement of well pads would enable the operator to use areas that have been previously disturbed.
- b. If alternative placement of well pads would minimize the need for new road construction.
- c. If there is a demonstrated reduction in the impacts to resources.
- d. If there is a valid safety concern.
- e. If the requirement of 2-mile spacing would preclude a lessee/operator from exercising their lease rights where the spacing would locate a well pad outside of the lease.
- f. An exception to the 2-mile placement could be granted if the proponent successfully demonstrates that geologic factors preclude access to a substantial portion of the oil and gas reservoir. An exception to the 2-mile placement would still require the maximum technologically feasible placement of oil and gas wells.

Modification: The Authorized Officer may modify the stipulation as a result of new information if: 1) the protection provided by the stipulation is no longer justified or necessary to meet resource objectives established in the Moab MLP; 2) the protection provided by the stipulation is no longer sufficient to meet resource objectives established in the Moab MLP; or 3) proposed operations would not cause unacceptable impacts. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The modification may be subject to public review for at least a 30-day period.

Waiver: The Authorized Officer may waive the stipulation if it is determined that the factors leading to its inclusion in the lease no longer exist. The Authorized Officer may require additional plans of development, surveys, mitigation proposals, or environmental analysis, and may be required to consult with other government agencies and/or the public in order to make this determination. The waiver may be subject to public review for at least a 30-day period.

UT-S-414

TIMING LIMITATION - WILDLIFE - DEER AND ELK CRUCIAL WINTER HABITAT

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.

Purpose: To minimize stress and disturbance to deer and elk during critical winter months.

Exception: The Authorized Officer may grant an exception if the operator submits a plan that demonstrates impacts from the proposed action can be adequately mitigated or it is determined the habitat is not being utilized during the winter period for any given year.

Modification: 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.

Waiver: 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.

The following lease notices are required by the MLP, RMP, and BLM policy requirements:

UT-LN-02

CRUCIAL WINTER MULE DEER AND ELK HABITAT

The lessee/operator is given notice that lands in this lease have been identified as containing crucial mule deer and/or elk winter habitat. Exploration, drilling and other development activities would be restricted from December 1 through April 30 to protect crucial winter range. Modifications to the Surface Use Plan of Operations may be required in accordance with section 6 of the lease terms and 43CFR3101.1-2.

UT-LN-11

CRUCIAL ELK CALVING AND DEER FAWNING HABITAT

The lessee/operator is given notice that lands in this lease have been identified as containing crucial elk calving or deer fawning habitat. Exploration, drilling and other development activities may be restricted from May 15 through June 30 to protect calving / fawning. Modifications may be required in the Surface Use Plan of Operations including seasonal timing restrictions to protect the species and its habitat.

UT-LN-25

WHITE-TAILED AND GUNNISON PRAIRIE DOG

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

UT-LN-40

GOLDEN EAGLE HABITAT

The lessee/operator is given notice that lands in this lease have been identified as containing Golden Eagle Habitat. Modifications to the Surface Use Plan of Operations may be required in order to protect the Golden Eagle and/or habitat from surface disturbing activities in accordance with Section 6 of the lease terms, Endangered Species Act, and 43 CFR 3101.1-2.

UT-LN-44

RAPTORS

Appropriate seasonal and spatial buffers shall be placed on all known raptor nests in accordance with Utah Field Office Guidelines for Raptor Protection from Human and Land use Disturbances (USFWS 2002) and Best Management Practices for Raptors and their Associated Habitats in Utah (BLM 2006). All construction related activities will not occur within these buffers if pre-construction monitoring indicates the nests are active, unless a site-specific evaluation for active nests is completed prior to construction and if a BLM wildlife biologist, in consultation with USFWS and UDWR, recommends that activities may be permitted within the buffer. The BLM will coordinate with the USFWS and UDWR and have a recommendation within 3-5 days of notification. Any construction activities authorized within a protective (spatial and seasonal) buffer for raptors will require an on-site monitor. Any indication that activities are adversely affecting the raptor and/or its' young the on-site monitor will suspend activities and contact the BLM Authorized Officer immediately. Construction may occur within the buffers of inactive

nests. Construction activities may commence once monitoring of the active nest site determines that fledglings have left the nest and are no longer dependent on the nest site. Modifications to the Surface Use Plan of Operations may be required in accordance with section 6 of the lease terms and 43CFR3101.1-2.

UT-LN-45
MIGRATORY BIRD

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

UT-LN-49
UTAH SENSITIVE SPECIES

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

UT-LN-51
SPECIAL STATUS PLANTS: NOT FEDERALLY LISTED

The lessee/operator is given notice that lands in this lease have been identified as containing special status plants, not federally listed, and their habitats. Modifications to the Surface Use Plan of Operations may be required in order to protect the special status plants and/or habitat from surface disturbing activities in accordance with Section 6 of the lease terms, Endangered Species Act, and 43 CFR 3101.1-2.

UT-LN-53
RIPARIAN AREAS

The lessee/operator is given notice that this lease has been identified as containing riparian areas. No surface use or otherwise disruptive activity allowed within 100 meters of riparian areas unless it can be shown that (1) there is no practicable alternative; (2) that all long-term impacts are fully mitigated; or (3) that the construction is an enhancement to the riparian areas. Modifications to the Surface Use Plan of Operations may be required in accordance with section 6 of the lease terms and 43CFR3101.1-2.

UT-LN-56
DRINKING WATER SOURCE PROTECTION ZONE

This lease (or a portion thereof) is within a public Drinking Water Source Protection zone.

Before application for a permit to drill (APD) submittal or any proposed surface-disturbing activity, the lessee/operator must contact the public water system manager to determine any zoning ordinances, best management or pollution prevention measures, or physical controls that may be required within the protection zones. Drinking Water Source Protection plans are developed by the public water systems under the requirements of R309-600. Drinking Water Source Protection for Ground-Water Sources. (Utah Administrative Code). There may also be county ordinances in place to protect the source protection zones, as required by Section 19-4-113 of the Utah Code.

Incorporated cities and towns may also protect their drinking water sources using Section 10-8-15 of the Utah Code. This part of the Code gives cities and towns the extraterritorial authority to enact ordinances to protect a source of drinking water ... "For 15 miles above the point from which it is taken and for a distance of 300 feet on each side of such stream..." Class I cities (greater than 100,000 population) are granted authority to protect their entire watersheds. Some public water sources qualify for monitoring waivers which reduce their monitoring requirements for pesticides and volatile organic chemicals (VOCs). Exploration, drilling, and production activities within Source Protection zone 3 could jeopardize these waivers, thus requiring increased monitoring. Contact the public water system to determine what effect your activities may have on their monitoring waivers. Please be aware of other State rules to protect surface and ground water: the Utah Division of Water Quality Rules R317 Water Quality Rules; and Rules of the Utah Division of Oil, Gas and Mining, Utah Oil and Gas Conservation Rules R649.

At the time of development, drilling operators will additionally conform to the operational regulations in Onshore Oil & Gas Order No. 2 (which requires the protection and isolation of all usable quality waters, $\leq 10,000$ mg/L Total Dissolved Solids), Onshore Oil and Gas Order No. 7 (which prescribes measures required for the handling of produced water to insure the protection of surface and ground water sources) and the Surface Operating Standards and Guidelines for Oil and Gas Development, The Gold Book, Fourth Edition-Revised 2007 (which provides information and requirements for conducting environmentally responsible oil and gas operations).

Additional mitigation measures may be necessary to prevent adverse impacts from oil and gas exploration and development activities. Mitigation measures may include submitting an erosion control plan with best management practices (BMPs) that address rigorous interim reclamation which might include surface roughening, vegetative buffer strips, etc.; and sediment control through the use of sediment logs, silt fences, erosion control blankets, outlet/inlet protection of water control features such as culverts or diversion ditches, sediment traps, run on/run off pad design features. If project activities are close to sensitive areas or water sources a semi or closed-loop drilling system should be required.

UT-LN-57

PUBLIC WATER RESERVE

The lessee/operator is given notice that lands in this lease have been identified as a designated Public Water Reserve. Surface occupancy or use is subject to the Public Water Reserve Executive Order No. 107. Modification to the Surface Use Plan of Operations may be required for the protection of the reserve up to and including no surface occupancy or use. Protection of a designated public water reserve as discussed in Public Water Reserve Executive Order No. 107. This limitation does not apply to operations and maintenance of producing wells.

UT-LN-60
STEEP SLOPES

The lessee/operator is given notice that this lease has been identified as containing steep slopes. No surface use or otherwise disruptive activity allowed on slopes in excess of 30 percent without written permission from the Authorized Officer. Modifications to the Surface Use Plan of Operations may be required in accordance with section 6 of the lease terms and 43CFR3101.1-2.

UT-LN-61
SEVERE SOIL EROSION & STEEP SLOPES

The lessee/operator is given notice that the lands in this lease have been identified as having critical to severe soil erosion conditions and slopes exceeding 40%. The authorized officer may prohibit surface disturbing activities during wet and muddy periods to minimize watershed damage. Modifications to the Surface Use Plan of Operations may also be required. This limitation does not apply to operation and maintenance of producing wells.

UT-LN-65
OLD SPANISH TRAIL

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

UT-LN-67
HISTORICAL AND CULTURAL RESOURCE VALUES

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

UT-LN-68

NOTIFICATION & CONSULTATION REGARDING CULTURAL RESOURCES

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

UT-LN-70

HIGH POTENTIAL FOR CULTURAL RESOURCE OCCURRENCE

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

UT-LN-72

HIGH POTENTIAL PALEONTOLOGICAL RESOURCES

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

UT-LN-96

AIR QUALITY MITIGATION MEASURES

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

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

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

UT-LN-99

REGIONAL OZONE FORMATION CONTROLS

To mitigate any potential impact oil and gas development emissions may have on regional ozone formation, the following Best Management Practices (BMPs) would be required for any development projects:

- Tier II or better drilling rig engines
- Stationary internal combustion engine standard of 2g NOx/bhp-hr for engines <300HP and 1g NOx/bhp-hr for engines >300HP
- Low bleed or no bleed pneumatic pump valves
- Dehydrator VOC emission controls to +95% efficiency

Tank VOC emission controls to +95% efficiency

UT-LN-100

FRAGILE SOILS – MANCOS SHALE

The lessee is given notice that these parcels fall within areas known to have Mancos shale and therefore operations and surface-disturbing activities are not allowed during **December 1 to May 31** to minimize watershed damage including compaction, rutting, and topsoil loss on saline soils derived from the Mancos Shale. This restriction includes heavy equipment traffic on existing roads associated with drilling operations. If the operator can provide a plan of development demonstrating that the proposed action would be properly designed and constructed to support the anticipated types and levels of use the project might be allowed. Roads must be designed to meet BLM road standards for drainage control and surfaced to support heavy equipment and tractor trailers. Adjustments to the timing restriction could be considered by the authorized officer on a case-by-case basis, depending on current soil and weather conditions. Modifications to the Surface Use Plan of Operations may be required in accordance with section 6 of the lease terms and 43CFR3101.1-2.

UT-LN-102

AIR QUALITY ANALYSIS

The lessee/operator is given notice that prior to project-specific approval, additional air quality analyses may be required to comply with the National Environmental Policy Act, Federal Land Policy Management Act, and/or other applicable laws and regulations. Analyses may include dispersion modeling and/or photochemical modeling for deposition and visibility impacts analysis, control equipment determinations, and/or emission inventory development. These analyses may result in the imposition of additional project-specific air quality control measures.

UT-LN-116

HELIUM LEASE NOTICE

The Lessee/Operator is given notice that this parcel may contain helium reserves. Pursuant to 43 CFR 3100.1, the ownership of and the right to extract helium from all gas produced from lands leased or otherwise disposed of under the Mineral Leasing Act of 1920, as amended and supplemented, (30 U.S.C. 181 *et seq.*) have been reserved to the United States and helium is specifically excluded from this oil and gas lease. Helium can be extracted only by the holder of a helium contract approved by the Bureau of Land Management (BLM). An agreement for development of the helium resource may be initiated between the holder of any helium contract issued and the Lessee/Operator of the oil and gas lease. Cooperation between the oil and gas lessee and holder of a helium contract is essential to the proper management of both the oil and

gas and helium resources.

UT-LN-125

LIGHT AND SOUND SENSITIVE RESOURCES

The lessee/operator may be required to utilize best management practices and the best available technology in order to minimize/mitigate noise and light pollution impacts. In accordance with section 6 of the lease terms and 43 CFR 3101.1-2, modifications to Surface Use Plan of Operations may be required to comply with the following decisions in the Resource Management Plans, Min 6 - Monticello Field Office RMP and Min 12 - Moab Field Office RMP to "encourage conservation of sensitive resource values" the lessee/operator may be required to take measures to minimize the impacts to the values of silence and night skies to visitors of parks, monuments, river corridors and other destinations where light and/or sound impacts would mar the visitor experience. For example, the lessee/operator may be required to install multi-cylinder pumps, hospital sound reducing mufflers, and/or place exhaust systems in manner that directs noise away from or reduces noise at the area. Additionally, the lessee/operator may be required to utilize such methods such as limiting the height of light poles, limiting wattage intensity, constructing light shields and/or adhering to prescribed restrictions on the timing for conducting artificially illuminated operations in order to minimize/mitigate light pollution impacts. However, the above described requirements will not be applicable when their implementation would adversely affect human health and safety.

UT-LN-128

FLOODPLAIN MANAGEMENT

The lessee/operator is given notice that, in accordance with Executive Order 11988, to avoid adverse impact to floodplains 1) facilities should be located outside the 100 year floodplain, or 2) would be minimized or mitigated by modification of surface use plans within floodplains present within the lease.

UT-LN-131

GREATER SAGE-GROUSE – NET CONSERVATION GAIN

In Priority and General Habitat Management Areas (PHMA and GHMA) all actions that result in habitat loss and degradation will require mitigation that provides a net conservation gain to the Greater Sage-Grouse (GRSG). Mitigation must account for any uncertainty associated with the effectiveness of the mitigation and will be achieved through avoiding, minimizing and compensating for impacts. Mitigation will be conducted according to the mitigation framework found in Appendix F in the Utah Approved Management Plan Amendment.

UT-LN-132

GREATER SAGE-GROUSE – REQUIRED DESIGN FEATURES

Apply the Required Design Features (RDF)* in Appendix C of the Utah Approved Management Plan Amendment when developing a lease within Priority and General Habitat Management Areas (PHMA and GHMA).

*RDFs may not be required if it is demonstrated through the NEPA analysis that the RDF associated project/activity is:

- Documented to not be applicable to the site-specific conditions of the project/activity (e.g. due to site limitations or engineering considerations). Economic considerations, such as

- increased costs, do not necessarily require that an RDF be varied or rendered inapplicable;
- An alternative RDF, state-implemented conservation measure, or plan-level protection is determined to provide equal or better protection for GRSG or its habitat;
- Provide no additional protection to GRSG or its habitat.

UT-LN-136
AIR QUALITY

The lessee/operator is given notice that prior to project-specific approval, additional air quality analyses may be required to comply with the National Environmental Policy Act, Federal Land Policy and Management Act, and/or other applicable laws and regulations. Analyses may include dispersion modeling for deposition and visibility impacts analysis, control equipment determinations, and/or emission inventory development. These analyses may result in the imposition of additional project-specific air quality control measures.

UT-LN-137
CULTURAL RESOURCES I

The lessee/operator is given notice that measures to mitigate the potential impacts to TCPs or cultural plants identified through consultation may be required. Mitigation would be developed through further consultation with affected groups, which may include measures to maintain the viewshed and intrinsic values, as well as the auditory, visual, and aesthetic settings of the resources.

UT-LN-138
CULTURAL RESOURCES II

The lessee/operator is given notice that a viewshed assessment would be required for those cultural sites that receive a high degree of visitor use or properties of traditional religious and cultural importance to a Native American tribe. If the assessment shows that the project would have adverse effects to the historic properties, the project may require relocation. The Historic Properties Visual Assessment for Effect Determination Worksheet would be utilized for the viewshed assessment.

UT-LN-139
CULTURAL RESOURCES (High Potential for Cultural Sites)

The lessee/operator is given notice that in areas of high potential for cultural site occurrence there is a higher likelihood of encountering cultural resource concerns (i.e., potential adverse effects) that may require archaeological monitoring, ethnographic data collection, data recovery, and mitigation of historic properties in order to exercise lease rights.

UT-LN-140
OLD SPANISH NATIONAL HISTORIC TRAIL

The lessee/operator is given notice that lands in this lease are crossed by the Old Spanish Trail National Historic Trail [Old Spanish Trail Recognition Act of 2002, (Old Spanish Trail PLO 107-325)]. Modifications to the Surface Use Plan of Operations may be required in order to protect the historic integrity of the trail. The Lease Notice would be applied to 2-miles on either side of the trail. Coordination with the National Park Service by the BLM may be necessary.

UT-LN-141

BALD EAGLES (Nest Sites and Winter Roost Areas)

The lessee/operator is given notice that the parcel contains habitat for the bald eagle. To protect bald eagle habitat and avoid negative impacts to the species, actions would be avoided or restricted that may cause stress and disturbance during nesting and rearing of their young. Appropriate measures would depend on whether the action is temporary or permanent, and whether it occurs within or outside the bald eagle breeding or roosting season. A temporary action is completed prior to the following breeding or roosting season, leaving no permanent structures and resulting in no permanent habitat loss. A permanent action continues for more than one breeding or roosting season and/or causes a loss of eagle habitat, or displaces eagles through disturbances, i.e., creation of a permanent structure. Current avoidance and minimization measures include the following:

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

Additional measures may also be employed to avoid or minimize effects to the species between the lease stage and lease development stage.

UT-LN-142

GOLDEN EAGLE (Nest Sites and Territories)

The lessee/operator is given notice that the parcel contains habitat for the golden eagle. In order to protect the golden eagle habitat, nest sites, and nesting territories, actions would be avoided or restricted that may cause stress and disturbance during nesting and rearing of their young. Appropriate measures would depend on whether the action is temporary or permanent and

whether it occurs within or outside the golden eagle breeding season. A temporary action is completed prior to the following breeding or roosting season, leaving no permanent structures and resulting in no permanent habitat loss. A permanent action continues for more than one breeding or roosting season and/or causes a loss of eagle habitat or displaces eagles through disturbances (i.e., creation of a permanent structure). Current avoidance and minimization measures include the following:

1. Surveys would be required prior to operations unless species occupancy and distribution information is complete and available. All surveys must be conducted by qualified individual(s), and be conducted according to protocol.
2. Lease activities would require monitoring throughout the duration of the project.
3. To ensure desired results are being achieved, minimization measures would be evaluated.
4. Temporary activities within 0.5-miles of nest sites would not occur during the breeding season from January 1 to August 31, unless the area has been surveyed according to protocol and determined to be unoccupied.
5. No permanent infrastructure would be placed within 0.5-miles of nest sites.
6. Remove big game carrion to 100 feet from on-lease roadways occurring within golden eagle foraging range.
7. Where technically and economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and eliminate drilling in suitable habitat. Utilize directional drilling to avoid direct impacts to large cottonwood gallery riparian habitats. Ensure that such direction drilling does not intercept or degrade alluvial aquifers.

Additional measures may also be employed to avoid or minimize effects to the species between the lease stage and lease development stage.

UT-LN-143

RAPTORS

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

UT-LN-144

MIGRATORY BIRDS

The lessee/operator is given notice that surveys for nesting migratory birds may be required during migratory bird breeding season (April 1 to July 31) whenever surface disturbances and/or occupancy is proposed in association with mineral exploration and development within priority habitats. Surveys should focus on identified priority bird species in Utah. Field surveys will be conducted as determined by the Authorized Officer of the BLM. Based on the result of the field survey, the Authorized Officer will determine appropriate buffers and timing limitations.

UT-LN-145

FERRUGINOUS HAWK AND BURROWING OWL HABITAT

The lessee/operator is given notice that no surface disturbances would be conducted during the breeding and nesting season (March 1 to August 31 for burrowing owl and March 1 to August 1 for ferruginous hawk) within spatial buffers (0.25-mile for burrowing owl and 0.5-mile for ferruginous hawk) of known nesting sites.

UT-LN-146

WHITE-TAILED PRAIRIE DOG/GUNNISON PRAIRIE DOG HABITAT

The lessee/operator is given notice that no surface-disturbing activities within 660 feet (200 meters) of active prairie dog colonies identified within prairie dog habitat would be allowed. No permanent aboveground facilities are allowed within the 660-foot buffer.

UT-LN-147

KIT FOX HABITAT

The lessee/operator is given notice that no surface disturbances would be allowed within 660 feet (200 meters) of an occupied natal kit fox den.

T&E 03

ENDANGERED FISH OF THE UPPER COLORADO RIVER DRAINAGE BASIN

The Lessee/Operator is given notice that the lands in this parcel contain Critical Habitat for the Colorado River fish (bonytail, humpback chub, Colorado pike minnow, and razorback sucker) listed as endangered under the Endangered Species Act, or these parcels have watersheds that are tributary to designated habitat. Critical habitat was designated for the four endangered Colorado River fishes on March 21, 1994(59 FR 13374-13400). Designated critical habitat for all the endangered fishes includes those portions of the 100-year floodplain that contain primary constituent elements necessary for survival of the species. Avoidance or use restrictions may be placed on portions of the lease. The following avoidance and minimization measures have been designed to ensure activities carried out on the lease are in compliance with the Endangered Species Act. Integration of and adherence to these measures will facilitate review and analysis of any submitted permits under the authority of this lease. Following these measures could reduce the scope of Endangered Species Act, Section 7 consultation at the permit stage. Current avoidance and minimization measures include the following:

1. Surveys will be required prior to operations unless species occupancy and distribution information is complete and available. All surveys must be conducted by qualified individual(s).
2. Lease activities will require monitoring throughout the duration of the project. To ensure desired results are being achieved, minimization measures will be evaluated and, if necessary, Section 7 consultation reinitiated.

3. Water production will be managed to ensure maintenance or enhancement of riparian habitat.
4. Avoid loss or disturbance of riparian habitats.
5. Where technically and economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and eliminate drilling in suitable riparian habitat. Ensure that such directional drilling does not intercept or degrade alluvial aquifers.
6. Conduct watershed analysis for leases in designated critical habitat and overlapping major tributaries in order to determine toxicity risk from permanent facilities.
7. Implement Appendix B (Hydrologic Considerations for Pipeline Crossing Stream Channels, Technical Note 423).
8. Drilling will not occur within 100 year floodplains of rivers or tributaries to rivers that contain listed fish species or critical habitat.
9. In areas adjacent to 100-year flood plains, particularly in systems prone to flash floods, analyze the risk for flash floods to impact facilities, and use closed loop drilling, and pipeline burial or suspension according to Appendix B (Hydrologic Considerations for Pipeline Crossing Stream Channels, Technical Note 423, to minimize the potential for equipment damage and resulting leaks or spills.

Water depletions from *any* portion of the Upper Colorado River drainage basin above Lake Powell are considered to adversely affect or adversely modify the critical habitat of the four resident endangered fish species, and must be evaluated with regard to the criteria described in the Upper Colorado River Endangered Fish Recovery Program. Formal consultation with USFWS is required for all depletions. All depletion amounts must be reported to BLM. Additional measures to avoid or minimize effects to the species may be developed and implemented in consultation with the U.S. Fish and Wildlife Service between the lease sale stage and lease development stage to ensure continued compliance with the ESA.

T&E 05 LISTED PLANT SPECIES

The Lessee/Operator is given notice that the lands in this parcel contain suitable habitat for federally listed plant species under the Endangered Species Act. The following avoidance and minimization measures have been developed to facilitate review and analysis of any submitted permits under the authority of this lease

1. Site inventories:
 - a. Must be conducted to determine habitat suitability,
 - b. Are required in known or potential habitat for all areas proposed for surface disturbance prior to initiation of project activities, at a time when the plant can be detected, and during appropriate flowering periods,
 - c. Documentation should include, but not be limited to individual plant locations and suitable habitat distributions, and
 - d. All surveys must be conducted by qualified individuals.
2. Lease activities will require monitoring throughout the duration of the project. To ensure desired results are being achieved, minimization measures will be evaluated and, if necessary, Section 7 consultation reinitiated.
3. Project activities must be designed to avoid direct disturbance to populations and to individual plants:

- a. Designs will avoid concentrating water flows or sediments into plant occupied habitat.
 - b. Construction will occur down slope of plants and populations where feasible; if well pads and roads must be sited upslope, buffers of 300 feet minimum between surface disturbances and plants and populations will be incorporated.
 - c. Where populations occur within 300 ft. of well pads, establish a buffer or fence the individuals or groups of individuals during and post-construction.
 - d. Areas for avoidance will be visually identifiable in the field, e.g., flagging, temporary fencing, rebar, etc.
 - e. For surface pipelines, use a 10 foot buffer from any plant locations:
 - f. If on a slope, use stabilizing construction techniques to ensure the pipelines don't move towards the population.
4. For riparian/wetland-associated species, e.g. Ute ladies-tresses, avoid loss or disturbance of riparian habitats.
 5. Ensure that water extraction or disposal practices do not result in change of hydrologic regime.
 6. Limit disturbances to and within suitable habitat by staying on designated routes.
 7. Limit new access routes created by the project.
 8. Place signing to limit ATV travel in sensitive areas.
 9. Implement dust abatement practices near occupied plant habitat.
 10. All disturbed areas will be re-vegetated with native species comprised of species indigenous to the area.
 11. Post construction monitoring for invasive species will be required.
 12. Where technically and economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and eliminate drilling in plant habitat. Ensure that such directional drilling does not intercept or degrade alluvial aquifers.
 13. Lease activities will require monitoring throughout the duration of the project. To ensure desired results are being achieved, minimization measures will be evaluated and, if necessary, Section 7 consultation reinitiated.

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

T&E 06 MEXICAN SPOTTED OWL

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

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

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

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

f. Limit new access routes created by the project.

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

T&E 07

SOUTHWESTERN WILLOW FLYCATCHER

The Lessee/Operator is given notice that the lands in this parcel contains riparian habitat that falls within the range for southwestern willow flycatcher, a federally listed species. Avoidance or use restrictions may be placed on portions of the lease. Application of appropriate measures will depend whether the action is temporary or permanent, and whether it occurs within or outside the nesting season. A temporary action is completed prior to the following breeding season leaving no permanent structures and resulting in no permanent habitat loss. A permanent action continues for more than one breeding season and/or causes a loss of habitat or displaces flycatchers through disturbances, i.e. creation of a permanent structure. The following avoidance and minimization measures have been designed to ensure activities carried out on the lease are in compliance with the Endangered Species Act. Integration of, and adherence to these measures, will facilitate review and analysis of any submitted permits under the authority of this lease. Following these measures could reduce the scope of Endangered Species Act, Section 7 consultation at the permit stage. Current avoidance and minimization measures include the following:

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

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

T&E 23

COLORADO RIVER ENDANGERED FISH

The lessee/operator is given notice in order to minimize effects to critical habitats of endangered fish in the Colorado and Green Rivers, surface-disturbing activities within the 100-year floodplain of the Colorado River, Green River, and all associated back waters would not be allowed. Other avoidance and minimization measures include:

- Surveys would be required prior to operations unless species occupancy and distribution information is complete and available. All surveys must be conducted by qualified individuals. Lease activities would require monitoring throughout the duration of the project.
- To ensure desired results are being achieved, minimization measures would be evaluated and, if necessary, Section 7 consultation reinitiated.
- Water production would be managed to ensure maintenance or enhancement of riparian habitat.
- Avoid loss or disturbance of riparian habitats.
- Conduct watershed analysis for leases in designated critical habitat and overlapping major tributaries in order to determine toxicity risk from permanent facilities.
- Implement the Utah Oil and Gas Pipeline Crossing Guidance. In areas adjacent to 100-year floodplains, particularly in systems prone to flash floods, analyze the risk for flash floods to impact facilities, and use closed loop drilling, and pipeline burial or suspension according to the Utah Oil and Gas Pipeline Crossing Guidance to minimize the potential for equipment damage and resulting leaks or spills.
- Water depletions from any portions of the Upper Colorado River drainage basin are considered to adversely affect and adversely modify the critical habitat of the endangered fish species (bonytail, Colorado pikeminnow, humpback chub, and razorback sucker). Section 7 consultation would be completed with the U.S. Fish and Wildlife Service (USFWS) prior to any such water depletions.
- 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).

- 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.
3. Screen all pump intakes with 3/32" mesh material
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).
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:

Northeastern Region 152 East 100 North, Vernal, UT 84078 Phone: 435-781-9453

Southeastern Region 475 West Price River Drive, Suite C, Price, UT 84501 Phone: 435-636-0260

T&E 25

MEXICAN SPOTTED OWL

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

- Surveys would be required prior to implementation of the proposed action. All surveys must be conducted by qualified individual(s) acceptable to the BLM. Assess habitat suitability for both nesting and foraging using accepted habitat models in conjunction with field reviews. Apply the conservation measures below if project activities occur within 0.5-mile of suitable owl habitat. Determine potential effects of actions to owls and their habitat.
- Document type of activity, acreage and location of direct habitat impacts, type and extent of indirect impacts relative to location of suitable owl habitat. Document if action is temporary or permanent. Activities may require monitoring throughout the duration of the project. To ensure desired results are being achieved, minimization measures would be evaluated, and, if necessary, Section 7 consultation reinitiated. Any activity that includes water production should be managed to ensure maintenance of enhancement of riparian habitat. Where technically and economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and eliminate drilling in canyon habitat suitable for MSO nesting.

For all temporary actions that may impact owls or suitable habitat:

1. If the action occurs entirely outside of the owl breeding season from March 1 through August 31, and leaves no permanent structure or permanent habitat disturbance, the action can proceed without an occupancy survey.

2. If the action would occur during a breeding season, a survey for owls is required prior to commencing the activity. If owls are found, the activity should be delayed until outside of the breeding season.
3. Rehabilitate access routes created by the project through, such means as raking out scars, re-vegetation, gating access points, etc.

For all permanent actions that may impact owls or suitable habitat:

1. Survey two consecutive years for owls, according to accepted protocol prior to commencing activities.
2. If owls are found, no disturbing actions would occur within 0.5-miles of an identified site. If nest site is unknown, no activity would occur within the designated current and historic Protected Activity Center (PAC).
3. Avoid permanent structures within 0.5-mile of suitable habitat unless surveyed and not occupied.
4. Reduce noise emissions (e.g., use hospital-grade mufflers) to 45 dBA at 0.5-mile from suitable habitat, including canyon rims. Placement of permanent noise-generating facilities should be contingent upon a noise analysis to ensure noise does not encroach upon a 0.5-mile buffer for suitable habitat, including canyon rims.
5. Limit disturbances to and within suitable habitat by staying on designated and/or approved routes.
6. Limit new access routes created by the project.

Modifications to the Surface Use Plan of Operations may be required in order to protect the MSO and/or habitat in accordance with Section 6 of the lease terms, the ESA, and the regulations at 43 Code of Federal Regulations (CFR) 3101.1-2.

T&E 26

SOUTHWESTERN WILLOW FLYCATCHER HABITAT (Riparian Areas)

The lessee/operator is given notice that the lands in this parcel contains riparian habitat within the range for southwestern willow flycatcher. In order to protect southwestern willow flycatcher habitat and avoid negative impacts to the species, actions would be avoided or restricted that may cause stress and disturbance during nesting and rearing of their young. Appropriate measures would depend on whether the action is temporary or permanent, and whether it occurs within or outside the nesting season. A temporary action is completed prior to the following breeding season leaving no permanent structures and resulting in no permanent habitat loss. A permanent action continues for more than one breeding season and/or causes a loss of habitat or displaces flycatchers through disturbances, i.e., creation of a permanent structure. Current avoidance and minimization measures include the following:

1. Surveys would be required prior to operations unless species occupancy and distribution information is complete and available. All surveys must be conducted by qualified individual(s) and be conducted according to protocol.
2. Activities would require monitoring throughout the duration of the project. To ensure desired results are being achieved, minimization measures would be evaluated and, if necessary, Section 7 consultation reinitiated.
3. Water production would be managed to ensure maintenance or enhancement of riparian habitat.
4. Where technically and economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and eliminate drilling in suitable riparian

habitat. Ensure that such directional drilling does not intercept or degrade alluvial aquifers.

5. Activities would maintain a 330 feet buffer from suitable riparian habitat year long.
6. Activities within 0.25-mile of occupied breeding habitat would not occur during the breeding season of April 15 to August 15.
7. Noise emissions within 0.25-miles of suitable habitat for the southwestern willow flycatcher will not exceed baseline conditions during the breeding season of April 15 to August 15.
8. Ensure that water extraction or disposal practices do not result in change of hydrologic regime that would result in loss or degradation of riparian habitat.
9. Re-vegetate with native species all areas of surface disturbance within riparian areas and/or adjacent land.
10. Avoid loss or disturbance of riparian habitats.

Additional measures to avoid or minimize effects to the species may be developed and implemented in consultation with the USFWS between the lease sale stage and lease development stage to ensure continued compliance with the ESA.

T&E 27

YELLOW-BILLED CUCKOO

The lessee/operator is given notice that the lands in or adjacent to this parcel contain potentially suitable habitat that falls within the range for western yellow-billed cuckoo, a Federally listed species. Avoidance or use restrictions may be placed on portions of the lease. Application of appropriate measures will depend whether the action is temporary or permanent, and whether it occurs within or outside the breeding and nesting season. A temporary action is completed prior to the following breeding season, leaving no permanent structures and resulting in no permanent habitat loss. A permanent action could continue for more than one breeding season and/or cause a loss of habitat or displace western yellow-billed cuckoos through disturbances. The following avoidance and minimization measures have been designed to ensure activities carried out on the lease are in compliance with the Endangered Species Act (ESA). Integration of and adherence to these measures will facilitate review and analysis of any submitted permits under the authority of this lease. Following these measures could reduce the scope of ESA, Section 7 consultation at the permit stage. Avoidance and minimization measures include the following:

1. Habitat suitability within the parcel and/or within a 0.5-mile buffer of the parcel will be identified prior to lease development to identify potential survey needs. Habitat suitability should be determined in accordance with *Guidelines for the identification of suitable habitat for WYBCU in Utah*.
2. Protocol Breeding Season Surveys will be required in suitable habitats prior to operations unless species occupancy and distribution information is complete and available. All Surveys must be conducted by permitted individual(s), and be conducted according to protocol.
3. For all temporary actions that may impact cuckoo or suitable habitat:
 - a. If action occurs entirely outside of the cuckoo breeding season (June 1 to August 31), and leaves no structure or habitat disturbance, action can proceed without a presence/absence survey.

- b. If action is proposed between June 1 to August 31, presence/absence surveys for cuckoo will be conducted prior to commencing activity. If cuckoo are detected, activity should be delayed until September 1.
- c. Eliminate access roads created by the project through such means as raking out scars, revegetation, gating access points, etc.
- 4. For all permanent actions that may impact cuckoo or suitable habitat:
 - a. Protocol level surveys by permitted individuals will be conducted prior to commencing activities.
 - b. If cuckoos are detected, no activity will occur within 0.25-mile of occupied habitat.
 - c. Avoid drilling and permanent structures within 0.25-mile of suitable habitat unless absence is determined according to protocol level survey conducted by permitted individual(s).
 - d. Ensure noise levels at 0.25-mile from suitable habitat do not exceed baseline conditions. Placement of permanent noise-generating facilities should be determined by a noise analysis to ensure noise does not encroach upon the 0.25-mile buffer for suitable habitat.
- 5. Temporary or permanent actions will require monitoring throughout the duration of the project to ensure that western yellow-billed cuckoo or its habitat is not affected in a manner or to an extent not previously considered. Avoidance and minimization measures will be evaluated throughout the duration of the project.
- 6. Water produced as by-product of drilling or pumping will be managed to ensure maintenance or enhancement of riparian habitat.
- 7. Where technically or economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and eliminate drilling in suitable habitat. Ensure that such directional drilling does not intercept or degrade alluvial aquifers.
- 8. Ensure that water extraction or disposal practices do not result in a change of hydrologic regime that would result in loss or degradation of riparian habitat
- 9. Re-vegetate with native species all areas of surface disturbance within riparian areas and/or adjacent uplands.

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

T&E 28

CALIFORNIA CONDOR (Potential Habitat)

The lessee/operator is given notice that the lands located in this parcel contain potential habitat for the California condor. Avoidance or use restrictions may be placed on portions on areas known or suspected to be used by condors. Application of appropriate measures would depend on whether the action is temporary or permanent, and whether it occurs within or outside potential habitat. A temporary action is completed prior to the following important season of use, leaving for habitat functionality. A permanent action continues for more than one season of habitat use, and/or causes a loss of condor habitat function or displaces condors through continued disturbance (i.e., creation of a permanent structure requiring repetitious maintenance or emits disruptive levels of noise).

Current avoidance and minimization measures include the following:

5. 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.
6. 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.
7. All workers will be informed about potential condor presence.
8. 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.
9. 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.
10. 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.
11. 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.
12. Temporary activities within 1.0-mile of nest sites would not occur during the breeding season.
13. 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.
14. No permanent infrastructure would be placed within 1.0-mile of nest sites.
15. No permanent infrastructure would be placed within 0.5-miles of established roosting sites or areas.
16. Remove big game carrion to 100 feet from on lease roadways occurring within foraging range.
17. 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.
18. 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 measures would be developed and implemented in consultation with the USFWS to ensure continued compliance with the ESA.

T&E 29

JONES CYCLADENIA (Potential, Suitable and Occupied Habitat)

The lessee/operator is given notice that the lands located in this parcel contain potential habitat for Jones cycladenia. In order to minimize effects to the Federally threatened Jones cycladenia, the BLM, in coordination with the USFWS has developed the following avoidance and minimization measures. Implementation of these measures will help ensure the activities carried out during oil and gas development (including but not limited to drilling, production, and maintenance operations) are in compliance with the ESA. For the purposes of this document, the following terms are so defined: *potential habitat* is defined as areas that satisfy the broad criteria of the species habitat description, usually determined by preliminary, in-house assessment. *Suitable habitat* is defined as areas that contain or exhibit the specific components or constituents necessary for plant persistence determined by field inspection and/or surveys; it may or may not contain Jones cycladenia; habitat descriptions can be found in Federal Register Notice and species recovery plan links at <<http://www.fws.gov/endangered/species/>>. *Occupied habitat* is defined as areas currently or historically known to support Jones cycladenia, synonymous with “known habitat.” The following avoidance and minimization measures should be included in the Plan of Development:

1. Pre-project habitat assessments will be completed across 100 percent of the project disturbance area within potential habitat¹ prior to any ground disturbing activities to determine if suitable Jones cycladenia habitat is present.
2. Species surveys will be conducted within suitable habitat to determine occupancy. Where standard surveys are technically infeasible and otherwise hazardous, due to topography, slope, etc., suitable habitat will be assessed and mapped for avoidance (hereafter, “avoidance areas”); in such cases, 300 foot buffers will be maintained between surface disturbance and avoidance areas. However, site specific distances will need to be approved by USFWS and BLM when disturbance will occur upslope of habitat. Where conditions allow, surveys:
 - a. Must be conducted by qualified individuals(s) and according to BLM and Service accepted survey protocols.
 - b. Will be conducted in suitable and occupied habitat for all areas proposed for surface disturbance prior to initiation of project activities and within the same growing season at a time when the plant can be detected (usually April 15 to June 5; however, surveyors should verify that the plant is flowering by contacting a BLM or USFWS botanist or demonstrating that the nearest known population is in flower),
 - c. Will occur within 300 feet from the edge of the proposed right-of-way (ROW) and/or project disturbance for surface pipelines, roads, wellpads, and other facilities requiring removal of vegetation,
 - d. Will include, but not be limited to, plant species lists and habitat characteristics.
 - e. Will be valid until April 15 of the following year.
 - f. Clearance surveys in occupied habitat will be combined with historic plant location data for that particular site to delineate the outer boundary of occupied habitat. The 300 foot avoidance buffer will then be applied to the outer boundary of occupied habitat for that site. This evaluation will occur in coordination with the BLM and Service to ensure that the appropriate buffer is applied to protect both active and dormant Jones Cycladenia plants in occupied habitat.

- g. Electronic copies of clearance survey reports (included appendices) and GIS shape files will be sent no later than December 31st to each of the following:
 - Utah Natural Heritage Program (with copies of NHP field survey forms);
 - Applicable/affected land owners and/or management agencies; and
 - U.S. Fish and Wildlife Service Utah Field Office (mailing address: 2369 West Orton Circle, Suite 50, West Valley City, Utah 84119).
- 3. Design project infrastructure to minimize impacts within suitable habitat:
 - a. Where standard surveys are technically infeasible, infrastructure and activities will avoid all suitable habitat (avoidance areas) and incorporate 300 foot buffers, in general; however, site-specific distances will need to be approved by USFWS and BLM when disturbance will occur upslope of habitat.
 - b. Reduce well pad size to the minimum needed without compromising safety.
 - c. Where technically and economically feasible, use directional drilling or multiple wells from the same pad.
 - d. Roads and utilities should share common ROWs where possible.
 - e. Reduce the width of ROWs and minimize the depth of excavation needed for the road bed; where feasible, use the natural ground surface for the road within habitat.
 - f. Place signing to limit off-road travel in sensitive areas.
 - g. Stay on designated routes and other cleared/approved areas.
 - h. All disturbed areas will be re-vegetated with species native to the region, or seed mixtures approved by the action agency and USFWS.
- 4. Where there is occupied habitat, project infrastructure will be designed to avoid direct disturbance and indirect impacts to populations and to individual plants:
 - a. Follow the above recommendations in Section 3 for project design within suitable habitats.
 - b. To avoid water flow and/or sedimentation into occupied habitat and avoidance areas, silt fences, hay bales, and similar structures or practices will be incorporated into the project design; appropriate placement of fill is encouraged.
 - c. Construction of roads will occur such that the edge of the ROW is at least 300 feet from: 1) any plant; 2) the outer boundary of occupied habitat and; 3) avoidance areas.
 - d. Existing roads will be graveled within 300 feet of occupied habitat; the operator is encouraged to apply water for dust abatement to such areas from April 15 to June 5 (flowering period); dust abatement applications will be comprised of water only.
 - e. The edge of the well pad should be located at least 300 feet away from plants and avoidance areas, in general; however, site specific distances will need to be approved by USFWS and BLM when disturbance will occur upslope of habitat.
 - f. Surface pipelines will be laid such that a 300 foot buffer exists between the edge of the ROW and plants and 300 feet between the edge of ROW and avoidance areas; use stabilizing and anchoring techniques when the pipeline crossed suitable habitat to ensure pipelines don't move towards the population; site specific distances will need to be approved by USFWS and BLM when disturbance will occur upslope of habitat.
 - g. Construction activities will not occur within occupied habitat.
 - h. Before and during construction, areas for avoidance should be visually identifiable in the field, e.g., flagging temporary fencing, rebar, etc.

- i. A qualified botanist will be onsite during construction to monitor the surface disturbance activity and assist with implementation of applicable conservation measures.
 - j. Place produced oil, water, or condensate tanks in centralized locations, away from occupied habitat.
 - k. Minimize the disturbed area of producing well locations through interim and final reclamation. Reclaim well pads following drilling to the smallest area possible.
5. Dust abatement and reduced speed limits will be applied during flowering dates (April 15 through June 5) within 300 feet of suitable and occupied habitat, including unoccupied suitable habitat.
 6. For projects that cannot implement the measures or avoidance buffers identified in number 4 above, site specific conservation measures will be developed in coordination with USFWS. Occupied Jones cycladenia habitats within 300 feet of the edge of the surface pipelines' ROWs, 300 feet of the edge of the roads' ROWs, and 300 feet from the edge of the well pad shall be monitored for a period of three years after ground disturbing activities. Monitoring will include annual plant surveys to determine plant and habitat impacts relative to project facilities. Annual reports shall be provided to the BLM and the USFWS. To ensure desired results are being achieved, minimization measures will be evaluated and may be changed after a thorough review of the monitoring results and annual reports during annual meetings between the BLM and the USFWS.
 7. Re-initiation of Section 7 consultation with the USFWS will be sought immediately if any loss of plants or occupied habitat for the Jones cycladenia is anticipated as a result of project activities.

Additional site-specific measures may also be employed to avoid or minimize effects to the species. These additional measures will be developed and implemented in consultation with the USFWS to ensure continued compliance with the ESA.

T&E 30

NAVAJO SEDGE (Potential, Suitable and Occupied Habitat)

The lessee/operator is given notice that the lands located in this parcel contain potential habitat for Navajo sedge (*Carex specuicola*). In order to minimize effects to the Federally threatened Navajo sedge, the BLM, in coordination with the USFWS (Service) has developed the following avoidance and minimization measures. Implementation of these measures will help ensure the activities carried out during mineral leasing and development (including but not limited to drilling, production, and maintenance operations) are in compliance with the Endangered Species Act.

For the purposes of this document, the following terms are so defined: *Potential habitat* is defined as areas which satisfy the broad criteria of the species habitat description, usually determined by preliminary, in-house assessment. *Suitable habitat* is defined as areas which contain or exhibit the specific components or constituents necessary for plant persistence, determined by field inspection and/or surveys. Habitat descriptions can be found in Federal Register Notice and species recovery plan links at: <http://www.fws.gov/endangered/species/>. *Occupied habitat* is defined as areas currently or historically known to support Navajo sedge; synonymous with "known habitat."

The following avoidance and minimization measures should be included in the plan of development:

1. Pre-project habitat assessments will be completed across 100 percent of the project disturbance area within potential habitat prior to any ground disturbing activities to determine if suitable Navajo sedge habitat is present.
2. Species surveys will be conducted within suitable habitat to determine occupancy. Where standard surveys are technically infeasible and otherwise hazardous due to topography, slope, etc., suitable habitat will be assessed and mapped for avoidance (hereafter, "avoidance areas"). In such cases, a) 300 foot buffers will be maintained between surface disturbance and avoidance areas, or b) 1.25-mile buffers will be maintained between avoidance areas and subsurface disturbance activities (including drilling), water depletions, or other actions that may result in changes to the local hydrology and avoidance areas. However, site specific distances will need to be approved by Service and BLM when surface disturbance will occur upslope of habitat. Where conditions allow, surveys:
 - a. Must be conducted by a qualified botanist(s), and according to BLM and USFWS accepted survey protocols (USFWS 2011); outside contractors must be considered a *Carex* spp. expert and approved by BLM and USFWS.
 - b. Will be conducted in suitable habitat for all areas proposed for surface disturbance prior to initiation of project activities and within the same growing season, at a time when the plant can be positively identified (usually June 1st to September 30th, however, surveyors should verify that the plant is flowering by contacting a BLM or USFWS *Carex* spp. expert or demonstrating that the nearest known population is in flower).
 - c. Will occur within 300 feet from the edge of the proposed right-of-way and/or project disturbance for surface pipelines, roads, well pads, and other facilities requiring removal of vegetation.
 - d. Will occur within 1.25-miles of proposed water depletions or other actions that will result in changes to the local hydrology.
 - e. Will include, but not be limited to, plant species lists and habitat characteristics.
 - f. Will be valid until June 1 of the following year.
 - g. Electronic copies of clearance survey reports (included appendices) and GIS shape files will be sent no later than December 31st to each of the following:
 - Utah Natural Heritage Program (with copies of NHP field survey forms);
 - Applicable/affected land owners and/or management agencies; and
 - U.S. Fish and Wildlife Service Utah Field Office (mailing address: 2369 West Orton Circle, Suite 50, West Valley City, Utah 84119).
3. Design project infrastructure to minimize impacts within suitable habitat where surveys are technically infeasible.
 - a. For surface-disturbing activities: Infrastructure and activities will avoid all suitable habitat (avoidance areas) and incorporate 300 foot buffers; however, site specific buffer distances will need to be approved by Service and BLM when disturbance will occur upslope of habitat.
 - b. For subsurface activities (including drilling), water depletions, or hydrologic alteration activities: Infrastructure and activities will avoid all suitable habitat (avoidance areas) and incorporate 1.25-mile surface and subsurface buffers; however, site specific buffer distances will need to be approved by Service and BLM when disturbance will occur upslope of habitat.

- c. No surface (or subsurface) occupancy will be allowed in any down dip(s) of the strata as they could be associated with a Navajo sedge water source. Surface disturbance will not occur within a 300 foot buffer from the outer edge of the down dip(s).
 - d. Ensure that water extraction or disposal practices do not result in change of hydrologic regime.
 - e. Ensure above ground contaminants and byproducts are contained and properly managed.
 - f. Ensure any casings near or in aquifers are properly sealed and managed.
 - g. Fracking will not be allowed within 1.25-miles of the edge of suitable geology, unless hydrological and botanical surveys are completed that positively identify the aquifer as entirely unassociated with any Navajo sedge populations.
 - h. Reduce well pad size and potash mining developments to the minimum needed, without compromising safety.
 - i. Where technically and economically feasible, use directional drilling, horizontal drilling, or multiple wells from the same pad. Ensure that directional drilling does not intercept or degrade alluvial aquifers.
 - j. Limit new access routes created by the project.
 - k. Roads and utilities should share common right-of ways where possible.
 - l. Reduce the width of right-of-ways and minimize the depth of excavation needed for the road bed; where feasible, use the natural ground surface for the road within habitat.
 - m. Place signing to limit off-road travel in sensitive areas.
 - n. Existing roads will be graveled within 300 feet of suitable habitat; the operator is encouraged to apply water for dust abatement to such areas and within 300 feet of suitable habitat from June 1 to September 30 (flowering and fruit set period), dust abatement applications will be comprised of water only.
 - o. Place signing to reduce vehicle speed to 15 mph or lower on dirt or gravel roads within 300 feet of suitable habitat and 25 mph or lower in the project area.
 - p. Stay on designated routes and other cleared/approved areas.
 - q. Minimize the disturbed area of producing well locations through interim and final reclamation. Reclaim disturbed areas following completion of activities (drilling or mining) to the smallest area possible. All disturbed areas will be re-vegetated with native species comprised of species indigenous to the area.
 - r. Post construction monitoring for invasive species will be required.
4. Where there is occupied habitat, project infrastructure will be designed to avoid direct disturbance and indirect impacts to populations and to individual plants:
- a. For surface-disturbing activities: Infrastructure and activities will avoid all occupied habitat and incorporate 300 foot buffers; however, site specific buffer distances will need to be approved by Service and BLM when disturbance will occur upslope of habitat.
 - b. For subsurface activities (including drilling), water depletions, or hydrologic alteration activities: Infrastructure and activities will avoid all suitable habitat (avoidance areas) and incorporate 1.25-mile buffers; however, site specific buffer distances will need to be approved by Service and BLM when disturbance will occur upslope of habitat.

- c. To avoid water flow and/or sedimentation into occupied habitat and avoidance areas, silt fences, hay bales, and similar structures or practices will be incorporated into the project design; appropriate placement of fill is encouraged.
- d. No surface (or subsurface) occupancy will be allowed in the down dip(s) of the strata associated with the Navajo sedge water source. Surface disturbance will not occur within a 300 foot buffer from the outer edge of the down dip(s).
- e. Ensure that water extraction or disposal practices do not result in change of hydrologic regime.
- f. Ensure above ground contaminants and byproducts are contained and properly managed.
- g. Ensure any casings near or in aquifers are properly sealed and managed.
- h. Fracking will not be allowed within 1.25-miles from the edge of occupied habitat and associated water sources, unless studies are completed that positively identify the aquifer as entirely unassociated with the Navajo sedge population.
- i. Reduce well pad size and potash mining developments to the minimum needed, without compromising safety.
- j. Where technically and economically feasible, use directional drilling, horizontal drilling, or multiple wells from the same pad. Ensure that directional drilling does not intercept or degrade alluvial aquifers.
- k. Limit new access routes created by the project.
- l. Roads and utilities should share common right-of ways where possible.
- m. Reduce the width of right-of-ways and minimize the depth of excavation needed for the road bed, where feasible, use the natural ground surface for the road within habitat.
- n. Place signing to limit off-road travel in sensitive areas.
- o. Construction of roads will occur such that the edge of the right of way is at least 300 feet from: 1) any plant; 2) the outer boundary of occupied habitat; and 3) avoidance areas.
- p. Existing roads will be graveled within 300 feet of occupied habitat; the operator is encouraged to apply water for dust abatement to such areas and within 300 feet of occupied habitat from June 1 to September 30 (flowering and fruit set period); dust abatement applications will be comprised of water only.
- q. Place signing to reduce vehicle speed to 15 mph or lower on dirt or gravel roads within 300 feet of occupied habitat and 25 mph or lower in the project area.
- r. Stay on designated routes and other cleared/approved areas.
- s. The edge of the disturbance should be located at least 300 feet away from plants and avoidance areas, in general; however, site specific distances will need to be approved by Service and BLM when disturbance will occur upslope of habitat.
- t. Surface pipelines will be laid such that a 300 foot buffer exists between the edge of the right of way and plants and 300 feet between the edge of right of way and avoidance areas; use stabilizing and anchoring techniques when the pipeline crosses suitable habitat to ensure pipelines don't move towards the population; site specific distances will need to be approved by Service and BLM when disturbance will occur upslope of habitat.
- u. Construction activities will not occur within occupied habitat.

- v. Before and during construction, areas for avoidance should be visually identifiable in the field, e.g., flagging, temporary fencing, rebar, etc.
 - w. A qualified botanist will be onsite during construction to monitor the surface disturbance activity and assist with implementation of applicable conservation measures (USFWS 2011).
 - x. Place produced oil, water, condensate tanks, or any other by-products in centralized locations, away from occupied habitat.
 - y. Minimize the disturbed area of producing well locations through interim and final reclamation. Reclaim disturbed areas following completion of activities (drilling or mining) to the smallest area possible. All disturbed areas will be re-vegetated with native species comprised of species indigenous to the area.
 - z. Post construction monitoring for invasive species will be required.
5. For projects that cannot implement the measures or avoidance buffers identified above, site specific conservation measures will be developed in coordination with the Service. Occupied Navajo sedge habitats within: 1) 300 feet of the edge of the surface pipeline right of ways; 2) 300 feet of the edge of the road right of ways; 3) 300 feet from the edge of the development areas; and 4) 1.25-miles of subsurface activities (including drilling), water depletions or other hydrologic alteration activities shall be monitored for a period of three years after ground disturbing activities. Monitoring will include annual plant surveys to determine plant and habitat impacts relative to project facilities. Annual reports shall be provided to the BLM and the Service. To ensure desired results are being achieved, minimization measures will be evaluated and may be changed after a thorough review of the monitoring results and annual reports during annual meetings between the BLM and the Service.
6. Re-initiation of Section 7 consultation with the Service will be sought immediately if any loss of plants or occupied habitat for the Navajo sedge is anticipated as a result of project activities. Additional site-specific measures may also be employed to avoid or minimize effects to the species. These additional measures will be developed and implemented in consultation with the Service to ensure continued compliance with the ESA.

T&E 32

CISCO MILKVETCH (Potential, Suitable and Occupied Habitat)

The lessee/operator is given notice that the lands located in this parcel contain potential habitat for Cisco milkvetch (*Astragalus sabulosus*). The U.S. Fish and Wildlife Service (Service) was petitioned to list Cisco milkvetch under the Endangered Species Act (ESA) and the species' status is currently under review. Cisco milkvetch is currently a Bureau of Land Management (BLM) sensitive plant species.

In order to minimize effects to the Cisco milkvetch, the BLM, in coordination with the Service has developed the following avoidance and minimization measures. Implementation of these measures will help ensure the activities carried out during oil and gas development (including but not limited to drilling, production, and maintenance operations) avoids or minimizes impacts to the species.

For the purposes of this document, the following terms are so defined: *Potential habitat* is defined as areas which satisfy the broad criteria of the species habitat description; usually determined by preliminary, in-house assessment. *Suitable habitat* is defined as areas which contain or exhibit the specific components or constituents necessary for plant persistence;

determined by field inspection and/or surveys; may or may not contain Cisco milkvetch; habitat descriptions can be found in NatureServe links at <http://explorer.natureserve.org/>. *Occupied habitat* is defined as areas currently or historically known to support Cisco milkvetch; synonymous with “known habitat.”

The following avoidance and minimization measures should be included in the plan of development:

1. Pre-project habitat assessments will be completed across 100% of the project disturbance area within potential habitat prior to any ground disturbing activities to determine if suitable Cisco milkvetch habitat is present.
2. Species surveys will be conducted within suitable habitat to determine occupancy. Where standard surveys are technically infeasible and otherwise hazardous due to topography, slope, etc., suitable habitat will be assessed and mapped for avoidance (hereafter, “avoidance areas”); in such cases, 300 foot buffers will be maintained between surface disturbance and avoidance areas. Where conditions allow, surveys:
 - a) Will be conducted by qualified individual(s) and according to BLM and Service accepted survey protocols (USFWS 2011);
 - b) Will be conducted in suitable and occupied habitat for all areas proposed for surface disturbance prior to initiation of project activities and within the same growing season, at a time when the plant can be detected (usually April 15th to May 31st; however, surveyors should verify that the plant is flowering by contacting a BLM or Service botanist or demonstrating that the nearest known population is in flower);
 - c) Will occur within 300 feet from the edge of the proposed right-of-way and/or project disturbance for surface pipelines, roads, well pads, and other facilities requiring removal of vegetation;
 - d) Will include, but not be limited to, plant species lists and habitat characteristics, and;
 - e) Will be valid until April 15th of the following year.
 - f) Clearance surveys in occupied habitat will be combined with historic plant location data for that particular site to delineate the outer boundary of occupied habitat. The 300 foot avoidance buffer will then be applied to the outer boundary of occupied habitat for that site. This evaluation will occur in coordination with the BLM and Service to ensure that the appropriate buffer is applied to protect both active and dormant Cisco milkvetch plants in occupied habitat.
 - g) Electronic copies of clearance survey reports (included appendices) and GIS shape files will be sent no later than December 31st to each of the following:
 - Utah Natural Heritage Program (with copies of NHP field survey forms),;
 - Applicable/affected land owners and/or management agencies; and
 - U.S. Fish and Wildlife Service Utah Field Office (mailing address: 2369 West Orton Circle, Suite 50, West Valley City, Utah 84119).
3. Design project infrastructure to minimize impacts within suitable habitat:
 - a) Where standard surveys are technically infeasible, infrastructure and activities will avoid all suitable habitat (avoidance areas) and incorporate 300 foot buffers;
 - b) Reduce well pad size to the minimum needed, without compromising safety;

- c) Where technically and economically feasible, use directional drilling or multiple wells from the same pad;
 - d) Limit new access routes created by the project;
 - e) Roads and utilities should share common right-of ways where possible;
 - f) Reduce the width of right-of-ways and minimize the depth of excavation needed for the road bed; where feasible, use the natural ground surface for the road within habitat;
 - g) Place signing to limit off-road travel in sensitive areas;
 - h) Stay on designated routes and other cleared/approved areas;
 - i) All disturbed areas will be revegetated with species native to the region, or seed mixtures approved by the action agency.
4. Where there is occupied habitat, project infrastructure will be designed to avoid direct disturbance and indirect impacts to populations and to individual plants:
- a) Follow the above recommendations (#3, above) for project design within suitable habitats;
 - b) To avoid water flow and/or sedimentation into occupied habitat and avoidance areas, silt fences, hay bales, and similar structures or practices will be incorporated into the project design; appropriate placement of fill is encouraged;
 - c) Construction of roads will occur such that the edge of the right of way is at least 300 feet from: (1) any plant; (2) the outer boundary of occupied habitat; and (3) avoidance areas;
 - d) Existing roads will be graveled within 300 feet of occupied habitat; the operator is encouraged to apply water for dust abatement to such areas from April 15th to May 31st (flowering period); dust abatement applications will be comprised of water only;
 - e) The edge of the well pad should be located at least 300 feet away from plants and avoidance areas, in general;
 - f) Surface pipelines will be laid such that a 300 foot buffer exists between the edge of the right of way and plants and 300 feet between the edge of right of way and avoidance areas; use stabilizing and anchoring techniques when the pipeline crosses suitable habitat to ensure pipelines don't move towards the population;
 - g) Construction activities will not occur within occupied habitat;
 - h) Before and during construction, areas for avoidance should be visually identifiable in the field, e.g., flagging, temporary fencing, rebar, etc.;
 - i) A qualified botanist will be on site during construction to monitor the surface disturbance activity and assist with implementation of applicable conservation measures (USFWS 2011);
 - j) Place produced oil, water, or condensate tanks in centralized locations, away from occupied habitat; and
 - k) Minimize the disturbed area of producing well locations through interim and final reclamation. Reclaim well pads following drilling to the smallest area possible.
5. For projects that cannot implement the measures or avoidance buffers identified in #4, above, site specific conservation measures will be developed in coordination with the Service. Occupied Cisco milkvetch habitats within: (1) 300 ft of the edge of the surface pipeline right of

ways; (2) 300 ft of the edge of the road right of ways; and (3) 300 ft from the edge of the well pads shall be monitored for a period of three years after ground disturbing activities. 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>