

# **APPENDIX A**

## **MITIGATION**

### **INTRODUCTION**

Federal agencies are required to include and discuss appropriate measures to mitigate adverse environmental impacts (40 CFR Parts 1502.14 (f), 1502.16 (h), 1508.20). Mitigation includes the following possibilities for dealing with adverse environmental impacts:

- \* Avoiding the impact altogether by not taking a certain action or parts of an action.
- \* Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
- \* Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
- \* Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- \* Compensating for the impact by replacing resources or providing substitute resources or environments.

Mitigation, in the federal oil and gas leasing program, is provided in various intensities at different levels of planning. Mitigation, at the level of the leasing analysis, must be relatively general to encompass all of the possible conditions that may exist at the time of ground disturbance. The opportunities to provide adequate protection at the time of disturbance must be identified and generated at this level of planning. Mitigation that exceeds what is available through the Standard Lease Terms and which is identified now becomes a condition of the lease and restricts the rights that are granted to the purchaser of a lease. These restrictions may affect the lease purchase price as well as the lessees future ability to develop facilities on various, or all, segments of the lease. The restrictions, however, are a known condition at the time of advertisement and purchase.

Mitigation can be refined at two later stages of planning, after the Forest Supervisor makes a decision relating to this analysis. The first of those opportunities is when an actual lease parcel is identified. At that time any knowledge about the parcel, or resources it affects, that is not now available can be used to refine or change the lease restrictions. Those changes will have to be disclosed through an environmental analysis and decision document. The changes recognized at this stage will be identified prior to lease advertisement so they, too, will become known conditions of the lease purchase.

The last formal opportunity where refinement can, and will, occur is at the time that an Application for Permit to Drill (APD) and Surface Use Plan of Operations is provided to the government by the lessee or their representative. At that time a specific plan is provided that displays proposed road and drill locations, and all of the desired facilities. This information allows the Forest Service to

analyze and document site specific effects of the proposed development prior to making a decision.

Many types of mitigation can be identified and required at the time of APD. The only restriction is that the mitigation cannot "unduly hinder or preclude the lessees opportunity to exercise valid existing rights". This makes it important that the government correctly identify the rights that it wishes to confer prior to sale of a lease. Those rights, and mitigation that may limit them, are identified through the application of Standard Lease Terms and necessary additional stipulations prior to advertisement. Once a lease has been sold the government can apply any mitigation requirements that still allow the lessee to exercise the rights they were granted in the lease.

Mitigation measures may be waived or modified by the authorized officer if they are proven unnecessary at the time a site specific analysis is completed for the APD. This could occur because the resource to be protected is absent or more effective mitigation has been identified and will be used. All substantial modifications or waivers will be displayed in a decision document at the time the Surface Use Plan analysis is completed.

In this appendix we will discuss the mitigation provided by both the Standard Lease Terms and supplemental stipulations. We will also briefly discuss some of the standard types of mitigation, termed conditions of approval, that are used at the time of APD. It is important to remember that the lease terms and stipulations build the framework for the application of conditions at the time of APD.

Standard Lease Terms, stipulations, and conditions of approval will be applied to all ground disturbing activities occurring within a lease parcel. These activities include, but are not limited to, prospecting, exploration drilling, and production.

## **STANDARD LEASE TERMS**

Standard Lease Terms apply to all leases and all management alternatives in this EIS. They are attached as Exhibit A-1. They require that the "Lessee shall conduct operations in a manner that minimizes adverse impacts to the land, air, and water, to cultural, biological, visual, and other resources, and to other land uses or users. Standard Lease Terms are commonly considered to be adequate to mitigate most adverse environmental impacts (40 CFR Part 1505.2 (c) and Part 1508.20).

The standard terms also apply all non-discretionary statutes, and reasonable measures required by the Authorizing Officer to minimize adverse impacts to other resources and users. The Conditions of Approval (COA's) shown later in this Appendix apply to all four management alternatives.

Under Standard Lease Terms mitigation may include moving the site of developments up to 200 meters, timing restrictions of up to 60 days, facility design changes, and interim and final reclamation efforts. Many other protection measures can be applied and negotiated under standard terms. It must be demonstrated that Standard Lease Terms are insufficient in order to apply supplemental stipulations.

## **SUPPLEMENTAL STIPULATIONS**

When there are resource values, uses, or user conflicts identified that cannot be managed or accommodated by the Standard Lease Terms or on other lands, a lease stipulation may be necessary. The leasing analysis must show that less restrictive stipulations were considered and determined to be insufficient. Once this determination has been made, the appropriate stipulations will be attached to all leases on available lands with resource values, uses, or user conflicts that cannot be accommodated by less restrictive mitigation. Stipulations may be applied to all, or part, of a lease parcel as required for resource protection. Standard Lease Terms and conditions of approval will apply to all lease parcels, or all parts of lease parcels which do not require resource protection by stipulation. Stipulations will display the need for lease stipulations and establish guidelines for granting waivers, exceptions, or modifications. Substantial modification or waiver after lease issuance is subject to public review for at least a 30-day period in accordance with Section 5120.f of the Federal Onshore Oil and Gas Leasing Reform Act of 1987.

Stipulations may be necessary if the authority to control the activity on the lease does not already exist under laws, regulations, or orders. It is important to recognize that the Authorized Forest Officer has the authority to modify the siting and design of facilities, control the rate of development and timing of activities, as well as require other mitigation under Sections 2 and 6 of the Standard Lease Terms (BLM Form 3100-11) and 43 CFR 3101.1-2.

The following guidance is provided in order to assist in the determination of needed stipulations. They are displayed from the most to the least restrictive.

### **No Surface Occupancy Stipulation Guidance**

No Surface Occupancy (NSO) is the most restrictive stipulation available and is intended for use only when Standard Lease Terms and other, less restrictive, stipulations are determined insufficient to adequately protect the public interest. The analysis record must show that a no-lease alternative was considered when applying the NSO stipulation.

### **Timing Limitation Stipulation Guidance**

The Timing Limitation (often called seasonal) Stipulation prohibits fluid mineral exploration and development activities for time periods less than yearlong. When using this stipulation, assure that date(s) and location(s) are as specific as possible. A timing stipulation is not necessary if the time limitation involves the prohibition of new surface disturbing operations for periods of less than 60 days (43 CFR 3101.1-2).

### **Controlled Surface Use Stipulation Guidance**

The Controlled Surface Use (CSU) Stipulation is intended to be used when oil and gas activities are allowed on all, or portions, of the lease area year-round but, because of special values or resource concerns, lease activities must be strictly controlled. The CSU Stipulation is used to identify constraints on surface use or operations which may otherwise exceed the mitigation provided by Section 6 of the Standard Lease Terms and the regulations and operating orders. The CSU Stipulation is less restrictive than the NSO or Timing Limitation stipulations, which prohibit all

activity on all, or portions, of a lease for all, or portions, of a year. The CSU Stipulation should not be used in lieu of an NSO or Timing Limitation stipulation but should be limited to areas where restrictions or controls are necessary for specific, rather than all, activity.

The stipulation should explicitly describe what activity is to be restricted or controlled, or what operation constraints are required, and must identify the applicable area and the reason for the requirement. The legal subdivision, distance, location, or geographic feature, and resource value of concern must be identified in the stipulation and be tied to a land use plan and/or NEPA document.

## **Stipulations for Use on the Unit**

Table A-1 displays the stipulations that follow it which are described in detail. These stipulations may be applied on both federal surface and split-estate lands where necessary.

## **Supplemental Stipulation Descriptions**

This section describes the stipulations that may be attached to leases based on the Record of Decision.

These stipulations would be placed on available lands with resource values, uses, or user conflicts that, as determined by this Leasing Analysis, cannot be accommodated by less restrictive mitigation.

These stipulations are applicable under Alternative III of this leasing analysis. Several stipulations, or parts of them, also apply under Alternative I, Current Forest Plan Direction. Those that apply under Alternative I include the NSO's for Soils, Municipal Watersheds, and Ski Areas; CSU for National Natural Landmark, watersheds over sediment thresholds, and RNA's and Special Areas with management plans.

The Stipulation Base Map in Appendix D depicts general areas on the Unit where these stipulations may be necessary. The Resource Base Quad Maps and their overlays, represented in Appendix E, identify the resource values being protected by the stipulations.

**Table A-1  
 Limitations or Prohibition of Surface Activity  
 In Areas with Resource Sensitivity**

Limitation/Prohibition	Use/Resource to be Protected
NSO Stipulation	Cultural Resources Municipal Watersheds Recreation Riparian, Wetlands, Floodplains Soils
Timing Stipulation	Wildlife (Critical Winter Range) Wildlife (Management Indicator Species)
CSU Stipulation	Alpine Soils Special Interest Areas (National Natural Landmarks) Visual Resources Water
Lease Notices	Research Natural Areas and Special Interest Areas Special Uses Special Use - Ski Areas Threatened and Endangered Species Vegetation (Timber Sales)
Standard Lease Terms	Air Cultural Resources Range Recreation Soils Special Uses Vegetation Visual Resources Water Wildlife

Serial No. \_\_\_\_\_

**NO SURFACE OCCUPANCY STIPULATION**

**No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).**

The Santa Fe National Historic Trail, to include ruts or rut zones or swales or vegetation changes designated as the major routes of the Trail and a 300 foot buffer area on each side of the Trail. The Trail (single or multiple ruts or swales) varies in width from approximately 50 feet to over 300 feet. Thus the total NSO zone may be 450 feet or more in width for some portions of the Trail.

**On the lands described below:**

The locations of the major routes of the Santa Fe National Historic Trail are available through the Cultural Resources Management records section maintained at the Forest Supervisor's Office in Pueblo. They include the major routes and branches of the Cimarron Cutoff on the Cimarron National Grassland, the major routes and branch of the Mountain Branch, and the Aubrey Cutoff, the Granada-Ft. Union Military Road, and the Las Animas-Trinidad New State Road, all on the Comanche National Grassland.

**For the purpose of:**

Protecting the physical manifestations and immediate environment of the Trail, including inherent interpretive, educational, and recreational values for the segment potentially impacted.

**The following exceptions are noted:**

1. Temporary ground disturbances (less than six weeks duration) for the purpose of constructing underground utility lines, collection systems, underground salt water pipelines, and other underground support facilities are permissible. Upon completion of installation, the ground and vegetation should be restored to its previous condition.
2. Locate roads outside the designated trail routes and buffer unless: (a) The trail has been destroyed by post-trail era use or erosion and is not visible as ruts, rut zones, or swales; and (b) alternative routes have been reviewed and rejected as being more environmentally damaging.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2920, FS Oil & Gas Regulations, 36 CFR, Sec. 228.104.)

Form #/Date

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## Cultural

No Surface Occupancy is being used to protect the Santa Fe National Historic Trail and its features. The Trail consists of 1200 miles of ruts and other remnants of the original 1821-1880 route from Old Franklin, Missouri, to Santa Fe, New Mexico. The Trail was added to the National Trails System in 1987 through amendment to the National Trails System Act (P.L. 100-35). National Historic Trails are managed by the USDI Park Service for identification and protection of historic routes and remnants for public use and enjoyment. The Park Service has prepared a Management and Use Plan for the Santa Fe Trail which includes identification of major routes, side branches, and sites. Those specific areas on the Cimarron and Comanche National Grasslands are the Cimarron Cutoff, the Mountain Branch, the Aubrey Cutoff, and the Granada-Ft. Union Wagon Road. The Forest Service, in cooperation with the National Park Service, is developing the Trail for public recreation use within the guidelines provided in the Management and Use Plan.

The following guidelines would be implemented:

For ruts or rut zones, or vegetation changes, or shallow swales designated as the main route of the Trail, a No Surface Occupancy Zone has been established for the Trail and a 300 foot buffer areas on either side. Oil and gas wells, roads, collection points or other surface disturbances will not be permitted within the Zone. It may be feasible to tunnel under visible remnants of the Trail to construct pipelines, utility lines etc.

NSO - Municipal Watersheds

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Serial No. \_\_\_\_\_

**NO SURFACE OCCUPANCY STIPULATION**

**No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).**

All lands identified to be managed for the purpose of conserving and protecting the water supply of the following communities:

Town of Cascade	Cooperative Agreement, 4/28/1923
Cities of Colorado Springs & Manitou Springs	Act 2/27/1913
	Cooperative Agreement, 10/9/1914
	Special Regulations, 10/9/1914
City of Colorado Springs	Cooperative Agreement, 1/9/1924
	Act 4/10/1890
	Act 4/24/1896
	Act 5/01/1902
City of Manitou Springs	Cooperative Agreement, 5/1/1923
City of Trinidad	Cooperative Agreement, 1/16/1914
Town of Palmer Lake	Cooperative Agreement, 2/06/1917
City of Florence	Cooperative Agreement, 6/05/1939

**For the purpose of:**

Conserving and protecting the water supply of said community.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2920, FS Oil & Gas Regulations, 36 CFR, Sec. 228.104.)

Conditions under which stipulation would be waived.

Use of said lands will only be permitted with the approval of proper community authorities, except for the purpose specifically allowed in the specific act and/or cooperative agreement which established the municipal watershed.

Form #/Date

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## Municipal Watersheds

Municipal watersheds are managed to maintain water production and quality in order to provide potable water for use in population centers. Special management requirements are identified for all watersheds based on the enabling articles. Some watersheds on the Unit were legislatively designated, others established through cooperative agreements or other administrative tool.

All development in the watersheds is based on the existing agreements and negotiations with the communities served.

NSO - Recreation

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Serial No. \_\_\_\_\_

**NO SURFACE OCCUPANCY STIPULATION**

**No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).**

All developed recreation sites as identified in RIM including a 1/4 mile buffer around each site. Locate roads and drill sites outside developed recreation site buffer zones unless alternative routes have been reviewed and rejected as being more environmentally damaging.

**For the purpose of:**

To protect the investment of facilities within the site, to protect the recreation experience and safety of the visitors, and to protect the natural environment that initially made the site desirable for development.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2920, FS Oil & Gas Regulations, 36 CFR, Sec. 228.104.)

Form #/Date

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### **Recreation**

The NSO stipulation will be applied to leases for tracts in and around identified developed recreation sites. [See Exhibit A-2 for a listing of these sites.] NSO will be used to meet the goals of the Forest Plan for developed recreation opportunities and experiences.

The developed recreation sites are facilities constructed for public enjoyment that and include, but are not limited to, campgrounds, picnic areas, trailheads, designated play and sport areas, boat ramps, interpretive sites, fishing docks, and complexes formed by combinations of the above.

Serial No. \_\_\_\_\_

**NO SURFACE OCCUPANCY STIPULATION**

**No surface occupancy or use is allowed on the lands described below (legal subdivision or other description).**

Wetlands, Riparian Areas and Floodplains of any defined drainage or location containing these specific ecosystem types. Access roads may be allowed in these areas only if alternative roads have been reviewed by the appropriate personnel, and have been rejected as being more environmentally damaging. When road locations must occur in these areas, streams will be crossed at right angles and access across other areas will be held to a minimum. Streams will not be paralleled by roads through these areas.

**On the lands described below:**

Information on the location of these areas can be found on 1:24,000 scale maps located at the Forest Supervisors Office. Additional site specific information may be required at the APD stage.

**For the purpose of:**

The management of wetlands and floodplains are subject to Executive Orders 11990 and 11988, respectively. The purpose of the EO's are to avoid to the extent possible the long and short term adverse impacts associated with the destruction or modification of wetlands and floodplains and to avoid direct or indirect support of new construction in wetlands wherever there is a practical alternative.

Also, it is recognized that there is a direct relationship between impacts on such areas and effects on water quality and aquatic ecosystems. There is a high risk of irreversible and irretrievable impacts on the latter with operation and developments in wetlands, riparian areas and floodplains.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950, 2820 and 2526.

Form #/Date

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## **Riparian, Water, Fisheries**

Where Standard Lease Terms are not adequate to relocate oil and gas activity outside of riparian areas, floodplains areas and wetlands, the NSO (riparian) stipulation will be applied.

Riparian areas, floodplain areas and wetlands are not mapped at the planning scale, but must be considered a part of all lease units. When specific APD's are being evaluated, wetlands and floodplains must be covered by the requisite stipulation. No Surface Occupancy must correspond to an area along the edges of all streams, lakes and other bodies of water. The actual distance for riparian areas shall correspond to at least the recognizable area dominated by riparian vegetation and soil conditions. The area of the floodplain is the 100-year floodplain. The stipulation will ensure that new development is not permitted without a detailed analysis of the activities to be exempted from executive order requirements.

Ephemeral streams on the Grasslands meet the executive order criteria for defining wetlands and floodplains and are subject to the mitigation measures described herein.

All waterfowl and fisheries resources will be evaluated to determine the need for permanent or temporary fencing to promote riparian vegetation establishment. Other areas may need fencing to restore the riparian community. Protection of riparian areas is required due to the high risk of irreversible and irretrievable impacts to the water quality and associated ecosystems from oil and gas operations and developments in wetlands, riparian areas and floodplains.

Wetlands and floodplains must be mapped for a lease report in accordance with FSM 2526 and 2527 direction. The areas subject to an NSO stipulation include the width of a riparian area and include the area calculated for conveyance of a 100 year recurrence interval flood. The specific description must be reflected or referenced on the face of the stipulation form.

Serial No. \_\_\_\_\_

**NO SURFACE OCCUPANCY STIPULATION**

**No surface occupancy or use is allowed on the lands described below (legal subdivision or other description)**

Areas identified with **both** of the following characteristics:

1. Slopes steeper than 60 percent.
2. High (severe) geologic hazard.

**Exception Criteria:**

This stipulation will not be applied on lands within lease areas where neither of the above limiting characteristics are found to exist. Modification of this stipulation may occur as long as resource values are protected.

**For the purpose of:**

1. Preventing mass movements of earth such as landslides.
2. Maintaining or improving water quality to meet Federal or State standards.
3. Preventing significant or permanent impairment to soil productivity.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820, FS Oil & Gas Regulations, 36 CFR, Sec. 228.104)

Form #/Date

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## Soils

The NSO stipulation is applied to leases in areas of high geologic hazard (mass movement) on slopes steeper than 60 percent for the purpose of:

- (1) Preventing mass movement of earth materials.
- (2) Maintaining or improving water quality to meet federal and state standards.
- (3) Preventing significant or permanent impairment of soil productivity.

Soil criteria used for no surface occupancy include *both* of these characteristics: 1) slopes steeper than 60 percent and, 2) high geologic hazard. Areas inferred to be high geologic hazards include landslides, avalanches, debris flows or slides, rockslides, rockfalling, slumping or talus accumulation. Some till is mapped with landslide deposits, because distinguishing these two deposits from one another is difficult. Areas mapped as susceptible to landslides and related activity will be carefully studied before any development begins.

The map showing suitability for NSO as it relates to soils should be viewed as displaying areas of generality. The delineated areas of NSO means that the vast majority of that area has severe limitations such as slopes steeper than 60 percent, and high geologic hazards. However, there are inclusions small parcels of land which do not have the limitations described above but are surrounded by them. These areas can not be practically separated at the scale of mapping, but they would be open to surface occupancy if industry can demonstrate, to the satisfaction of the Forest Service, that all concerns can be mitigated. Surface occupancy or use may be subject to other special stipulations where such controls are deemed necessary to protect resource values.

TIMING - Wildlife Critical Winter Ranger

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Serial No. \_\_\_\_\_

**TIMING LIMITATION STIPULATION  
(CRITICAL WINTER RANGE)**

No surface use is allowed during the following time period(s); this stipulation does not apply to operation and maintenance of production facilities.

1. Exploration, drilling, and development activity will not be allowed during the period from December 1 to April 15.
2. New oil and gas roads on public lands will be closed to the public from December 1 to April 15.

**On the lands described below:**

Critical Winter Ranges for big game and turkey

**For the purpose of:**

These areas are critical mule deer, pronghorn antelope, big horn sheep, elk, and turkey winter ranges. These key concentration areas support and sustain a large percentage of the total winter populations. They are extremely important for animal survival during winters of harsh weather conditions. Disturbances and habitat losses may place unnecessary stress on the wintering wildlife herds and cause an increase in mortality.

Conditions under which this stipulation would be waived.

1. Winter conditions which would not concentrate wildlife on the critical winter ranges, and
2. The duration of the operation would not exceed two weeks.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

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**Wildlife**  
**Critical Winter Range**

The Forest Plan indicates that habitat will be maintained for viable population levels of all existing wildlife species within the Forest. The emphasis for habitat maintenance and development will be on present and potential habitat for sensitive, threatened and/or endangered species, Management indicator species (MIS), and critical wildlife winter ranges production areas.

Timing stipulations were identified to mitigate potential significant effects which could occur as a result of oil and gas leasing exploration and development activities on the big game critical winter range, habitat for management indicator species. The following table shows when activities will be allowed or prohibited.

**TABLE A-2**  
**SEASONAL OPERATING RESTRICTIONS**  
**TO RESOURCE DEVELOPMENT ACTIVITIES**

SPECIES	Seasonal Restrictions											
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
Deer/Elk					1	←	→	15				
Bighorn Sheep					1	←	→	15				
Mountain Goat					1	←	→	15				
Pronghorn					1	←	→	15				
Turkey					1	←	→	15				

TIMING - Wildlife (MIS)

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Serial No. \_\_\_\_\_

**TIMING STIPULATION**  
(Management Indicator Species)

**No surface use is allowed during the following time period(s):** this stipulation does not apply to operation and maintenance of producing wells:

**Seasonal Wildlife Stipulation for Management Indicator Species**

No surface use is allowed during the periods listed for the purposes below.

Elk calving, Bighorn Sheep lambing, Pronghorn and Deer fawning and Goat kidding areas:

April 15 to July 1

Prairie Chicken Dancing grounds and nesting areas:

March 1 to June 1

Critical Raptor nesting areas:

March 1 to July 31

Bald Eagle and Turkey Winter Habitat:

November 15 to April 15

Curlew, and Mountain Plover Nesting, Resting, Staging areas:

March 1 to July 1

Abert's squirrel winter habitat:

**For the purpose of:**

These areas have been identified by the CDOW and Kansas Department of Wildlife and Parks. Disturbance during the reproductive season may reduce herd productivity. For nesting species, surface disturbance and associated human activity could disrupt breeding and/or cause nest abandonment. Winter habitat for the Bald Eagles and turkey are important for roosting, perching or feeding. Human disturbance would produce increased stress, leading to poor physical condition, winter mortality and/or reduced reproduction.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

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**Wildlife  
Management Indicator Species**

The Forest Plan indicates that habitat will be maintained for viable population levels of all existing wildlife species within the Forest. The emphasis for habitat maintenance and development will be on present and potential habitat for sensitive, threatened and/or endangered species, MIS, and critical big-game winter ranges/big-game production areas.

Timing stipulations were identified to mitigate potential significant effects which could occur as a result of oil and gas leasing exploration and development activities on the big game critical winter range, habitat for management indicator species. The following table shows when activities will be allowed or prohibited.

**TABLE A-3  
SEASONAL OPERATING RESTRICTIONS  
TO RESOURCE DEVELOPMENT ACTIVITIES**

		Seasonal Restrictions											
SPECIES		Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
Prarie Chicken Leks									1	←	→	1	
Bald Eagle/Turkey					15	←	→	15					
Mule Deer/ Elk Migration					1	←	→	1					
<b>BIRTHING AREAS</b>													
Elk										15	←	→	1
Mule Deer										15	←	→	1
Mountain Goat										15	←	→	1
Pronghorn										15	←	→	1
<b>NESTING AREAS</b>													
Prarie Chicken									1	←	→	15	
Raptor									1	←	→	31	
Curlew									1	←	→	1	
Mtn Plover									1	←	→	1	

CSU - Soils

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Serial No. \_\_\_\_\_

**CONTROLLED SURFACE USE STIPULATION**

**Surface occupancy or use is subject to the following special operating constraints.**

Ground disturbing activities will be relocated beyond 200 meters to suitable soil types and/or stable slope conditions where such controls are necessary to protect resource values on the lands described below:

1. Slopes steeper than 60 percent.
2. Fragile soils with High (severe) erosion potential on slopes of 40 percent or greater.
3. Fragile soils with High (severe) erosion potential, soil depth to bedrock is less than 20 inches, and slopes of 35 percent or greater.

**Exception Criteria**

This stipulation will not be applied on lands within lease areas where neither of the above limiting characteristics are found to exist. Modification of this stipulation may occur as long as resource values are protected.

**For the purpose of:**

1. Preventing significant or permanent impairment of soil productivity.
2. Protecting off-site areas by preventing impacts from accelerated soil erosion.
3. Maintaining or improving water quality to meet Federal or State standards.
4. Preventing detrimental impacts such as gully erosion, streambank failure, soil compaction, and severe rutting which could cause long-term damage or permanent impairment to soil productivity.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101, FS Oil & Gas Regulations, 36 CFR, Sec. 228.104.)

Form #/Date

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## Soils

Soil criteria used for justification of the CSU stipulation include any of the following characteristics: 1) slopes steeper than 60 percent; 2) High (severe) erosion potential on slopes of 40 percent or greater; and 3) High (severe) erosion potential on shallow (less than 20 inches) soils and slopes of 35 percent or greater. Associated with these areas are a low reclamation potential and high probability for loss of soil productivity.

Ground disturbing activities will be relocated beyond 200 meters to suitable soil types and/or stable slope conditions, where such controls are necessary, for the purpose of:

- (1) Maintaining or improving water quality to meet federal and state standards.
- (2) Protecting off-site areas by preventing impacts from accelerated soil erosion.
- (3) Preventing significant or permanent impairment of soil productivity.
- (4) Selecting the best site for development in order to minimize impacts to soil and water resources.

Inclusions within the mapped areas cannot be practically separated at the scale of mapping. Slope gradients will be carefully studied and monitored on-the-ground prior to the approval of any ground disturbing activities.

Serial No. \_\_\_\_\_

**CONTROLLED SURFACE USE STIPULATION**  
(for Alpine Ecosystems)

**Surface occupancy or use is subject to the following special operating constraints.**

Access will be limited to existing roads or point access (helispots, etc.) Point access must be on flat, stable landforms, of minimal size, as close to the well pad as safety will allow. **Well configuration** - There will be no reserve pit excavation in alpine areas. Waste materials must be temporarily stored in tanks and disposed of in pre-approved areas outside the alpine zone. There will be no on-site camp facilities for crews. On-site equipment and supply storage will be kept to a minimum. Surface leveling will also be kept to a minimum by storing as much equipment as possible on racks or in sheds with minimal surface contact. Surface disturbance will be limited to 1 acre per lease-hold, or 1 acre per 500 acres, whichever is more restrictive. Site clearing and improvements may require relocation further than 200 meters to find naturally flat (generally less than 5%) microsites with acceptable site conditions for disturbance and subsequent reclamation.

As much as feasible, facilities should be situated so that they do not protrude above ridgelines as viewed from below and do not unduly impact visual quality near the Continental Divide Trail. Topography and subalpine vegetation should be used for screening to the extent possible to meet adopted visual quality objectives.

**On the lands described below:**

Land areas above timberline, mapped as alpine on the Resource Base Quad Maps.

**For the purpose of:**

1. Preventing significant or permanent impairment of soil productivity.
2. Maintaining or improving water quality to meet Federal or State standards.
3. Minimizing the potential for significant or cumulatively significant impacts in alpine ecosystems, per 40 CFR 1508.27(b)(7).
4. Minimizing visual quality impacts.

This stipulation is not subject to exception but may be modified or waived if the qualified botanist or ecologist who performs the lease proposal monitoring and/or the pre-disturbance resource survey at APD determines that the stipulation as stated will not adequately protect surface resources; or specified alternative constraints would adequately protect surface resources. Substantial modification, or waiver, of this stipulation would require additional environmental analysis and another decision. .

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (See BLM Manual 1624 and 3101 or FS Manual 1950 and 2820, FS Oil & Gas Regulations, 36 CFR, Sec. 228.104.)

Form #/Date

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## **Alpine**

**This Controlled Surface Use (CSU) stipulation will be applied to leases within alpine areas not protected by the more restrictive No Surface Occupancy and Timing stipulations, or the Controlled Surface Use Stipulation for the Spanish Peaks National Natural Landmark. This CSU stipulation is specified to minimize disturbance to fragile alpine ecosystems, to prevent accelerated soil erosion by water or wind to maintain soil productivity and facilitate revegetation, and to minimize visual impacts.**

**Surface disturbance will be revegetated to approximate the pre-disturbance condition. Revegetation will be artificially induced as soon as possible after well abandonment or non-use. Revegetation species and specific erosion control measures will be determined during the site specific environmental analysis phase.**

CSU - Special Interest Area (NNL)

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Serial No. \_\_\_\_\_

**CONTROLLED SURFACE USE STIPULATION**  
Spanish Peaks National Natural Landmark

**Surface occupancy or use is subject to the following special operating constraints.**

In all areas of the National Natural Landmark, *except* the alpine areas (above timberline) of the East and West Peaks, and the radiating dikes. Production activity, including surface disturbances, will be limited to the minimum necessary for normal service and maintenance. Companies will be required to submit for approval by the District Ranger, a plan that outlines the minimum activity required for normal operation.

Within the boundaries of the Landmark oil and gas development will *avoid* all geological features that contribute to the landmark designation: these are the alpine (above timberline) portions of the East and West Spanish Peaks *and* the volcanic dikes projecting from the bases of the peaks. The dike formations also are protected by a 200 foot no disturbance buffer zone on both sides to prevent erosion and to protect the physical integrity of the dikes.

**On the lands described below:**

Within the boundaries of the Spanish Peaks National Natural Landmark, including all Forest Service System lands within T30S, R67W; T30S, R68W; T31S, R67W; T31S, R68W; all section T31S, R69W, Sections 1, 2, 11, 12, 13, and 14.

**For the purpose of:**

Protecting the significant and contributing geological features of the Spanish Peaks Natural Landmark and to protect the physical integrity of the landmark as a whole. To implement the National Natural Landmark protection measures as specified in the continuing Memorandum of Agreement between the National Park Service and the Forest Service regarding such areas (FSM 1531.31b. Memorandum of Agreement of Designation of Natural Landmarks in National Forests).

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820, FS Oil & Gas Regulations, 36 CFR, Sec. 228.104.)

Form #/Date

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### **National Natural Landmarks**

The Spanish Peaks area has been nationally recognized for its geological significance and has been identified as a National Natural Landmark. This was implemented through the Memorandum of Agreement between the National Park Service and the Forest Service (FSM 1531.31b. Memorandum of Agreement of Designation of Natural Landmarks in National Forests).

Multiple-use management is allowed in National Natural Landmarks as long as the natural features that drove the recognition are protected. The CSU is needed to protect the physical integrity of the significant and contributing geological features of the Spanish Peaks Natural Landmark.

Serial No. \_\_\_\_\_

**CONTROLLED SURFACE USE STIPULATION**

**Surface occupancy or use is subject to the following special operating constraints.**

When necessary to meet VQO's, site clearings, collection facilities, structures, utilities and pipelines will be relocated more than 200 meters. At the time of APD a visual site analysis will be completed to determine if vegetation, topography, and on-site controls are sufficient to mitigate visual impacts. If so, the site will be excepted, and not require relocation.

**On the lands described below:**

Lands with the following visual resource classification, FG1A, FG1B, and MG1A, that have retention identified as the quality objective. Federal and State Highways, nationally designated trails, major water features, recreation complexes, and high use Forest Service Roads are examples. Visual Quality Maps are on file in the Supervisor's Office, Pueblo, Colorado.

**For the purpose of:**

1. Protecting the natural, cultural and historical scenic values of these areas.
2. Preventing the placement of collection facilities, well sites or exploration activity within these areas that do not meet Visual Resource Management guidelines.
3. Providing Forest and Grassland visitors with quality experiences.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820.)

Form #/Date

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### **Visual Resource**

The CSU stipulation is used to prevent visual disturbances from drilling operations, treatment, storage and collection facilities and exploration on areas of high scenic and recreation value. Use of the CSU stipulation will be limited to foreground and middleground viewing distance zones of primary and secondary viewpoints, in areas with a visual quality objective of retention.

CSU stipulation allows the Forest Service the flexibility to relocate activity farther than the allowable 200 meters, allowable under Standard Lease Terms, if necessary to mitigate visual impacts.

When development is visible from more than one viewpoint, primary consideration will be given to the viewpoint closest to the development.

Serial No. \_\_\_\_\_

**CONTROLLED SURFACE USE STIPULATION**

**Surface use or occupancy is subject to the following special operating constraints. Ground disturbing activities will be allowed in watersheds that have been identified as being over sediment thresholds or within 10 percent of exceeding sediment thresholds, but only after enough disturbed acres in the watershed are rehabilitated so that the new activities will not result in sediment threshold limits being exceeded. At the time of the APD, a site-specific analysis must be done for the streams in these areas to determine the existing biological and physical conditions. If these conditions are found to be impaired, ground-disturbing activities may have to be curtailed until the conditions can be improved.**

**On the lands described below:**

In watersheds that have been identified as being over sediment threshold:

Trail Creek 6-3	Beaver Creek 17-2
Thirtynine Mile Mtn. 8-2	Fourmile Creek 21-1
Twin Creek 8-4	Link Creek 25-1
Jackson Creek 15-3	Kaufman Ridged 98-5
Stark/Gove Creek 15-4	

In watersheds within 10% of exceeding sediment threshold.

Badger Creek	West Creek 6-1
S. Platte R. from Elevenmile to confluence w/ N. Fk. S. Platte R.	Spinney Mtn. 8-1
Bailey 9-2	Elevenmile 8-3
Rampart 17-3	Elk Creek 11-2
Spruce Grove 23-2	East Beaver Creek 21-3
Hackett Gulch 25-3	Pulver Gulch 25-2
No. Fork Purgatoire River 97-1	Newlin Creek 87-2

**For the purpose of:**

Meeting the objectives of the Clean Water Act of 1977 & Federal Water Pollution Control Act of 1972 to restore and maintain the physical, chemical, and biological integrity of the nation's water.

Form #/Date

## Water

At the time of the APD, a site-specific analysis must be done to determine the existing biological and physical conditions of the streams that could be impacted. If these conditions are found to be impaired, ground-disturbing activities cannot occur until the conditions can be improved. Activities may be allowed to proceed if they are mitigated and enough disturbed acres in the watershed are rehabilitated, so new activities will not result in sediment thresholds being exceeded.

This stipulation is applied to watersheds in areas which potentially would produce effects as identified and described in the Affected Environment Chapter of this EIS. Stipulations are applied to meet the objective of the Clean Water and Federal Water Pollution Control Acts to restore and maintain the physical, chemical, and biological integrity of the nation's water. They are also necessary to meet Forest Plan goals for maintaining or improving water quality, to conserve water resources and to protect environmental quality. Less restrictive stipulations could result in impacts that would further exceed threshold sediment yield values. Maintaining or improving the water quality also benefits the aquatic life found in the Forest's streams.

All of these impact areas are made relatively more important by the possible cumulative effects of oil and gas development. In many areas, notably those which have been identified as not meeting water quality standards, surface use must be controlled by application of the CSU stipulation. All areas of concern should be monitored for project-specific impacts on water quality.

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## LEASE NOTICES

Lease Notices are attached to leases to transmit information at the time of lease issuance to assist the lessee in submitting acceptable plans of operation, or to assist in administration of leases. Lease Notices are attached to leases in the same manner as stipulations, however, there is an important distinction between Lease Notices and Stipulations. Lease Notices do not involve new restrictions or requirements. Any requirements contained in a Lease Notice must be fully supported in either a law, regulation, standard lease term, or onshore oil and gas order. A Lease Notice is not signed by the lessee. Guidance in the use of Lease Notices is found in BLM Manual 3101 and 43 CFR 3101.1-3.

A Lease Notice should contain the following elements: (1) the resource/use/value and the lands affected, if applicable; (2) the reason(s); (3) the effect on lease operations or what may be required; and (4) a reference to the lease term, regulation, law or order from which enforcement authority is derived.

If a situation or condition is known to exist that could constrain lease operations, there should be full disclosure at the time of lease issuance via a Lease Notice. If a lessee may be prevented from extracting oil and gas through a prohibition mandated by a specific non-discretionary statute, such as the Endangered Species Act, then a stipulation may be used even though a Lease Notice would be sufficient. It is at the discretion of the Authorized Forest Officer whether a situation is sufficiently sensitive to warrant the use of a lease stipulation.

LEASE NOTICE - Research/Special Interest Areas

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Serial No. \_\_\_\_\_

**LEASE NOTICE**

**Activities on Research and Special Interest Areas**

**Oil and gas operations will be limited based on the goals and management requirements for RNA's. Until the following areas are withdrawn a DNL is applied:**

Hurricane Canyon RNA	Pikes Peak R.D.	520 acres
Saddle Mountain RNA	South Park R.D.	480 acres
Hoosier Ridge RNA	South Park R.D.	695 acres
Campo RNA	Comanche NG	35 acres
Cimarron RNA	Cimarron NG	310 acres
Windy Ridge Bristlecone		
Pine Scenic Area	South Park R.D.	150 acres
Queen's Canyon Geologic Area	Pikes Peak R.D.	1130 acres

Management plans call for a CSU on:

Lesser Prairie Chicken Zoological Area	9212 acres
Southeastern Colorado Branch Experimental Sta.	3920 acres

Until management plans are implemented the following will be covered by DNL:

Mt. Bross Botanical Area	105 acres
West Hoosier Ridge Botanical Area	54 acres
Iron Mountain Botanical Area	100 acres
Lost Lake Botanical Area	160 acres
Lost Park Botanical Area	160 acres
Spout Lake Botanical Area	120 acres
Droney Gulch Botanical Area	20 acres
Carrizo Frasera Botanical Area	400 acres

**For the purpose of:**

Protecting unique ecosystems, threatened and endangered plant and animal species, and the integrity of research activities within the above listed Areas.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820, FS Oil & Gas Regulations, 36 CFR, Sec. 228.104.)

Form #/Date

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### **Research Natural and Special Interest Areas**

Research Natural and Special Interest Areas are established to provide emphasis for research, study, observations, monitoring and educational activities that are nondestructive and nonmanipulative, that maintain unmodified conditions, or ensure the protection of species of interest.

All designated RNA's are identified in the Forest Plan as candidates for formal withdrawal. They are identified as DNL areas until the withdrawals are completed.

The Lesser Prairie Chicken Zoological Area has presently existing gas and oil leases and also has divided minerals ownership patterns. The enabling documents for it and the Queen's Canyon Geologic Area call for a CSU stipulation to be applied within the areas.

Management plans for the other existing and proposed Botanical Areas have not been prepared. These lands will be discretionarily removed from leasing until their management plans have been completed.

LEASE NOTICE - Special Uses

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Serial No. \_\_\_\_\_

**LEASE NOTICE**  
(Leases Containing an Electronic Communication Site)

The \_\_\_\_\_ Communication Site is located within a portion of the lease area.

In accordance with Section 6 of the Standard Lease Terms, the lessee shall coordinate with the Forest Service and the permit holder(s) to minimize potential user conflicts. The following Lease Notice measures will apply.

1. Drilling operations will be located so as not to cause structural damage, either directly or indirectly, to the structures authorized by special use permit.
2. Drilling rigs will be located out of microwave paths or at a location agreed to by the permit holder(s), Lessee and the Forest Service, that will not interfere with electronic transmission or reception.

LEASE NOTICE - Special Uses

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Serial No. \_\_\_\_\_

**LEASE NOTICE**  
(Other Occupancies Authorized by Special Use)

A special use authorization issued to \_\_\_\_\_ for a \_\_\_\_\_ use dated \_\_\_\_\_ occupying \_\_\_\_\_ acres and/or \_\_\_\_\_ miles is located \_\_\_\_\_, which is within your lease parcel.

In accordance with Section 6 of the Standard Lease Terms, exploration and development activities must occur as to avoid damage to the improvements or interference with this authorized use.

Form #/Date

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## **SPECIAL USES**

Special uses are valid uses which have been granted to permittees for communication facilities, water or energy pipelines, recreation uses, and other uses. A Lease Notice will identify these potentially conflicting uses for consideration in development of Surface Use Plans of Operation at the APD stage.

Lease Notice - Special Uses (Ski Areas)

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Serial No. \_\_\_\_\_

**NO SURFACE OCCUPANCY STIPULATION**

**No leasing is allowed on the lands described below: (legal subdivision or other description)**

All lands allocated to Management Prescription 1B-1 (Ski Area Management) in the Forest Land and Resource Management Plan are to be withdrawn from mineral entry. Locate roads outside of ski area permit boundary unless alternative routes have been reviewed and rejected as being more environmentally damaging.

**For the purpose of:**

Protecting the investment of facilities within the site, the use authorized by permit, safety of the users, and the natural environment that initially made the site desirable for a ski area.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2920, FS Oil & Gas Regulations, 36 CFR, Sec. 228.104.)

Form #/Date

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### **Special Uses (Ski Areas)**

**The management of ski area permits identifies that these areas should be withdrawn from mineral entry. It also calls for management to enhance visual quality, diversity, and recreation opportunities and to provide for a healthy forest cover in existing winter sports site.**

**The DNL shall be in place until the withdrawal is completed.**

**LEASE NOTICE - Threatened & Endangered Species**

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Serial No. \_\_\_\_\_

**LEASE NOTICE**  
**Threatened and Endangered Species**

**Oil and gas operations will be governed by the Endangered Species Act on all know locations of T&E species.**

On all known locations of T&E species and in consultation with the US Fish and Wildlife Service and the Colorado Natural Areas Program, a mitigation plan will be prepared and approved prior to any ground disturbing activity.

**For the purpose of:**

Meet legal requirements for the protection of threatened and endangered species.

Any changes to this stipulation will be made in accordance with the land use plan and/or the regulatory provisions for such changes. (For guidance on the use of this stipulation, see BLM Manual 1624 and 3101 or FS Manual 1950 and 2820, FS Oil & Gas Regulations, 36 CFR, Sec. 228.104.)

Form #/Date

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### **Threatened and Endangered Species**

The legal requirements for the protection of threatened and endangered species requires adequate mitigation which may include avoidance, substitution of habitat, or other costly mitigation action.

Known and potential locations and associated habitats of federal and state T&E wildlife and fish species are described in Chapter III of this EIS. Known habitat locations of federal and state T&E plants, sensitive plant associations, and plants of special concern are also identified in Chapter III. Resource Base Quad Maps are on file in the Forest Supervisor's Office of the Pike and San Isabel National Forests, Comanche and Cimarron National Grasslands.

A Lease Notice will be attached to new leases where site-specific surveys show the presence of these T&E wildlife and fish species in other areas within the Grasslands. This Lease Notice will stipulate that proposals for gas and oil operations within identified T&E species habitat areas will require consultation with the US Fish and Wildlife Service and the Colorado Natural Areas Program.

LEASE NOTICE - Vegetation (Timber)

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Serial No. \_\_\_\_\_

**LEASE NOTICE**  
(Leases Within Active or Planned Timber Sale Areas)

*Active Timber Sales Under 2400-3(T) or 2400-6(T) Contract:*

In accordance with Section 6 of the Standard Lease Terms, the Lessee shall coordinate with the Forest Service and Timber Sale Purchaser to minimize potential user conflicts. The following Lease Notice measures will apply, unless waived in writing by the Authorized Forest Officer in the site specific NEPA decision document at the APD phase.

1. Standing timber to be affected by lessees operations, and slash created by lessees operations, shall be disposed of as agreed to by Forest Service and Lessee (FSM 2464; Standard Provisions of 2400-3(T) or 2400-6(T), Timber Sale Contract).
2. Lessee shall submit an operating plan which will mitigate potential conflict with Purchaser's operations to the satisfaction of the Forest Service. Lessee's operating plan shall address public safety and Forest Service Officer's safety during performance of administrative duties.
3. Lessee shall perform or pay for road maintenance work, commensurate with lessee's use, on roads controlled by Forest Service and used by Lessee in connection with lease. Road maintenance specifications and required deposits shall be those stated in the timber sale contract provisions, unless Forest Service specifies otherwise. (FSM 7732.22; Standard Provision 8 of 2400-3(T) Timber Sale Contract; Standard Provision BT5.4 of 2400-6(T) Timber Sale Contract).

*Planned Timber Sales:*

In accordance with Section 6 of the Standard Lease Terms, the Lessee and Forest Service shall perform on-the-ground coordination to minimize potential conflicts with timber sales planned under 2400-3(T) or 2400-6(T) contracts.

Form #/ Date

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### **Vegetation (Timber)**

In order to protect timber purchaser and lessee rights and minimize potential conflicts, lessee shall coordinate with the Forest Service and timber sale purchaser for all activities. The following lists are multi-year schedules for timber activity on the Unit. These schedules may be changed. If changes occur, lessee will be notified.

This program is displayed by Exhibits A-3 and A-4.