APPENDIX A - SCENIC RESOURCE INVENTORIES

The following information is available at the Supervisor's Office in Dillon, MT, and serves to develop a forestwide Scenic Integrity Objective Map based on the matrix in the Scenic Resources section of the plan. This information applies to site-specific project analysis.

Scenic Attractiveness

A Forest wide Scenic Attractiveness layer is available in the GIS database, and will be used to map SIOs.

Landscape Visibility Mapping

Landscape visibility mapping involves consideration of categories of concern levels. The general categories are listed first in this section and the BDNF concern level list follows identifying specific routes and sites of concern**.**

Concern Level One:

Paved highway sections across and within 15 miles of the Forest boundary, includes Interstates, Federal and State highways, forest and county roads and other jurisdictions.

All designated National Historic, Scenic, and Recreation trails, National Scenic and Backcountry Byways, National Landmarks and Historic Sites.

All National Forest Campgrounds

All State Parks and Campground

All incorporated towns

All eligible Wild, Scenic, and Recreation rivers

Developed Campgrounds and Recreation Resorts

Concern Level Two

All Forest Service Trailheads

Forest Service Cabins and Administrative Sites

The following are routes and sites identified for mapping minimum Scenic Integrity Levels according to the Scenic Integrity Matrix.

Concern Level List

Big Hole Landscape: Butte, Dillon, Wisdom, and Wise River Ranger Districts		
Concern Level One	**Route**	**Extent of Concern**
	Interstate Highway 15	Melrose to Rocker
	State Highway 278	Badger Pass to Wisdom
	State Highway 43	Interstate 15 to Chief Joseph Pass
	County Highway 274	Highway 43 to the Continental Divide
	Continental Divide National Scenic Trail	I-15 Divide Junction to Goldstone Pass
	Lewis and Clark National Historic Trail	Gibbons Pass to Badger Pass
	Nez Perce National Historic Trail	Gibbons Pass to Bannock Pass
	Forest Trail 103, May Creek National Recreation Trail	Highway 43 to the Continental Divide
	Big Hole River, including BLM Suitable National Recreational River Segment``	Hwy 43 bridge (T1N, R14W, Sec. 26) to Maiden Rock Campground
	Site	
	All towns along Highways 43 and 278 Beaver Dam Campground North Van Houten Campground Big Hole National Battlefield Pintler Campground May Creek Campground Twin Lakes Campground Miner Lake Campground Seymour Lake Campground Mussigbrod Campground South Van Houten Campground	
Concern	**Route**	**Extent of Concern**

Level Two	Beaverhead Co. Lower North Fork Road	Its entire length north of Highway 43
	Forest Road 183 and 183A, and connecting Beaverhead Co. road	Highway 278 to Twin Lakes Campground
	Forest Road 182, Miner Lake Road and connection Beaverhead Co. road	Highway 278 to Miner Lake Trailhead
	Forest Road 573.2	North Fork Road to Mussigbrod Campground
	Forest Road 943 and county connecting roads	Highway 43 to Forest Road 624
	Forest Road 944 and 945, Foothills Road	Highway 278 to Forest Road 624
	Forest Road 185	Highway 43 to Pintler Campground
	Forest Road 96	Interstate 15 to Beaverdam Campground
	Chief Joseph Ski Trail System	All trails, Gordon Reese Cabin, and parking
	Forest Road 624	Highway 43 to Big Hole Pass
	Site	
	n/a	
Boulder River Landscape: Butte and Jefferson Ranger Districts		
Concern Level One	**Route**	**Extent of Concern**
	Interstate Highway 15	I-15 crossing to the top of Boulder Hill
	State Highway 69	Boulder to Jack Creek
	Forest Road 82, Boulder River Road	Interstate 15 to the Continental Divide
	Continental Divide National Scenic Trail	Our Lady of the Rockies to Bison Mountain

	Haystack National Recreation Trail	Interstate 15 to Haystack Mountain summit
	Site	
	Basin Boulder Sheepshead Recreation Area Lowland Campground Elder Creek Picnic Area Whitehouse Campground Cottonwood Lake	
Concern Level Two	**Route**	**Extent of Concern**
	Forest Road 9485	Sheepshead Day Use to the Continental Divide
	Forest Road 442	Forest Road 82 to the Continental Divide
	Forest Road 8675, Little Boulder Road	Highway 63 to Elder Creek Picnic Area
	Forest Road 8505, Sunday Gulch Road	Interstate 15 to the CDNST
	Site	
	n/a	
Clark Fork Flint Landscape: Pintler Ranger District		
Concern Level One	**Route**	**Extent of Concern**
	Interstate Highway 90	Butte to Medicine Tree Hill
	US Highway 12	First 12 miles north from Garrison Junction
	State Highway 1, Pintler Scenic Loop	Drummond to Interstate 90
	State Highway 48	Interstate 90 to Highway 1
	State Highway 38 (Skalkaho Road)	Highway 1 to the Bitterroot NF boundary

	County Highway 441	Interstate 90 to Highway 1
	County Highway 274	Highway 1 to the Continental Divide
	County Road 348	Phillipsburg to Highway 38
	Forest Road 82 and county connector road	From Continental Divide to Deer Lodge
	Forest Road 8686 (Georgetown Lake Low Road)	Entire length
	Forest Road 195	Highway 1 to Anaconda Job Corp Center
	Forest Road 65	Loop from Highway 1 by Echo Lake
	Forest Road 1598	Forest Road 65 to Discover Basin Ski Area
	Forest Road 406	Highway 1 to Forest Road 672
	Forest Road 672	Highway 1 to Highway 38
	Forest Road 102	County Road 48 to the Lolo National Forest boundary
	Continental Divide National Scenic Trail	Our Lady of the Rockies to Bison Mt
	Discovery Basin Ski Trails and facilities	All trails and lifts
	Lodgepole National Recreation Trail	Highway 1 to Forest Road 65
	Site	

	All towns along included highway extents Georgetown Lake and surrounding recreation sites Flint Creek Campground Spring Hill Campground Warm Springs Picnic Area Spring Hill Picnic Area Warm Springs Campground Grant-Kohrs National Historic Site Lost Creek State Park Orofino Campground Racetrack Campground	
Concern Level Two	**Route**	**Extent of Concern**
	Forest Roads 705 and 1504, and county road following Cottonwood Creek. Also known as Spring/Emery Loop	Cottonwood Creek to Peterson Creek
	Forest Roads 707	Interstate 90 to Highway 1
	Forest Roads 302 and 645, Gold Creek	Interstate 90 to Doney Cabin
	Forest Road 78615	Gold Creek Road to Forest Road 636
	Forest Road 636	Forest Road 1554 to Forest Road 1557
	Forest Road 1544	Forest Road 636 to Forest Road 707
	Forest Road 1557	Forest Road 636 to Forest Road 1554
	Forest Road 168 and connecting county road	Deer Lodge to Rock Creek Lake
	Forest Road 670 and connecting county road	Interstate 90 to Caruthers Lake
	Forest Road 170	Highway 1 to Warm Springs Picnic Area
	Forest Road 675	Highway 1 to Storm Lake

	Forest Road 635	County Road 273 to Lost Creek Campground
	County Road 273	From Highway 48 to Galin
	Forest Road 169, Racetrack Creek Road	Warm Springs to end of road
	Forest Road 5146	Forest Road 169 to Pozega Lake
	Forest Road 5008 and 5147	Interstate 90 to Bowman Lakes
	Forest Road 5107	Forest Road 80 to end
	Forest Road 241	Forest Road 102 to Forest Trail 2
	Forest Road 261 and 5141	Forest Road 672 to East Fork Reservoir
	Forest Road 242	Forest Road 65 to Forest Road 1525
	Forest Road 1525	Phillipsburg to Forest Road 242
	Forest Road 676	State Highway 1 to Princeton
	Forest Trails 32, 33, and 34	Flints, between Phillipsburg and Boulder Cr.
	Site	
	n/a	

Elkhorn Mountains Landscape: Jefferson Ranger District & Helena National Forest

Mgt direction from the 1987 Deerlodge Plan remains until the Helena National Forest revises Forest Plan direction for this area.

Gravelly Landscape: Madison Ranger District

Concern Level One	**Route**	**Extent of Concern**
	Interstate Highway 15	Red Rock to Monida Pass
	State Highway 287	Sheridan to Silver Star
	US Highway 287	Norris to Quake Lake
	State Highway 87	US Highway 287 to Henry's Lake, ID

	Madison County 248, Ruby River Road	Alder to Ruby Reservoir
	Blacktail Road	Dillon to Centennial Valley Road
	Southside Centennial Valley Road	Monida to Henry's Lake, ID
	Madison River	Earthquake Lake to Norris
	Continental Divide National Scenic Trail	Hellroaring Creek to Raynolds Pass
	Highway 41	Twin Bridges to Dillon
	Site	
	All towns along highway concern extents Ruby Reservoir Recreation Area Cottonwood Campground Earthquake Lake Recreation Area West Fork Madison Rest Area Cliff and Wade Lakes Recreation Complex Elk Lake Recreation Area Madison River Recreation Area Red Rock Lake National Wildlife Refuge	
Concern Level Two	**Route**	**Extent of Concern**
	Blacktail Road	Price Creek to the Centennial Valley Road
	Ruby Road (Centennial Divide Road)	Ruby Reservoir to the Centennial Valley Road
	North Side Centennial Valley Road	Blacktail Road to Forest Road 8384
	Forest Road 8384, Elk Lake Road	North Side Centennial Valley Road to Elk Lake
	Forest Road 163, Warm Springs Road	Ruby River Road to Forest Road 290
	Forest Road 347	Ruby River Road to Eureka Basin
	Forest Road 290, Gravelly Range Road	Eureka Basin to Forest Road 292

	Forest Road 237, Standard Creek Road	Forest Road 209 to Forest Road 290
	Forest Road 209, West Fork Road	US Highway 287 to Little Elk River
	Forest Roads 292, Call Road and county connecting road	Ennis to Forest Road 290
	County Road 122, Horn Creek Road	State Highway 87 to Cliff Lake
	Forest Road 572	US Highway 287 to Wade Lake
	Forest Road 8386A	Forest Road 572 to Cliff Lake
	Forest Road 325	Blacktail Road to Antone Station
	Snowcrest Trail segments 603, 69, and 670	Vigilante to Antone Station and to Peterson Basin
	Divide Trail 61	Divide Administrative Site to Snowcrest Trail
	East Fork Blacktail Trail 69	East Fork Blacktail Road to Snowcrest Trail
	Hidden Lake Trail 35	Elk Lake to Cliff Lake
	Lobo Mesa Trail 405	Forest Road 290 to West Fork Trailhead
	Forest Road 1206, Elk River Jeep Trail	Forest Road 209 to Forest Trail 79
	Site	
	Hidden Lake Otter Lake Goose Lake	
Jefferson River Landscape: Butte and Jefferson Ranger District		
Concern Level One	**Route**	**Extent of Concern**
	Interstate Highway 90	Homestake Pass to Cardwell
	State Highway 2	Pipestone Pass to Whitehall
	State Highway 55	State Highway 41 to Whitehall
	State Highway 69	Whitehall to Boulder

	State Highway 41	State Highway 55 to Twin Bridges
	Continental Divide National Scenic Trail	Our Lady of the Rockies to Rocky Ridge Trailhead
	Jefferson River	Twin Bridges to Whitehall
	Forest Road 84	Continental Divide to Forest Boundary
	Big Hole River	Maiden Rock to Twin Bridges
	Site	
	Delmoe Lake Campground and Picnic Area Delmoe Lake Toll Mountain Campground Homestake Lake Picnic Area Pigeon Creek Campground Whitehall	
Concern Level Two	**Route**	**Extent of Concern**
	Whitetail Road	Boulder to Whitehall
	Forest Road 222	I-90 to Forest Road 8689
	Forest Road 8689	Forest Road 222 to I-90
	Site	
	n/a	
Lima-Tendoy Landscape: Dillon Ranger District		
Concern Level One	**Route**	**Extent of Concern**
	Interstate Highway 15	Melrose to Monida, including communities
	State Highway 278	Dillon to Wisdom, including Jackson
	Continental Divide National Scenic Trail	Goldstone Pass to Monida Pass

	Lewis and Clark National Historic Trail	Carroll Hill to State Highway 324 to Dillon, and Dillon to Lemhi Pass
	Nez Perce National Historic Trail	Wisdom to Bannock Pass
	Road 257, Medicine Lodge BLM Backcountry Byway	From Highway 278 to Interstate 15
	Site	
	Clark Canyon Reservoir and all shoreline developments Reservoir Lake Campground Lemhi Pass National Historic Landmark East Creek Campground Bannack State Park	
Concern Level Two	**Route**	**Extent of Concern**
	None Identified	n/a
	Site	
	n/a	
Madison Landscape: Madison Ranger District		
Concern Level One	**Route**	**Extent of Concern**
	US Highway 287	Earthquake Lake Visitor Center to Norris
	State Highway 287	Ennis to Madison Overlook
	Site	
	Bear Creek Trailhead	
Concern Level Two	**Route**	**Extent of Concern**
	None Identified	n/a
	Site	
	n/a	
Pioneer Landscape: Dillon, Wisdom, and Wise River Ranger Districts		
Concern Level One	**Route**	**Extent of Concern**
	Interstate Highway 15	Rocker to Monida Pass

	State Highway 278	Dillon to Wisdom
	State Highway 43	Interstate 15 to Chief Joseph Pass
	Forest Road 73, Pioneer Mountain National Forest Scenic Byway	Wise River to Highway 278
	Forest Road 1299	The Byway to Lacy Creek Trailhead
	Forest Road 2417	The Byway to Odell Creek Trailhead
	Forest Road 98, Birch Creek Road	Interstate 15 to Dinner Station Campground
	Forest Road 8210, Rock Creek Road	Interstate 15 to Browns Lake
	Forest Trail 750, Pioneer Loop National Recreation Trail	The Byway to Lacy Creek Trailhead
	Forest Trail 428, Grasshopper Ridge National Recreation Trail	Elkhorn Hot Springs to the Byway
	Lewis and Clark National Historic Trail	Trail Creek Road Junction to Twin Bridges
	Nez Perce National Historic Trail	Trail Creek Road Junction to Reservoir Lake
	Site	

	Towns along the extents of Interstate 15, Highway 278, and Highway 43 All Forest recreation sites along the Pioneer Mountains Scenic Byway Steel Creek Campground Coolidge Townsite and Trailhead Mono Creek Campground & Trailhead Elkhorn Hot Springs Resort Maverick Mountain Ski Area Canyon Creek Campground Canyon Creek Charcoal Kilns Browns Lake Campground Dinner Station Campground Aspen Picnic Area Birch Creek CCC camp and Bender Center	
Concern Level Two	**Routes**	**Extent of Concern**
	Beaverhead Co. Trapper Creek Road	Melrose to Glendale
	Forest Road 7401, Canyon Creek Road	Forest Road 187 to Forest Trail 92
	Forest Road 187, Quartz Hill Road	Highway 43 to Glendale
	Beaverhead Co. Argenta Road	Dillon to Argenta, and spur to Highway 278
	Forest Road 806 and 192, French Cr.	Birch Creek Road to Argenta
	Willow Creek Road, Forest Road 8200	Birch Creek Road to end of road
	Doolittle Road, Forest Road 2421	Highway 43 to end of road
	Forest Road 90	Wisdom to Steel Creek Campground
	Site	

	Steel Creek Trailhead Sawtooth Trailhead Birch Creek Cabin	
Tobacco Root Landscape: Jefferson and Madison Ranger Districts		
Concern Level One	**Route**	**Extent of Concern**
	Interstate Highway 90	Homestake Pass to Three Forks
	US Highway 287	Cameron to Three Forks
	State Highway 287	Ennis to Twin Bridges, and communities
	State Highway 41	Dillon to State Highway 2, and communities
	State Highway 55	Whitehall to Highway 41, and Whitehall
	State Highway 2	Pipestone Pass to Three Forks
	Highway 359	Interstate 90 to U.S. 287
	Madison Co Highway 283	Harrison to Pony, including communities
	Forest Road 107, South Boulder Road	Highway 359 to Mammoth
	Madison Co. and Forest Road 111	Sheridan to Upper Branham Lake
	Lake Louise National Recreation Trail	Forest Road 107 to end of trail
	Lost Cabin National Recreation Trail	Forest Road 107 to end of trail
	Jefferson River	Twin Bridges to Three Forks
	Madison River	Cameron To Bear Trap
	Site	

	Towns along Interstate 90, and Highways 2, 287, 41, and 84 Pony Mammoth Mill Creek Campground and Day Use Balance Rock Campground and Day Use Branham Lakes Campground Ennis Lake Recreation Complex Potosi Campground	
Concern Level Two	**Route**	**Extent of Concern**
	Forest Road 107, South Boulder River Road	Mammoth to Brannan Lakes
	Forest Road 160 and Madison Co. connecting road, N. Meadow Cr. Road	McAllister to Sure Shot Lakes
	Forest Road 1221 and Madison Co. connecting road, S. Meadow Creek Road	McAllister to South Meadow Creek Lake
	Forest Road 160 and Madison Co. connecting road, S. Willow Creek Road	Pony to Potosi Campground
	Forest Trail 301	Pony to Hollow Top Lakes
	Forest Trail 338 and 366 and Forest Road 965	Forest Road 160 to Lupine and Twin Lakes
	Site	
	n/a	
Upper Clark Fork Landscape: Butte Ranger District		
Concern Level One	**Route**	**Extent of Concern**
	Interstate Highway 90	Warm Springs to Homestake Pass
	State Hwy 1, Pintler Scenic Loop	Phillipsburg to Flint Creek
	Interstate Highway 15	Elk Park to Divide
	State Highway #2	Butte to Pipestone Pass

	Highway 441	Fairmont Hot Springs to Interstate 90
	Forest Road 8493, Roosevelt Drive	Forest Road 84 to the end of the road
	Forest Road 84	Highway 2 to CDNST
	Continental Divide National Scenic Trail	Our Lady of the Rockies to Bison Mountain
	Site	
	Butte Homestake Pass Trailhead Thompson Park Beaverdam Campground Pipestone Pass Trailhead	
Concern Level Two	**Route**	**Extent of Concern**
	Forest Road 9485 and Silver Bow Co. connecting road, Lowland Road	Butte to the Continental Divide
	Forest Road 96	Interstate 15 to Beaverdam Campground
	Moulton Reservoir Ski Trail System	
	Site	
	n/a	
Upper Rock Creek Landscape: Pintler Ranger District		
Concern Level One	**Route**	**Extent of Concern**
	State Highway 38 (Skalkaho Road)	Scenic Highway 1 to Bitterroot Forest Boundary
	County Road 348	Phillipsburg to State Highway 38
	Forest Road 406	State Highway 1 to Forest Road 672
	County Road 102	County Road 384 to the Lolo Forest Boundary

	Forest Road 672	State Highway #1 to State Highway #38
	Discovery Basin Ski Trails and Facilities	All trails and lifts
	Site	
	Moose Lake and Moose Lake Campground Stony Campground East Fork Campground Crystal Creek Campground Spillway Campground	
Concern Level Two	**Route**	**Extent of Concern**
	Forest Road 5070	Highway 38 to end of road.
	Forest Road 5141	Forest Road 261 to Forest Road 5103
	Forest Road 88, Willow Creek Road	County Road 348 to the Lolo Forest boundary
	Forest Road 5106, Moose Lake Road	Highway 38 to the end of the road
	Forest Road 80, Copper Creek Road	Forest Road 5106 to the Bitterroot Forest line
	Forest Trail 2	Forest Road 241 to Stony Lake
	Forest Trail 10	State Road 38 to Stony Lake
	Forest Trail 12	State Road 38 to Fuse Lake
	Forest Trails 313, 168, 105, and 104	Lost Tooth Cabin to Frog Pond Basin
	Site	
	Medicine Lake Copper Creek Campground	

APPENDIX B - LEASE STIPULATIONS AND NOTICES

Background

The following information pertaining to lease stipulations is taken from the booklet, "Uniform Format for Oil and Gas Lease Stipulations," prepared by the Rocky Mountain Regional Coordinating Committee in March 1989. These guidelines were developed by the Bureau of Land Management (BLM) and the Forest Service.

Stipulations are conditions that are to be made part of a lease when the environmental and planning record demonstrates the necessity for the stipulations. The stipulation forms, in this appendix, provide standardized structure, wording, and usage. What, why, and how this mitigation/protection is to be accomplished is determined by the land management agency through land management planning and National Environmental Policy Act (NEPA) analysis.

If the determination is made, upon weighing the relative resource values, uses, and/or users, that conflict with oil and gas operations exist and cannot be adequately managed under the Standard Lease Terms, a lease stipulation is necessary. Land use/management plans serve as the primary vehicle for determining the necessity for lease stipulations (BLM Manual 1624). Documentation of the necessity for a stipulation is disclosed in planning documents and through site-specific analysis. Land management plans and/or NEPA documents also establish the guidelines by which future waivers, exceptions, or modifications may be granted. Substantial modification or waiver subsequent to lease issuance is subject to public review for at least a 30-day period in accordance with Section 5102.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 officer has limited authority to modify the site location 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. Specifically, Standard Lease Terms allow the authorized officer to move a well or other facility site up to 200 meters or delay operations for up to 60 days in a year.

The necessity for individual lease stipulations is documented in the lease-file record with reference to the appropriate land management plan or other leasing analysis document. The necessity for exceptions, waivers, or modifications also will be documented in the lease-file record through reference to the appropriate plan or other analysis. The uniform format for stipulations should be implemented when amendments or revisions of land management plans are prepared or by other appropriate means.

The uniform format for stipulations is designed to accommodate most existing stipulations by providing space to record the local mitigation objectives. The stipulations have been developed for the categories of:

No Surface Occupancy (NSO)

Timing Limitations (TL)

Conditional Surface Use (CSU)

This guidance also includes the use of lease notices. Also, there is provision for special or unique stipulations, such as those required by prior agreements between agencies when the standardized forms are not appropriate. In all cases, use of uniform forms for stipulations requires identification of specific resource values to be protected and description of the specific geographical area covered.

Standard Lease Terms

The Standard Lease Terms (ST) are contained in Form 3100-11, Offer to Lease and Lease for Oil and Gas, United States Department of the Interior, BLM, October 1992. They provide the lessee the right to use the leased land as needed to explore for, drill for, extract, remove, and dispose of oil and gas deposits located under the leased lands. Operations must be conducted in a manner that minimizes adverse impacts to the land, air, water, cultural, biological, and visual elements of the environment, as well as other land uses or users. Federal environmental protection laws such as the Clean Water Act, Endangered Species Act, and Historic Preservation Act, will be applied to all lands and operations and are included in the standard lease terms. If threatened or endangered species; objects of historic, cultural, or scientific value; or substantial unanticipated environmental effects are encountered during construction, all work affecting the resource will stop and the land management agency will be contacted.

Standard Lease Terms provide for reasonable measures to minimize adverse impacts to surface resources. These include, but are not limited to, modifications to the location or design of facilities, timing of operations, and specifications of interim and final reclamation measures. At a minimum, measures shall be deemed consistent with lease rights granted provided that they do not: require relocation of proposed operations by more than 200 meters; require that operations be sited off the leasehold; or prohibit new surface disturbing operations for a period in excess of 60 days in any lease year.

All leases on National Forest System (NFS) lands contain the “Stipulation for Lands of the National Forest System under Jurisdiction of Department of Agriculture,” requiring the lessee to comply with the rules and regulations of the Department of Agriculture. All leases are subject to regulations and formal orders of the Secretaries of the Interior and Agriculture in effect at the time of issuance.

Definitions

Conditions of Approval

Conditions of Approval (COA) are requirements under which an Application for a Permit to Drill or a Sundry Notice is approved.

Controlled Surface Use

Use and occupancy is allowed (unless restricted by another stipulation), but identified resource values require special operational constraints that may modify the lease rights. Controlled Surface Use (CSU) is used for operating guidance, not as a substitute for the NSO or timing stipulations.

Exception

Exemptions from a lease stipulation can be made on a case by case basis. The stipulation continues to apply to all other sites within the leasehold to which restrictive criteria apply.

Lease Notice

A Lease Notice (LN) provides more detailed information concerning limitations that already exist in law, lease terms, regulations, or operational orders. A lease notice also addresses special items the lessee should consider when planning operations, but does not impose new or additional restrictions. Lease notices attached to leases should not be confused with Notices to Lessees (NTL) (see 43 CFR 3160.0-5).

Modification

A modification is a fundamental change to the provisions of a lease stipulation, either temporarily or for the term of the lease. Therefore, a modification may include an exemption from or alteration to a stipulated requirement. Depending on the specific modification, the stipulation may or may not apply to all other sites within the leasehold to which the restrictive criteria apply.

No Surface Occupancy

Use or occupancy of the land surface for fluid mineral exploration or development is prohibited to protect identified resource values. The No Surface Occupation (NSO) stipulation includes stipulations that may have been worded as “No Surface Use/Occupancy,” “No Surface Disturbance,” “Conditional NSO,” and “Surface Disturbance or Surface Occupancy Restriction (by location).”

Notice to Lessees

A written notice issued by the BLM authorized officer. It implements regulations and operating orders, and serve as instructions on specific item(s) of importance within a state, district, or area.

Stipulation

A provision that modifies standard lease rights and is attached to and made a part of the lease.

Timing Limitation

A Timing Limitation (TL) prohibits surface use during specified time periods to protect identified resource values. This stipulation does not apply to the operation and maintenance of production facilities unless the findings of analysis demonstrate the continued need for such mitigation and that less stringent, project-specific mitigation measures would be in sufficient.

Waiver

Permanent exemption from a lease stipulation. The stipulation no longer applies anywhere within the leasehold.

No Surface Occupancy Stipulation Guidance

The No Surface Occupancy (NSO) stipulation is intended for use only when other stipulations are determined insufficient to adequately protect the public interest. The land management plan/NEPA document prepared for leasing must show that less restrictive stipulations were considered and determined by the authorized officer to be insufficient, i.e., show why the NSO stipulation is needed. The planning/NEPA record must also show that consideration was given to a no-lease alternative when applying an NSO stipulation. An NSO stipulation is not needed if the desired protection would not require relocation of proposed operations by more than 200 meters (43 CFR 3101.1-2).

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 management plan and/or NEPA document.

Land description may be stated as:

The “Entire Lease”

Distance from resources and facilities such as rivers, trails, campgrounds, etc.

Legal description

Geographic feature such as a 100-year floodplain

Municipal watershed, percent of slope, etc.

Special areas with identified boundaries--area of critical environmental concern, wild and scenic rivers, etc.

Other description that specifies the boundaries of the lands affected.

The estimated percent of the total lease area affected by the restriction must be given if no legal or geographic description of the location of the restriction is given. In other cases the estimated percent is optional (see Example B-1).

This Land and Resource Management Plan identifies the specific conditions for providing waivers, exceptions, or modifications to lease stipulations. Waivers, exceptions, or modifications must be supported by appropriate environmental analysis and documentation,

and are subject to the same test used to initially justify the imposition of this stipulation. Language may be added to the NSO stipulation form to provide the lessee with information or circumstances under which waivers, exceptions, or modifications would be considered. A waiver, exception, or modification may be approved if the record shows that circumstances or relative resource values have changed or that the lessee can demonstrate that operations can be conducted without causing unacceptable impacts, and that less restrictive stipulations will protect the public interest. Waivers, exceptions, or modifications can only be granted by the authorized officer. If the waiver, exception, or modification is inconsistent with the land management planning document, that document must be amended or the change disallowed.

If the authorized officer determines, prior to lease issuance, that a stipulation involves an issue of major concern, modification or waiver of the stipulation will be subject to public review (43 CFR 3101.1-4). The land management plan also may identify other cases when a public review is required for a waiver, exception, or modification. In such cases, wording such as the following should be added to the stipulation form to inform the lessee of the required public review: “A 30-day public notice period is required prior to modification or waiver of this stipulation.”

Timing Limitations Stipulation Guidance

The Timing Limitation (TL) Stipulation prohibits fluid mineral exploration and development activities for time periods less than yearlong. When using this stipulation, assure date(s) and location(s) are as specific as possible. ***A timing limitation 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).

The land use plan/NEPA document prepared for leasing must show less restrictive stipulations were considered insufficient. The environmental effects of exploration, development, and production activities may differ markedly from each other in scope and intensity. If the effects of reasonable foreseeable production activities necessitate timing limitation requirements, this need should be clearly documented in the record. The record should (shall?) also show that less stringent, project-specific mitigation may be insufficient. In such cases the stipulation language should be modified on a case-by case basis to clearly document that the timing limitation applies to all stages of activity.

The legal subdivision and resource value of concern must be identified in the stipulation and be tiered to a land use planning and/or NEPA document. The timing limitations for separate purposes may be written on separate forms or as combined stipulation (see Example Timing Limitations). During the review and decision-making process for Application for Permit to Drill (APD) and Sundry Notices, the date(s) and location(s) should be refined based on current information.

The Beaverhead-Deerlodge Forest Plan identifies the specific conditions for providing waivers, exceptions, or modifications to lease stipulations. Waivers, exceptions, or modifications of this stipulation, such as continuing drilling operations into a restricted time period, must be supported with appropriate environmental analysis and documentation. They will be subject to the same test used to initially justify the imposition of this stipulation. Language may be added to the stipulation form to provide the lessee with information or

circumstances under which waiver, exception or modification would be considered. The need for one-time, case-by case exceptions of timing limitations stipulation may arise from complications or emergencies during the drilling program. The need for timely review and decision making is great in such cases. For this reason, it is desirable that land use plans/NEPA documents clarify how the review procedures and other requirements, if any, would apply in such cases.

A waiver, exception, or modification may be approved if the record shows how circumstances or relative resource values have changed or that the lessee can demonstrate operations can be conducted without causing unacceptable impacts, and that less restrictive stipulations would protect the public interest. If waivers, exceptions or modifications are inconsistent with the land use planning document - and that document does not disclose the conditions under which such changes would be allowed - the plan or NEPA document must be amended as necessary, or the change disallowed.

If the authorized officer determines, prior to lease issuance, a stipulation involves an issue of major concern, modification or waiver of the stipulation would be subject to public review (e.g., 43 CFR 3101.1-4). The land use plan also may identify other cases where a public review is required for waiver, exception, or modification. In such cases, wording such as the following should be added to stipulation form to inform the lessee of the required public review: “A 30-day public notice period is required prior to modification or waiver of this stipulation.”

Controlled Surface Use Stipulation Guidance

The Controlled Surface Use (CSU) stipulation is intended to be used when fluid mineral occupancy and use are generally 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 that 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 (No Surface Occupancy) or Timing Limitation stipulations, which prohibit all occupancy and use 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. This stipulation should be limited to areas where restrictions or controls are necessary for specific types of activities rather than all activity.

The stipulation should explicitly describe the activity to be restricted or limited, or the operation constraints required, and must identify the applicable area and the reason for the requirement. The record must show that less restrictive stipulations were considered and determined to be insufficient. 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 management plan and/or NEPA document.

Land management plans and/or NEPA documents should identify the specific conditions under which waivers, exceptions, or modifications to lease stipulations would be considered. Waivers, exceptions, or modifications of this stipulation must be supported with appropriate environmental analysis and documentation, and will be subject to the same test used to

initially justify the imposition of this stipulation. Language may be added to the stipulation form to provide the lessee with information or circumstances under which a waiver, exception, or modification would be considered. A waiver, exception, or modification may be approved if the record shows that circumstances or relative resource value have changed or that the lessee can demonstrate that operations can be conducted without causing unacceptable impact, and that less restrictive stipulations would protect the public interest. Waivers, exceptions, or modifications can only be granted by the authorized officer. If the waiver, exception, or modification is inconsistent with the land management planning document, that document must be amended as necessary or the change disallowed.

If the authorized officer determines, prior to lease issuance, that a stipulation involves an issue of major concern, modification or waiver of the stipulation would be subject to public review (e.g., 43 CFR 3101.1-4). The land management plan also may identify other cases when a public review is required for waiver, exception, or modification. In such cases, wording such as the following should be added to the stipulation form to inform the lessee of the required public review: “A 30-day public notice period is required prior to modification or waiver of this stipulation.”

Special Administration Stipulation Guidance

There is no required or suggested uniform format for special administration stipulations. They are usually provided by another agency or organization. However, other agencies are encouraged to use the uniform stipulation format.

Special Administration stipulations are used in situations where the three uniform stipulation forms or lease notices do not adequately address the concern. A Special Administration stipulation are used only when special external conditions, such as pre-existing agreements with other agencies, require use of a one-of-a-kind stipulation that is not used in any other area or situation. The resource use or value, location, and specific restrictions must be clearly identified. In addition, the external agency, agreement, or pre-existing use that dictates the special restrictions must be identified. The stipulation should state if and under what circumstances a waiver, exception, or modification may be allowed.

STIPULATIONS

PRESCRIBED STIPULATIONS - This section describes the stipulations that will be attached to Beaverhead National Forest leases. Conditions are also described for waivers, exceptions, and modifications as follows:

Eligible Scenic and Recreation Segments of Wild and Scenic River Candidates

Stipulation:	Controlled Surface Use - ¼ mile buffer
Mapping Criteria:	Scenic and Recreational River Segments GIS layer s21_ScenicRecRivers
Objective:	To protect scenic and recreational river values along the river corridor and within a buffer zone of ¼ mile on either side. Proposed activities must be designed or located in such a manner as to not affect the eligibility of the river segment.
Waiver:	This stipulation may be waived if it is determined the entire lease no longer contains a scenic and recreational river candidate area.
Exception:	An exception may be granted if the operator can demonstrate in a surface use plan of operations that the scenic and recreational river values of the area can be maintained at a level acceptable to the authorized forest officer.
Modification:	This stipulation may be modified if it is determined portions of the lease no longer contain scenic and recreational river candidate areas.
Justification:	The area is a candidate area for wild and scenic rivers designation. Therefore, a Controlled Surface Use stipulation is necessary to notify potential lessees of the resource concern and restrictions on activities. Under Standard Lease Terms some impacts could be mitigated but operations could not be denied if all the scenic and recreational values could not be protected. The No Surface Occupancy or No Lease stipulations were not considered appropriate since impacts can be mitigated using a Controlled Surface Use stipulation and not leasing could subject the federal mineral estate to drainage from adjacent leased lands.

Research Natural Areas

Stipulation:	No Surface Occupancy
Mapping Criteria:	Research Natural Areas GIS layer s23_ResearchNatAreas
Objective:	To preclude surface disturbance and maintain near natural conditions for future research.
Waiver:	A waiver may be granted if it is determined the entire leasehold no longer contains portions of a Research Natural Area.
Exception:	None
Modification:	A modification may be granted if the Research Natural Area boundaries have changed.
Justification:	A commitment has been made to maintain the area in near natural conditions for future research and use and a No Surface Occupancy stipulation is deemed necessary to protect the area in such a condition. Also, the area contains unique resources that cannot be provided elsewhere on the forest. If the operations within these areas would be allowed under either a Controlled Surface Use or Timing Limitation stipulations, or under Standard Lease Terms, natural conditions and value for future research within the area could be affected. The

No Lease stipulation is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation and not leasing could subject the federal mineral estate to drainage from adjacent leased lands.

Eligible Wild Segments of Wild and Scenic River Candidates

Stipulation:	Administratively Unavailable.
Mapping Criteria:	One quarter mile buffer around segments. GIS layer s22_WildRivers
Objective:	n/a
Waiver:	n/a
Exception:	n/a
Modification:	n/a
Justification:	n/a

Inventoried Roadless Areas

Stipulation:	Controlled Surface Use
Mapping Criteria:	2001 Roadless Area Conservation Rule FEIS Inventoried Roadless Areas GIS layer s25_ira
Objective:	To preclude new temporary roads, permanent roads, road construction or reconstruction as defined in 36 CFR 294.11
Waiver:	This stipulation may cease to apply in the event the District Court orders reinstating the 2001 Rule are reversed, set aside, or if the Forest Service determines that other events have caused the 2001 rule to no longer be in effect.
Exception:	Same as waiver
Modification:	Same as waiver
Justification:	Compliance with Orders of the District Court C05-03508 and C05-04038

Big Game Winter Range

Stipulation:	July 2006, Montana Fish, Wildlife, and Parks - Big Game Winter Range. GIS layer s05_BigGameWinterRange
Mapping Criteria:	Timing Limitation
Objective:	To preclude surface disturbing activities in big game winter range. Big game can be adversely affected by drilling activity, causing increased stress and/or displacement during the critical December 2 to May 15 time period.
Waiver:	A waiver may be granted if habitat studies, in coordination with Montana Fish, Wildlife, and Parks, conclude the area affected by this stipulation is no longer used as big game winter range.
Exception:	An exception may be granted if seasonal conditions are such that the animals have moved and are not using the specified area during the time they would normally be expected.
Modification:	A modification of the stipulation may be granted if habitat studies show that a portion of the area is not important winter range.

Justification:	Standard Lease Terms provide for delay of activities for up to 60 days. Since the critical period extends for approximately 166 days, the Standard Lease Terms would not be adequate. The No Lease or No Surface Occupancy stipulations are overly restrictive since operations conducted outside the winter range period would have a minimal effect on big game.

Trumpeter Swan Nests

Stipulation:	Timing Limitation
Mapping Criteria:	Within ½ mile of known trumpeter swan nests. GIS layer s06_Nests
Objective:	To preclude surface disturbing activities near nests which may cause increased stress and/or displacement of birds during the critical April 1 to September 1 time period.
Waiver:	A waiver may be granted if new habitat studies, in coordination with Montana Fish, Wildlife, and Parks, conclude the area affected by this stipulation is not critical for trumpeter swans.
Exception:	An exception may be granted if the operator demonstrates in a plan of operations, that impacts from the proposed action are acceptable or can be adequately mitigated.
Modification:	A modification of the stipulation may be granted if new habitat studies show a portion of the area is not used by trumpeter swans.
Justification:	Surface activities within these areas could adversely impact trumpeter swans. If operations were allowed to occur under Standard Lease Terms or Controlled Surface Use, swans could be displaced. The No Surface Occupancy and No Lease stipulations are overly restrictive since impacts can be avoided by using the Timing Limitation stipulation.

Bald Eagle and Peregrine Falcon Nests

Stipulation:	No Surface Occupancy
Mapping Criteria:	One half mile around bald eagle and peregrine falcon nests from February 1 to September 1. GIS layer s07_BaldEagleETALL
Objective:	To protect habitat and to facilitate recovery of the species.
Waiver:	A waiver may be granted if new habitat studies, coordinated with the US Fish and Wildlife Service, conclude the area affected by this stipulation no longer contains an eagle or falcon nest.
Exception:	An exception may be granted if the operator demonstrates, in a plan of operations, that impacts from the proposed action are acceptable or can be adequately mitigated.
Modification:	Same as waiver.
Justification:	A No Surface Occupancy stipulation is necessary to ensure continued use of the nest. If operations within these areas were to be under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Least Terms, the use of these areas by eagles or falcons would be affected. The No Lease stipulation is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation. No Lease could expose the federal mineral estate to revenue losses as a result of drainage from adjacent leased lands.

Bald Eagle and Peregrine Falcon Habitat

Stipulation:	Timing Limitation
Mapping Criteria:	An additional one half mile from No Surface Occupation area. GIS layer s07_BaldEagleETALL
Objective:	Buffer is and additional ½ mile to preclude surface disturbing activities around nests. Disturbance may cause increased stress and/or displacement of eagles or falcons during the critical February 1 to September 1 time period.
Waiver:	A waiver may be granted if new habitat studies, coordinated with the US Fish and Wildlife Service, conclude the area affected is not critical for eagles or peregrine falcons.
Exception:	An exception may be granted if the operator demonstrates, in a plan of operations, that impacts from the proposed action are acceptable or can be adequately mitigated. If the nest area contains only a peregrine falcon nest, an exception to the timing limitation from February 1 through March 31 would be considered.
Modification:	A modification of the stipulation may be granted if new habitat studies show a portion of the area is not used by eagles or peregrine falcons.
Justification:	Surface activities within these areas could adversely impact bald eagles or peregrine falcons. If operations were allowed under Standard Lease Terms or Controlled Surface Use, eagles and peregrine falcons could be displaced. The No Surface Occupancy and No Lease stipulations are overly restrictive since impacts can be avoided by using a Timing Limitation stipulation.

Grizzly Bear Habitat

Stipulation:	Controlled Surface Use
Mapping Criteria:	Grizzly Bear Amendment for the Greater Yellowstone Ecosystem Occupied Habitat as mapped by Kim Barber (USFS, 2006). GIS layer s08_GrizzlyHabitat
Objective:	To ensure proposed activities do not adversely affect the viability of grizzly bears. Operations will be designed and/or located to not adversely affect grizzly bears. Coordination of timing and timing adjustments in activities within grizzly use areas may be necessary. Noise levels may also be limited.
Waiver:	A waiver may be granted if habitat studies, in coordination with Montana Fish, Wildlife, and Parks, conclude the area affected by this stipulation is no longer used as grizzly bear habitat.
Exception:	An exception may be granted if the operator demonstrates, in a plan of operations, that impacts from the proposed action are acceptable or can be adequately mitigated.
Modification:	A modification of the stipulation may be granted if new habitat studies show that a portion of the area is not used by grizzly bears.
Justification:	Surface activities within these areas could adversely impact grizzly bears. If operations were allowed to occur under Standard Lease Terms, the bears could be displaced. No Surface Occupancy and No Lease stipulations are overly restrictive since impacts can be avoided by using a Controlled Surface Use stipulation.

Westslope Cutthroat Trout in Fish Key Watersheds

Stipulation:	No Surface Occupancy
Mapping Criteria:	Fish Key Watersheds GIS layer s09_Alts_Wct
Objective:	To prevent negative effects to westslope cutthroat trout populations critical to species viability.
Waiver:	None
Exception:	None
Modification:	None
Justification:	Forest plan direction precludes multiple management activities from these watersheds to ensure viability requirements are met.

Westslope Cutthroat Trout Conservation Populations

Stipulation:	Controlled Surface Use
Mapping Criteria:	Watersheds with westslope cutthroat trout conservation populations outside of fish key watersheds GIS layer s09_Alts_Wct
Objective:	To minimize effects to westslope cutthroat trout populations important to meet conservation objectives, mitigation will be applied to: Ensure no net increase in sediment over existing condition. Off-site mitigation may be required within the occupied reach of stream. Centralize drilling or production pads to minimize road network. Require that any proposed linear feature, pipeline, road, utility, etc. crossing a conservation population stream, be mitigated by special engineering or underground construction measure. Limit number of stream crossings. Ensure operations will not affect stream water quality and quantity.
Waiver:	None
Exception:	If a population is determined extinct, and the State of Montana and Beaverhead-Deerlodge National Forest biologists determine the watershed is not critical for future restoration of westslope cutthroat trout, an exception may be granted.
Modification:	None
Justification:	Standard lease terms were determined inadequate to meet conservation objectives. Mitigation under Controlled Surface Use ensures water quality, quantity, and habitat, adequate to maintain conservation populations. No Surface Occupancy was determined unnecessary because viability requirements were met through the NSO for Fish Key Watersheds Stipulation and the CSU mitigation on conservation populations outside of fish key watersheds.

Arctic Grayling

Stipulation:	Controlled Surface Use
Mapping Criteria:	The Ruby River from the forest boundary to its headwaters near Divide Creek. On the east side of the river the CSU buffer will be ½ mile wide and ¼ on the west side. The east side requires a wider buffer because the slopes are less stable than those on the west side. National Forest System within the Trail Creek Hydrologic Drainage up to the confluence with May Creek. Tributaries to the Big Hole River where sediment introduction is affecting grayling habit: Lower Steel, Squaw, Sawlog, Shaw, Papoose, Toomey, Tucker, and Walker creeks. The main branch of Steel Creek will be buffered from the forest boundary, upstream for 2 miles to Moose Meadows. The buffer on the north side of the creek will be a ½ mile wide and 1 mile on the south side. This configuration follows the hydrologic boundaries of this portion of the drainage. On all other listed streams, CSU will apply to the National Forest System within their hydrologic drainages. GIS layer s10_Grayling
Objective:	To protect Arctic Grayling in the Big Hole and Ruby river drainages. To meet conservation objectives mitigation measures will apply to: Ensure no net increase in sediment over existing condition. Off-site mitigation may be required within the occupied reach of stream. Centralize drilling or production pads to minimize road network. Require any proposed linear feature, pipeline, road, utility, etc. across arctic grayling streams be mitigated by special engineering or underground construction measures to protect the stream. Limit the number of stream crossings Ensure operations will not affect stream water quality and quantity.
Waiver:	None
Exception:	If the Ruby River Population is determined extinct and the State of Montana and Beaverhead-Deerlodge National Forest biologists determine the stream reach is not critical for future restoration of arctic grayling, an exception may be granted.
Modification:	None
Justification:	Standard lease terms were determined inadequate to meet conservation objectives. Mitigation under Controlled Surface Use ensures water quality, quantity, and habitat adequate to maintain conservation.

Slopes over 60%

Stipulation:	No Surface Occupancy
Mapping Criteria:	Slopes over 60% GIS layer s11_Slopes60
Objective:	To minimize the potential for adverse effects to soil and water.
Waiver:	None
Exception:	An exception may be granted if the operator can demonstrate, in a surface use plan of operations that adverse effects can be minimized and activities safely conducted.
Modification:	A modification may be granted if an on-the-ground inspection of a proposed well site or facility shows that an area of less than 60% slope exists or that design of the site can mitigate erosion and reclamation concerns.

Justification: This stipulation is necessary to protect the basic soil and water resources. Soils disturbance of an area required for a well pad on steep slopes would be difficult to reclaim and could result in unacceptable soil loss through erosion, displacement, and compaction and could potentially increase the sediment load of streams. If operations within these areas were to be allowed under Standard Lease Terms, erosion and reclamation could result. The No Lease option is not considered appropriate since impacts can be mitigated using a Controlled Surface Use stipulation. No Lease could expose the federal mineral estate to revenue losses as a result of drainage from adjacent leased lands.

Areas of Mass Failure

Stipulation: No Surface Occupancy

Mapping Criteria: Areas where potential exists for mass failure
GIS layer s12_AreasMassFailure

Objective: To preclude construction of well sites and related facilities in areas where the potential for mass failure exists because these areas of high erosion and stability hazard are difficult to reclaim.

Waiver: None

Exception: An exception may be granted if the operator can demonstrate in a surface use plan of operation that adverse effects can be minimized and activities safely conducted.

Modification: A modification may be granted if an on-the-ground inspection of a proposed well site or facility determines a low risk of mass wasting or that site design can mitigate failure and reclamation concerns.

Justification: This stipulation is necessary to protect the basic soil and water resources. Soil disturbance of an area required for a well pad on mass wasting soils would be difficult to reclaim, could result in unacceptable soil loss through erosion, and potentially increase the sediment load of streams. If operations within these areas were to be allowed under Controlled Surface Use or Timing Limitation stipulations, or under Standard Lease Terms, erosion and reclamation of the area could be affected. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation. No Lease could expose the federal mineral estate to revenue losses as a result of drainage from adjacent leased lands.

Areas Prone to Failure with Slopes over 35%

Stipulation: No Surface Occupancy

Mapping Criteria: Current soil survey overlaid with slopes over 35%
GIS layer s13_ProneFailureGT35

Objective: To preclude construction of well sites and related facilities in areas which would be difficult to rehabilitate and to preclude surface disturbing activities on areas that have a high erosion/stability hazard rating

Waiver: None

Exception: An exception may be granted if the operator can demonstrate in a surface use plan of operations that adverse effects can be minimized and activities safely conducted.

Modification: A modification may be granted if an on-the-ground inspection of a proposed well site or facility shows an area of less than 35% slope exists and mass wasting - prone soils do not exist or that design of the site can mitigate erosion, failure, and reclamation concerns.

Justification: This stipulation is necessary to protect the basic soil and water resources. Soil disturbance of an area required for a well pad on steep slopes or mass wasting soils would be difficult to reclaim, could result in unacceptable soil loss through erosion, and could increase the sediment load of streams. If operations within these areas were to be allowed under Controlled Surface Use, Timing Limitations, or Standard Lease Terms, erosion, failure, and reclamation of the area could be affected. The No Lease stipulation is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation. No Lease could expose the federal mineral estate to revenue losses as a result of drainage from adjacent leased lands.

Areas Sensitive to Soil Compaction

Stipulation: Controlled Surface Use

Mapping Criteria: Areas where soil has a high compaction /displacement hazard.
GIS layer s14_SensitiveSoilCompaction

Objective: To protect areas where soil conditions are such that the site would be difficult to rehabilitate and have a high compaction/displacement hazard. Reclamation standards will include: control of species, planting rate and methods, seed bed preparation method, and quality and handling of available topsoil.

Waiver: None

Exception: An exception may be granted if the operator can demonstrate in a surface use plan of operations that adverse effects can be minimized and activities safely conducted.

Modification: A modification may be granted if an on-the-ground inspection of proposed well site or facility shows an area of sensitive soils does not exist or that site design can mitigate erosion, failure, and reclamation concerns.

Justification: This stipulation is necessary to protect the basic soil and water resources. Soil disturbance on sensitive soils in an area of the size required for a well pad would be difficult to reclaim and could result in unacceptable soil damage, compaction, and displacement, it could also increase the sediment load of streams. If operations within these areas were to be allowed under either a Timing Limitation stipulation or under Standard Lease Terms, sensitive soils could be affected and reclamation would be difficult.

Heritage Resource Sites and Traditional Cultural Properties

Stipulation: No Surface Occupancy

Mapping Criteria: Heritage resource sites larger than 40 acres
GIS layer s15_CulturalSites

Objective: To meet forest plan objectives to preserve in place significant heritage resources and to avoid disturbance to traditional cultural properties. Stipulations will be applied to ensure proposed activities do not adversely affect heritage resource sites larger than 40 acres. Heritage sites smaller than 40 acres will also be stipulated NSO but it is assumed operations will be designed and/or located to not adversely affect the heritage resource site.

Waiver: None

Exception: If the on-site inspection reveals archaeological or historic material that does not constitute a heritage site, or an archaeological site exists but is not significant, an exception may be granted. No exceptions will be given for traditional cultural properties.

Modification:	None
Justification:	To prevent the construction of well sites, support facilities and access roads on heritage sites eligible for inclusion in the National Register of Historic Places, or on sites whose significance has not been determined.

Grasshopper and Rock Creek Recreation Areas

Stipulation:	Controlled Surface Use
Mapping Criteria:	Management Area 28 and 30 from the 1986 Beaverhead Forest Plan. GIS layer s16_RecAreas
Objective:	To control surface occupancy and new surface disturbing activities in these recreation areas by requiring activities to be located and operations conducted in a manner that will minimize the effects on the characteristics of the area. Extensive reclamation will be required.
Waiver:	A waiver may be granted if these areas cease to be managed for their recreational values.
Exception:	Same as Waiver
Modification:	Same as Waiver
Justification;	A Controlled Surface Use stipulation is considered necessary to protect the recreation experience. By enforcing a CSU stipulation, noise, lights, and other disturbances to the visitors at the recreation area should be minimized. The No Surface Occupancy or No Lease stipulations are overly restrictive since operations within the area can be mitigated using a Controlled Surface Use stipulation.

Special Use Recreation Residences

Stipulation:	Controlled Surface Use
Mapping Criteria:	A quarter mile buffer around Special Use Recreation Residences GIS layer s17_RecreationResidences
Objective:	To control surface occupancy and new surface disturbing activities for special use recreation residences by requiring activities to be located and operations conducted in a manner that will minimize the effects on the characteristics of the area. Extensive reclamation will be required.
Waiver:	A waiver may be granted if the recreation residence is moved or eliminated.
Exception:	Same as waiver
Modification:	Same as waiver
Justification:	A Controlled Surface Use stipulation is considered necessary to protect the recreation experiences of the special use recreation residences permittees. By enforcing a CSU stipulation, noise, light, and other disturbances to visitors at the residence should be minimized. A No Surface Occupancy stipulation or No Lease are overly restrictive since operations within the area can be mitigated using a Controlled Surface Use stipulation and occupation of the sites is not year-round.

Developed Campgrounds and Administrative Sties

Stipulation:	No Surface Occupancy
Mapping Criteria:	Sites within one half mile of developed campgrounds, or administrative sites

	GIS layer s18_Campgrounds_AdminSites
Objective:	To preclude surface occupancy and surface disturbing activities.
Waiver:	A waiver may be granted for campgrounds or administrative sites if the site is moved or eliminated.
Exception:	An exception may be granted for campgrounds or administrative sites if the site is moved or eliminated.
Modification:	Same as waiver.
Justification:	Construction of site developments allocates those specific lands to a specific use. A No Surface Occupancy stipulation is deemed necessary to protect the capital investment. If operations were to be allowed within these areas under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, the capital investment and/or recreational setting could be affected. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation and not leasing could subject the federal mineral estate to drainage from adjacent lease lands.

National Scenic and Historic Trails

Stipulation:	No Surface Occupancy
Mapping Criteria:	One quarter mile corridor of the Continental Divide National Scenic Trail or half mile buffer along the Nez Perce and Lewis and Clark national historic trails. GIS layer s19_NationalTrails
Objective:	To preclude surface occupancy and surface disturbing activities
Waiver:	None
Exception:	An exception may be granted if a surface occupancy plan shows that the designated routes, recreation experiences along those routes, and historic resources are protected.
Modification:	Same as exception.
Justification:	These National Trails have been designated to protect historic resources and to provide recreation opportunities. If operations were to be allowed within these areas under either a Controlled Surface Use or Timing Limitations stipulation, or under Standard Lease Terms, the capital investment and/or recreational setting could be affected. The No Lease option is not considered appropriate since impacts can be mitigated using a No Surface Occupancy stipulation and not leasing could subject the federal mineral estate to drainage from adjacent lease lands.

Specific Semi-Primitive Recreation Areas

Stipulation:	Controlled Surface Use
Mapping Criteria:	GIS layer s04_Alts_PrimitiveSemiprimitive (1986 Beaverhead National Forest Plan MA 8 and the current West Big Hole Management Area.)
Objective:	To maintain semi-primitive values of the area through use of extensive reclamation requirements. The stipulation will also require activities to be located and operations conducted in a manner that will minimize the effects on the area characteristics.
Waiver:	A waiver may be granted if the area is no longer managed for semi-primitive values.
Exception:	None

Modification:	This stipulation may be modified if it is determined portions of the lease are no longer managed for semi-primitive recreation opportunities.
Justification:	These areas have been recognized for their high value as primitive and semi-primitive areas. Application of a Controlled Surface Use stipulation protects the surface resources and does not preclude development of potential oil and gas resources. If operations were allowed under Standard Lease Terms, the roadless character and recreational value of the area could be impacted. A No Lease stipulation is not necessary since the application of a Controlled Surface Use stipulation protects the resource concern and provides some opportunity to explore for oil and gas. Oil and gas exploration activities can be located or mitigated so the integrity of the area will not be affected.

Areas of High Scenic Value

Stipulation:	No Surface Occupancy
Mapping Criteria:	Forest plan management areas with a high scenic objective and one half mile buffer on Concern Level One routes and sites. GIS layer s20_SenicValue
Objective:	To provide high scenic integrity
Waiver:	None
Exception:	An exception may be granted if the operator can demonstrate in a surface use plan of operations that the objectives for scenery can be met.
Modification:	None
Justification:	Areas are designated as high value because of natural beauty in proximity to travel routes or sites where users expect and desire a natural appearance. Therefore, a No Surface Occupancy stipulation is deemed necessary to notify potential lessees of the resource concern and restrictions.

Areas of Moderate Scenic Value

Stipulation:	Controlled Surface Use
Mapping Criteria:	All areas that do not meet the criteria for high scenic value and are outside of the Tie-Johnson and Bryant Creek Mass. GIS layer s20_ScenicValue
Objective:	To ensure the scenic integrity of the area is maintained, proposed activities would be required to be located or designed to meet a minimum moderate scenic integrity level.
Waiver:	None
Exception:	An exception may be granted if the operator can demonstrate in a surface use plan of operations that the objectives for scenery can be met.
Modification:	If the area is determined to be not visible from those sensitive routes and sites listed above mitigation for scenery may not be needed.
Justification:	Application of the Controlled Surface Use stipulation identifies the standard an operator must meet and provides the opportunity to conduct activities as long as the standard is met. The No Lease or No Surface Occupancy stipulations are deemed overly restrictive because visual impacts to the scenic integrity level can often be mitigated by vegetative or topographic screening Under the Standard Lease Terms some impacts could be mitigated but operations could not be denied if the moderate scenic integrity level could not be mitigated.

Lease Notice Background

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 either in a law, regulation, standard lease term, or an 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:

The resource/use/value,

The lands affected, if applicable,

The reason(s),

The effect on lease operations or what may be required, and

A reference to the lease term, regulation, law, or the order from which enforcement authority is derived.

If a situation or condition is known to exist that could affect 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 officer whether a situation is sufficiently sensitive to warrant the use of a lease stipulation.

BEAVERHEAD NATIONAL FOREST LEASE NOTICES

The following language provides example language for lease notices. Since lease notices transmit information about laws, regulations, or orders, the language in the lease notices may change if the underlying law, regulation, or order changes.

NOTICE FOR LANDS OF THE NATIONAL FOREST SYSTEM UNDER JURISDICTIONOF DEPARTMENT OF AGRICULTURE

The permittee/lessee must comply with all the rules and regulations of the Secretary of Agriculture set forth at Title 36, Chapter II, of the Code of Federal Regulations governing the use and management of the National Forest System (NFS) when not inconsistent with the rights granted by the Secretary of Interior in the permit. The Secretary of Agriculture's rules and regulations must be complied with for (1) all use and occupancy of the NFS prior to approval of an exploration plan by the Secretary of the Interior, (2) uses of all existing improvements, such as forest development roads, within and outside the area permitted by the Secretary of the Interior, and (3) use and occupancy of the NFS not authorized by an exploration plan approved by the Secretary of the Interior.

All matters related to this stipulation are to be addressed to:

Forest Supervisor or District Ranger

who is the authorized representative of the Secretary of Agriculture.

CULTURAL RESOURCES - The FS is responsible for assuring that the leased lands are examined to determine if cultural resources are present and to specify mitigation measures, in accordance with the Archaeological Resources Protection Act of 1979, the National Historic Preservation Act of 1966 (as amended), and the American Indian Religious Freedom Act of 1996. Prior to undertaking any surface-disturbing activities on the lands covered by this lease, the lessee or operator, unless notified to the contrary by the FS, shall:

1. Contact the FS to determine if a site specific cultural resource inventory is required. If a survey is required, then:

2. Engage the services of a cultural resource specialist acceptable to the FS to conduct a cultural resource inventory of the area of proposed surface disturbance. The operator may elect to inventory an area larger than the area of proposed disturbance to cover possible site relocation which may result from environmental or other considerations. An acceptable inventory report is to be submitted to the FS for review and approval at the time a surface disturbing plan of operation is submitted.

3. Implement mitigation measures required by the FS and BLM to preserve or avoid destruction of cultural resource values. Mitigation may include relocation of proposed facilities, testing, salvage, and recordation or other protective measures. All costs of the inventory and mitigation will be borne by the lessee or operator, and all data and materials salvaged will remain under the jurisdiction of the U.S. Government as appropriate.

The lessee or operator shall immediately bring to the attention of the FS and BLM any cultural or resources or any other objects of scientific interest discovered as a result of surface operations under this lease, and shall leave such discoveries intact until directed to proceed by FS and BLM.

Vertebrate Paleontology Notice - The FS is responsible for assuring that the leased lands are examined to determine if paleontologic resources are present and to specify mitigation measures, in accordance with Organic Act, and the National Forest Management Act of 1976

Prior to undertaking any surface-disturbing activities on the lands covered by this lease, the lessee or operator, unless notified to the contrary by the Forest Service, shall:

1. Contact the Forest Service to determine if a site-specific vertebrate paleontologic inventory is required. The Forest Service will conduct inventories and surveys as part of the field review for the proposed activity on the lease. The operator may voluntarily engage the services of a qualified paleontologist to conduct the inventory.
2. Implement mitigation measures required by the Forest Service and Bureau of land management to preserve or avoid destruction of vertebrate paleontologic resources. Mitigation may include relocation of proposed facilities or other protective measures.
3. The lessee or operator shall immediately bring to the attention of the Forest Service any vertebrate paleontological resources discovered as a result of surface operation under this lease, and shall leave such discoveries intact until directed to proceed by the Forest Service.

FLOODPLAIN AND WETLANDS - The lessee is hereby notified that this lease may contain land within a riparian ecosystem. All activities within this area may be highly restricted in order to comply with Executive Order 11988 - *Floodplain Management* and Executive Order 11990 - *Protection of Wetlands*, in order to preserve and restore or enhance the natural and beneficial values served by floodplains and wetlands.

Riparian ecosystems will be managed by the Forest Service to protect from conflicting uses in order to provide healthy, self-perpetuating plant and water communities that will have optimum diversity and density of understory and overstory vegetation. Occupancy and use of lands within riparian ecosystems proposed in a proposed Surface Use Plan of Operations will be considered in an environmental analysis done to identify the mitigation measures necessary to protect the riparian area. Special

measures such as road design, well pad size and location or directional drilling, may be made part of the permit authorizing the activity.

THREATENED, ENDANGERED, AND SENSITIVE PLANT OR ANIMAL SPECIES LEASE NOTICE

The lease area may contain threatened and endangered species or habitat necessary for the continued existence of threatened, proposed, candidate or endangered species which are protected by the 1973 Endangered Species Act, as amended (16 USC 1531 et seq.) and implementing regulations (50 CFR 402 et seq.). The lease area may also contain habitat or species, which may require protective measures to prevent them from being listed as threatened or endangered; or result in a loss of viability or biological diversity

(36 CFR 219.19 or 219.26). A biological evaluation of the leased lands may be required prior to surface disturbance to determine if endangered, threatened, proposed, candidate or sensitive plant or animal species or their habitat are present and to identify needed mitigation measures. Prior to under taking any surface-disturbing activities on the lands covered by this lease, the lessee or operator shall:

1. Contact the Forest Service to determine if a biological evaluation is required. The Forest Service is responsible for ensuring that the leased land is examined through a biological evaluation, prior to undertaking any surface-disturbing activities, to determine effects upon any plant or animal species listed or proposed for listing as threatened, endangered, or a sensitive species.

2. The lessee or operator may choose to conduct the evaluation on the leased lands at their discretion and cost. This biological evaluation must be done by or under the supervision of a qualified biologist/botanist approved by the Forest Service. An acceptable report must be provided to the Forest Service identifying the anticipated effects of a proposed action on endangered, threatened, proposed, candidate or sensitive species. An acceptable biological evaluation is to be submitted to the Forest Service for review and approval no later than that time when an otherwise complete application for permit to drill or subsequent surface-disturbing operation is submitted.

3. Implement mitigation measures required by the Forest Service. Mitigation may include the relocation of proposed lease-related activities or other protective measures. The findings of the biological evaluation, analysis and consultation may result in restrictions to the operator's plans or even disallow use and occupancy to comply with the 1973 Endangered Species Act (as amended), threatened and endangered species regulations and Forest Service statutes and regulations.

If endangered, threatened, proposed, candidate or sensitive plant or animal species are discovered in the area after any required biological evaluation has concluded; an evaluation will be conducted to assess the effect of ongoing and proposed activities. Based on the conclusion drawn in the evaluation, additional restrictions or prohibitions may be imposed to protect the species or their habitats.

APPENDIX C - PROJECTED OUTPUTS AND BUDGET

	Average Annual Estimated Goods and Services*					
Outputs	Current Level	Decade 1	Decade 2	Decade 3	Decade 4	Decade 5
Sawtimber Volume (CCF)	28,000	28,000	28,360	28,670	28,690	29,890
Sawtimber Volume (MMBF)	14	14	14.2	14.3	14.4	14.9
Fuelwood/post and poles (CCF)	5,000	5,000	5,000	5,000	5,000	5,000
Cattle, Horse, Bison Grazing (AUMs)	163,700	163,700	163,700	163,700	163,700	163,700
Sheep Grazing (AUMs)	7,400	7,400	7,400	7.400	7,400	7,400
General Recreation Visits	432,217	432,217	475,439	522,982	575,280	632,808
Hunting, Fishing, Wildlife Viewing Visits	389,464	389,464	428,410	471,251	518,376	570,214
Summer Motorized Recreation Visits	80,339	80,339	88,372	97,211	106,931	117,624
Snowmobile Visits	10,434	10,434	11,477	12,625	13,888	15,276
Crude Oil (barrels from 4 wells)**	0	12,704	17,236	17,862	18,014	18,043
Natural Gas (MCF from 4 wells)**	0	503,000	901,000	1,007,000	1,036,000	1,042,000
Forest Service Budget Expenditures (M$)	19,385	19,385	19,188	19,088	18,888	18,988

*Assumptions are documented in the Project File “FEIS PNV Assumptions” where recreation visits are organized by categories described in the Resources Planning Act (RPA)

*based on reasonably foreseeable development scenario

APPENDIX D - SCHEDULE OF TIMBER SALES AND RELATED ACTIVITIES

The following schedule is displays the proposed timber sales to be offered to the public during the next three years (to meet the requirements of CFR 219.16) along with the schedule of watershed restoration and other activities incorporated into or funded by the stewardship portion of those sales. The timber sale program is one aspect of the Northern Region Integrated Restoration Strategy designed to comply with the National Fire Plan and emphasizing stewardship contracting to achieve multiple forest objectives. This is the BDNF contribution to the Regional 3-year schedule and subject to revision upon approval by the Forest Supervisor. Each year the Forest reviews the Integrated Restoration Strategy, makes necessary adjustments, and adds another year's activities to the schedule. Abbreviations used in the tables are as follows:

DIST = District	D3 = Wise River Ranger District
D4 = Butte Ranger District	D6 = Madison Ranger District
D6 = Jefferson Ranger District	D8 = Pintlar Ranger District
HUC = hydrologic unit code (Montana NRIS 2003 Version Watersheds)	CCF = hundred cubic feet
STWD = stewardship contract	WUI = wildland urban interface

PROJECT NAME	DIST	6TH CODE HUC (NRIS 2003)	ACTIVITY	OUT-PUT	UNIT	STWD
2008						
Lime Kiln	D4	170102010202	Timber Sale, Salvage	7000	CCF	YES
		170102010202	Fuel Reduction, WUI	350	Acres	YES
		170102010202	Road Maintenance	.5	Miles	YES
		170102010202	Road Maintenance-STWD	3	Miles	YES
		170102010202	Noxious Weed Trtmt- STWD	350	Acres	YES
		170102010202	Habitat Enhancement	200	Acres	YES
		170102010202	Stream Enhancement	1	Mile	YES
		100200050102	Habitat Enhancement-STWD	1000	Acres	YES
		170102010202	Stream Enhancement-STWD	2	Miles	YES
		170102010202	Soil & Water Improvement	20	Acres	YES
		170102010202	Soil & Water Improvement-STWD	180	Acres	YES
Homestake Pass	D4	170102010202	Timber Sale, Salvage	6000	CCF	YES
		170102010202	Fuel Reduction, WUI	600	Acres	YES
		170102010202	Road Decommission	2	Miles	YES
		170102010202	Noxious Weed Trtmt-STWD	600	Acres	YES

PROJECT NAME	DIST	6TH CODE HUC (NRIS 2003)	ACTIVITY	OUT-PUT	UNIT	STWD
		100200050102	Habitat Enhancement-STWD	2000	Acres	YES
		100200050202	Stream Enhancement	1	Mile	YES
		100200050202	Stream Enhancement-STWD	15	Miles	YES
		100200050202	Trail Restoration	3	Miles	YES
		100200050202	Soil & Water Imprv STWD	105	Acres	YES
		100200050202	Travel Management STWD	270,000	Acres	YES
		100200050202	Trail Decommission STWD	8.5	Miles	YES
North Butte	D4	170102010202	Timber Sold, Salvage	10000	CCF	YES
		170102010202	Fuels Reduction, WUI	600	Acres	YES
		170102010202	Road Decommission	2	Miles	YES
		170102010202	Road Maintenance-STWD	12	Miles	YES
		170102010202	Abandoned Mine Rec STWD	5	Sites	YES
		170102010202	Noxious Weed Trtmt-STWD	1500	Acres	YES
		170102010202	Habitat Enhancement	300	Acres	YES
		170102010202	Habitat Enhancement-STWD	1500	Mile	YES
		170102010202	Stream Enhancement	2	Miles	YES
		170102010202	Stream Enhancement-STWD	5	Miles	YES
		170102010202	Fuel Reduction Other-STWD	9400	Acres	YES
Thompson Park	D4	170102010202	Timber Sold, Salvage	10000	CCF	YES
		170102010202	Fuels Reduction, WUI	500	Acres	YES
		170102010202	Road Maintenance	.5	Miles	YES
		170102010202	Road Maintenance -STWD	2	Miles	YES
		170102010202	Habitat Enhancement	200	Acres	YES
		170102010202	Habitat Enhancement-STWD	1000	Acres	YES
		170102010202	Stream Enhancement	1	Mile	YES
		170102010202	Stream Enhancement-STWD	8	Miles	YES
		170102010202	Noxious Weed Trtmnt-STWD	500	Acres	YES
		170102010202	Recreation Site Imprv -STWD	150	Acres	YES
		170102010202	Soil & Water Imprv-STWD	150	Acres	YES
		170102010202	Soil and Water Imprv.	10	Acres	YES
East Deerlodge	D8	170102010506	Timber Sold, Salvage	20000	CCF	YES
		170102010506	Habitat Enhancement	650	Acres	YES
		170102010506	Habitat Enhancement-STWD	2000	Acres	YES
		170102010506	Stream Enhancement	1	Mile	YES
		170102010506	Stream Enhancement-STWD	5	Miles	YES
		170102010506	Road Improvement	1.5	Miles	YES

PROJECT NAME	DIST	6TH CODE HUC (NRIS 2003)	ACTIVITY	OUT-PUT	UNIT	STWD
		170102010506	Road Improvement –STWD	10	Miles	YES
		170102010506	Soil & Water Improvement	10	Acres	YES
		170102010506	Soil & Water Imprv.-STWD	30	Acres	YES
		170102010506	Noxious Weed Trtmt	200	Acres	YES
		170102010506	Noxious Weed Trtmt -STWD	500	Acres	YES
		170102010506	Boundary line marked	5	Miles	YES
		170102021003	Noxious Weed Trtmt -STWD	2500	Acres	YES
		170102021003	Habitat Enhancement-STWD	2400	Acres	YES
		170102021003	Soil & Water Improvement	50	Acres	YES
		170102021003	Soil & Water Imprv.-STWD	150	Acres	YES
		170102021003	Stream Enhancement	2	Miles	YES
		170102021003	Stream Enhancement-STWD	8	Miles	YES
		170102021003	Road Decommission	1	Miles	YES
		170102021003	Road Decommission-STWD	4	Miles	YES
		170102010506	Fuel Reduction, WUI	200	Acres	YES
Battle Mountain	D2	100200040402	Timber Sold, Salvage	3000	CCF	NO
		100200040402	Fuels Reduction, WUI	400	Acres	NO
		100200040402	Noxious Weed Trtmt	400	Acres	NO
		100200040402	Stream Enhancement	2	Miles	NO
Roadside Salvage #2	D4 D7	170102010202	Timber sold, Salvage	6000	CCF	NO
		170102010202	Noxious Weed Trtmt	300	Acres	NO
Elk Park Sawmill	D4D7	100200060201	Timber Sold, Salvage	6200	CCF	YES
		100200060201	Fuels Reduction, WUI	150	Acres	YES
		100200060201	Noxious Weed Treatment	300	Acres	NO
		100200060105	Habitat Enhancement	400	Acres	YES
		100200060105	Habitat Enhancement-STWD	1000	Acre	YES
		100200060201	Stream Enhancement	.5	Miles	YES
		100200060201	Stream Enhancement-STWD	1.5	Miles	YES
		100200060201	Road Improvement	.5	Miles	YES
		100200060201	Soil & Water Imprv	5	Acres	YES
		100200060201	Soil & Water Imprv-STWD	15	Acres	YES
Rat Creek Fire	D2	100200040402	Timber Sold, Salvage	20000	CCF	NO
		100200040402	Noxious Weed Trtmt	400	Acres	NO
Z Bar Tee	D7	100200050205	Timber Sold, Salvage	1500	CCF	NO
			Fuels Reduction, WUI	28	Acres	NO

PROJECT NAME	DIST	6TH CODE HUC (NRIS 2003)	ACTIVITY	OUT-PUT	UNIT	STWD
2009						
Birch Willow	D1	100200041403	Timber Sold, Salvage	6000	CCF	YES
		100200041403	Fuels Reduction, WUI	200	Acres	YES
		100200041403	Habitat Enhancement	200	Acres	YES
		100200041403	Habitat Enhancement-STWD	1000	Acres	YES
		100200041403	Stream Enhancement	.5	Miles	YES
		100200041403	Stream Enhancement-STWD	3.5	Miles	YES
		100200041403	Road Improvement	3	Miles	YES
		100200041403	Road Improvement –STWD	9	Miles	YES
		100200041403	Trail Maintenance	25	Miles	YES
		100200041403	Trail Maintenance –STWD	25	Miles	YES
		100200041403	Abandoned Mine Reclamation	7	Sites	YES
		100200041403	Soil & Water Imprv	15	Acres	YES
		100200041403	Soil & Water Imprv –STWD	45	Acres	YES
Powerline Salvage #1	D4D7	100200060401	Timber Sold, Salvage	6000	CCF	NO
		100200060401	Fuels Reduction, WUI	300	Acres	NO
		100200060401	Road Maintenance	2.5	Miles	NO
Roadside Salvage #3	D4	170102010506	Timber Sold, Salvage	6000	CCF	NO
			Noxious Weed Treatment	200	Acres	NO
Bear Creek	D7	100200071301	Winter Range Restoration	3000	Acres	NO
2010						
Moulton Reservoir	D4	170102010403	Timber Sold, Salvage	3000	Acres	NO
		170102010403	Fuels Reduction, WUI	150	Acres	NO
		170102010403	Stream Enhancement	1	Miles	NO
		170102010403	Noxious Weed Trtmt	150	Acres	NO
		170102010403	Trail Replacement	5	Miles	NO
		170102010403	Road Improvement	.5	Miles	NO
		170102010403	Road Maintenance	1	Mile	NO
South Fk Divide	D4	100200041101	Timber Sold, Salvage	6000	CCF	YES
		100200041101	Fuels Reduction, WUI	300	Acres	YES
		170102010205	Habitat Enhancement	250	Acres	YES
		170102010205	Habitat Enhancement-STWD	1000	Acres	YES
		100200041101	Stream Enhancement	.5	Miles	YES
		100200041101	Stream Enhancement-STWD	1	Miles	YES

PROJECT NAME	DIST	6TH CODE HUC (NRIS 2003)	ACTIVITY	OUT-PUT	UNIT	STWD
		100200041101	Noxious Weed Trtmt -STWD	300	Acres	YES
		100200041101	Soil & Water Imprv –STWD	35	Acres	YES
		100200041101	Soil & Water Imprv	10	Acres	YES
Timber Creek	D6	100200030108	Timber Sold	2000	CCF	NO
		100200030108	Fuels Reduction, WUI	300	Acres	NO
		100200030108	Road Maintenance, Hi Clear.	5	Miles	NO
		100200030108	Habitat Enhancement	400	Acres	NO
		100200030108	Noxious Weed Trtmt	400	Acres	NO
Lockhart Meadow	D7	100200060104	Timber Sold, Salvage	11000	CCF	YES
		100200060104	Fuels Reduction, WUI	600	Acres	YES
		100200060103	Habitat Enhancement	200	Acres	YES
		100200060103	Habitat Enhancement-STWD	1000	Acres	YES
		100200060104	Stream Enhancement	1	Mile	YES
		100200060104	Stream Enhancement-STWD	3	Miles	YES
		100200060104	Noxious Weed Trtmt -STWD	600	Acres	YES
		100200060104	Road Maintenance	1	Mile	YES
		100200060104	Road Maintenance -STWD	7	Miles	YES
		100200060104	Soil & Water Imprv	5	Acres	YES
Johnson Creek	D3	100200040902	Timber Sold, Salvage	4000	CCF	YES
		100200040902	Fuels Reduction, Other	200	Acres	YES
		100200041201	Habitat Enhancement	250	Acres	YES
		100200044201	Habitat Enhancement-STWD	1000	Acres	YES
		100200040902	Stream Enhancement	1	Mile	YES
		100200040902	Stream Enhancement-STWD	3	Miles	YES
		100200040902	Noxious Weed Trtmt	200	Acres	YES
		100200040902	Road Maintenance	.5	Miles	YES
		100200040902	Road Maintenance -STWD	3	Miles	YES
		100200041201	Soil & Water Imprv –STWD	15	Acres	YES
		1002000412012	Soil & Water Imprv	5	Acres	YES
Powerline Salvage #2	D4	100200060302	Timber Sold, Salvage	6000	CCF	NO
		100200060302	Fuels Reduction, WUI	300	Acres	NO
		100200060302	Noxious Weed Trtmt	300	Acres	NO
		100200060302	Road Maintenance	2	Miles	NO
Rader Creek	D7	100200050204	Timber Sold, Salvage	4000	CCF	NO

PROJECT NAME	DIST	6TH CODE HUC (NRIS 2003)	ACTIVITY	OUT-PUT	UNIT	STWD
		100200050204	Road Improvement	2	Miles	NO
		100200050204	Habitat Impv	200	Acres	NO
		100200050204	Noxious Weed Trtmt	300	Acres	NO
		100200050205	Timber Sold, Salvage	4000	CCF	NO
		100200050205	Noxious Weed Trtmt	300	Acres	NO
		100200050205	Fuel Reduction, WUI	600	Acres	NO

APPENDIX E - VEGETATION MANAGEMENT PRACTICES

Vegetation management practices available for the primary coniferous forest types on the forest are described below, as required in CFR 219.15. The conditions and circumstances for selecting a practice are outlined. Planting and timber stand improvement practices are only applicable to suitable timber lands where timber production is the purpose for the activity.

These practices are general guidelines. The final decision for the vegetative management practice (silvicultural system) chosen for each vegetative type and circumstance shall be made by a certified silviculturist using guidance in this Appendix, a review of applicable technical and scientific literature, and practical experience. Using this knowledge, the silviculturist will evaluate the practice for relevance to the specific vegetation and site condition. Additional practices may be dictated by other resource goals, particularly in riparian areas.

Harvest Systems

Managed forest lands include five general vegetative types. Each vegetative type provides several options for harvest systems depending on site conditions, phonological characteristics of individual species and management goals. Appropriate harvest systems for each type are as follows:

Lodgepole Pine

These sites generally occur on alpine fir or Douglas-fir climax habitats. Sites are generally dominated by pure or nearly pure lodgepole pine stands.

Clearcut – Where timber production is the primary goal for the area, and lodgepole pine is the desired management species, clearcutting may be used. Lodgepole pine is very shade tolerant and produces maximum seed germination and growth in full sunlight conditions.

Shelterwood – This harvest method may be used where conversion to more shade tolerant species such as Spruce or Douglas-fir is desirable, and where shelter is necessary to protect regeneration. Lodgepole pine will generally not be retained as shelter trees due to its; high susceptibility for windthrow.

Seedtree – Harvest may occur on sites where conversion to more tolerant species is desireable. In these cases residual seed trees will generally be spruce or Douglas-fir. Lodgepole pine may be retained as seed trees on sites where cone serotony is poor and sufficient seed is not present in the logging slash to adequately regenerate the site following harvest. Due to the high susceptibility of lodgepole pine seedtrees to windthrow, this method should be used where the risk is low. Lodgepole pine containing seed bearing cones may be retained as seed trees on stands wehre broadcast burning is used to dispose of slash. This method may be used as a one-shot attempt to establish

natural regeneration as seedtrees will normally be killed by the fire. These sites should be scheduled for planting if first year regeneration surveys do not show adequate stocking.

Selection/Group Selection/Commercial Thinning – Lodgepole pine types are generally not well suited for unevenaged silvicultural systems where lodgepole pine is the desired species of regeneration. Hormonal response to shaded sunlight prevents germination of lodgepole pine seed and restricts root growth in existing trees in shaded or partially shaded conditions. These methods may be used where other resource goals dictate continuous site occupancy with trees and where conversion to more tolerant species is desirable or acceptable.

Douglas-fir

These stands generally occur on Douglas-fir climax habitats and are characterized by species compositions ranging from a mixture of Douglas-fir and lodgepole pine to pure Douglas-fir.

Clearcut – This harvest method may be used on sites where existing stands do not contain sufficient suitable seed or shelter trees. This may occur due to disease, infestation with insects or genetic undesirability of available trees. Sites harvested using this method will generally be scheduled for planting.

Shelterwood – This harvest method will generally be used on sites where the retention of shelter trees is necessary to protect regeneration from excessive drying of the site or where continuous site occupancy with trees is necessary to protect other resource values. Where timber production is the primary goal of the area, the shelter trees will generally be removed after the regeneration is well established (10 to 20 years). Douglas-fir is considered a moderately shade intolerant species and produces greater growth under full sunlight conditions. On sites where the shelter trees are retained to protect other resource values, shelter trees may be retained on the site for a longer period of time, or not removed at all.

Seedtree – This harvest method will be used on sites where the retention of shelter trees is not necessary to protect regeneration or other resource values. The retention of seedtrees provides seed for natural regeneration while retaining near full sunlight conditions to maximize growth. Seed trees will generally be removed from the site after sufficient desirable regeneration is established.

Selection/Group Selection/Commercial Thinning – On very dry or harsh sites where regeneration of the site is difficult and stockability is low, selection harvest may be the most appropriate method of assuring continued regeneration of the site. These systems may also be used where other resource goals dictate continuous site occupancy with trees, and where full stocking of stands is not required.

Spruce/Sub-alpine fir/Whitebark pine

These stands generally occur on relatively high elevation sub-slpine fir climax habitat types and are characterized by a species mixture of sub-alpine fir, spruce, and whitebark pine. These sites often are not suited for regulated timber management due to harsh site conditions but may be managed where adequate site protection and regeneration can be assured or to meet other resource goals.

Clearcut, Shelterwood, Seed tree – Even aged harvest may be used to manage these sites where individual site and stand conditions allow and successful regeneration is likely to occur.

Selection/Group Selection/Commercial Thinning – On harsh sites where regeneration of the site is difficult and stockability is low, selection harvest may be the most appropriate method of assuring continued regeneration of the site. These systems may also be used where other resource goals dictate continuous site occupancy with trees, and where full stocking of stands is not required.

Riparian

These areas occur along streams and wet meadows. Existing stand conditions are highly variable, ranging from even-aged lodgepole stands to all-aged, multi-storied, mixed species stands. Harvest treatments will be designed to maintain natural conditions, protect riparian values, and to provide recruitment of trees to streams for pool development where appropriate.

Selection/Group Selection – These harvest methods will be used in riparian areas to manage the timber resource while protecting other resource values. Selection harvest may be used where the desired management species is shade tolerant and regeneration of that species is likely to occur. On sites where the desired management species is shade intolerant, such as lodgepole pine, group selection will generally be used to create conditions favorable for regeneration and growth. Group selection units will generally not exceed five acres in size.

Clearcut, Shelterwood, Seedtree – Even-aged systems will normally not be utilized in riparian areas. Exceptions may occur where other resource goals dictate removing the trees and riparian values can be adequately protected.

Quaking Aspen

These stands occur in riparian zones, in open sagebrush grasslands and intermingled with conifer stands. Quaking aspen regenerates primarily from root sprouts (suckers). Aggregations of raments (above ground stems) result from surviving root sprouts. Root sprouts are usually stimulated when above ground ramets are suppressed or removed thus removing apical dominance by auxins produced in the crowns from inhibiting the underground stem from sprouting. Heat of fires also stimulates root sprouting. Successful aspen ramets are intolerant of shade.

Clearcut - Where an aspen stand has declined due to insect or disease, even aged regeneration may be attempted by clearcutting.

Selection -Where the above ground ramets are generally free of pathogens and in sound physiological condition but are undergoing encroachment by various coniferous species subjecting the clone to competition for light, nutrients and moisture removal of the competitive stress by girdling encroaching conifers, falling and leaving encroaching conifers, or falling and removal when damage to the residual aspen ramets can be minimized are appropriate practices. Removal of conifers from a perimeter surrounding an existing aspen clone often allows the clone to expand into the space. Thus removal of

conifers surrounding an aspen clone by clearcutting is an acceptable practice for aspen regeneration.

Other - Where browsing pressure is identified as inhibiting the development of aspen ramets producing an ungulate barrier may be desirable. Prescribed burning to stimulate root suckering and reduce pathogens is an acceptable practice.

Site Preparation/Slash Disposal

Site preparation/slash disposal will be scheduled for harvested units where logging slash creates an untenable fire hazard and/or where site conditions inhibit reforestation efforts. Methods of site preparation/slash disposal include the following:

Tractor Piling – will generally be scheduled following harvest on sites where slopes are less than 45% and soils are not sensitive to erosion or compaction.

Hand Piling – will generally be scheduled on harvested units containing sensitive soils or hwere small unit size makes hand piling more cost efficient than other methods.

Trampling – may be used on sites where logging slash will not create an undue fire hazard and trampling will accomplish adequate site preparation to allow the prescribed type of regeneration.

Broadcast Burning – may be used on sites where other methods are not feasible due to slopes exceeding 45% or on sensitive soils where mechanical methods would crate undue soil disturbance or compaction.

YUM Yarding – Yarding of unmerchantable material may be appropriate where whole tree yearding is planned or where other methods will cause undue soil disturbance.

Jackpot Burning – may be used where fuels are scattered and site preparation is adequate to provide for regeneration.

Herbicide Treatment – may be used where competing vegetation precludes regeneration and mechanical methods of removing the competing vegetation are infeasible or cost prohibitive. Herbicides will be applied under an approved environmental analysis and disclosure document like the BDNF 2002 Noxious Weed Management Plan FEIS and Record of Decision.

Reforestation

Natural Regeneration – will be the primary system of reforestation on the forest

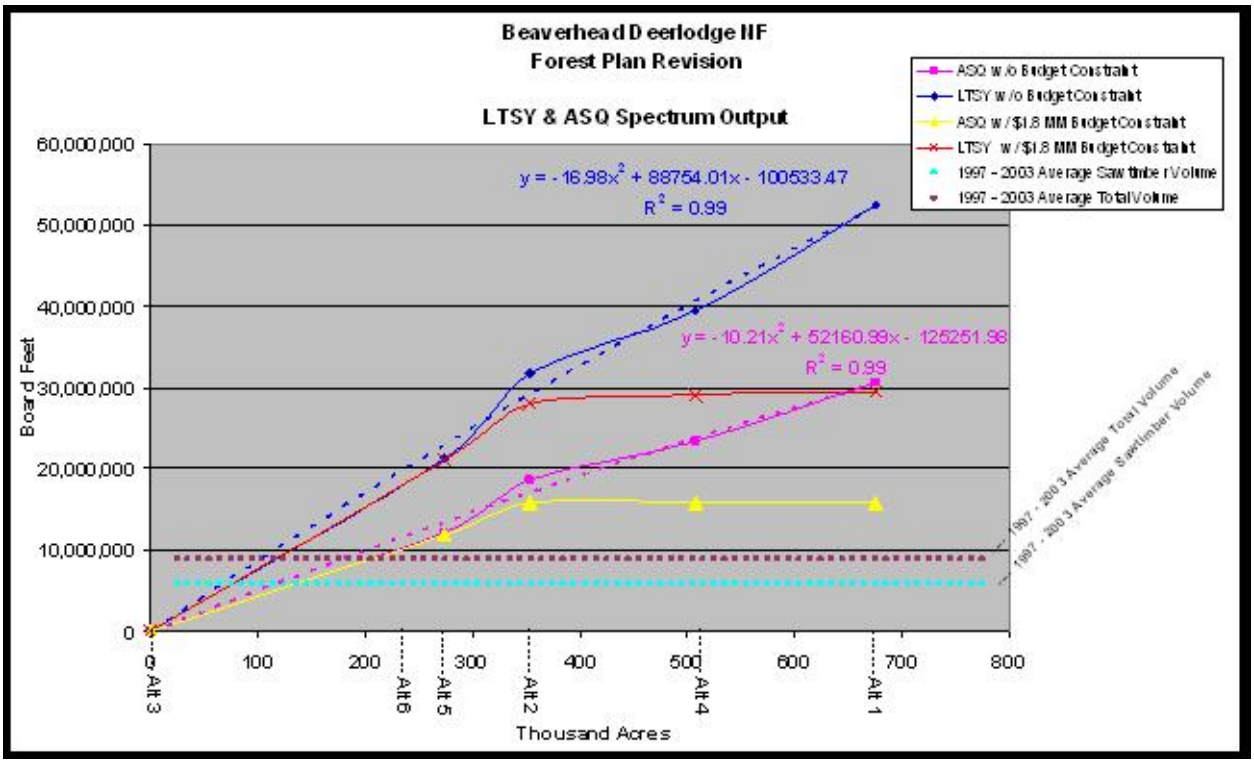
Planting – will generally only be scheduled on forested sites where natural regeneration is desired but unlikely to occur within five years of final harvest. Site conditions which generally indicate the need for planting include but are not limited to the following:

1. Following clearcut harvest on Douglas-fir sites where Douglas-fir is the desired regenerated species.

2. Following clearcut harvest on Lodgepole pine sites where cone serotony is poor or sites must be broadcast burned to dispose of logging slash due to steep slopes.
3. Following shelterwood harvest where natural regeneration is not expected within five years due to harsh site conditions.
4. Where third year regeneration surveys indicate that natural regeneration will not result in adequate stocking within five years of final harvest..

Timber Stand Improvement

Precommercial thinning, cleaning, release and weeding may be used on seedling/sapling sized stands allocated as suitable timber lands. Treatments will be designed to reduce overstocking to increase growth, remove diseased, damaged, or genetically inferior trees or to control species composition. Treatment will be scheduled prior to growth loss due to stagnation but after the possibility of significant ingrowth has past, generally between twenty and thirty years of stand age. Residual stocking levels, species preference and timing of treatment will be specific in the silvicultural prescription.

APPENDIX F - TIMBER HARVEST CAPACITY PROJECTIONS

SPECTRUM software was used as a timber harvest scheduling tool, reporting long term sustained yield (LTSY) and allowable sale quantity (ASQ) for alternatives 1-5 as well as the benchmark calculations (Chapter 2). Based on 2004 SPECTRUM runs, the maximum timber benchmark has an allowable sale quantity (ASQ) of 766 MMBF in decade 1 (76.6 MMBF/year), with harvest occurring on 82,693 acres. LTSY and ASQ, constrained by estimated budget projections, were calculated for Alternative 6 based on the following graphed data and calculations