Appendix C

Biological Evaluations for Special Status Fish and Wildlife Species and Special Status Plants

Biological Evaluation for
Special Status Plants on BLM Lands in the Madison Watershed
(Madison Watershed Environmental Assessment)
DOI-BLM-MT-B050-2009-0060-EA

Prepared by
Brian Thrift, Rangeland Management Specialist
June 2010

None of the plants currently listed as endangered or threatened under the Endangered Species Act are known from BLM lands in the Dillon Field Office. However, Ute ladies' tresses, which is listed as threatened in Montana, is known from private and state lands in Beaverhead, Madison, Gallatin, and Jefferson counties. Fifty-three sensitive plant species inhabit BLM-administered lands within the Dillon Field Office. Eight of those species are known to occur within the Cumulative Impact Area of the Madison Watershed (MW) Environmental Assessment. The potential effects that the various alternatives may have on these species are summarized in the following table. A detailed discussion of predicted effects and potential impacts to special status plant species and their habitat is provided in the attached "Supplemental Information on Special Status Plants on BLM Lands in the Madison Watershed."

Definitions of Abbreviations used in the Table.

NI - No Impact

BI - Beneficial impact to populations or habitat

MIIH - May impact individuals or habitat, but will not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species.

*** WIFV** - Will impact individuals or habitat with a consequence that the action may contribute to a trend toward federal listing or cause a loss of viability to the population or species.

***** Consultation with the U.S. Fish and Wildlife Service will be initiated if an alternative is selected that may contribute to a loss of viability to a population of species reviewed in this evaluation.

Biological Evaluation Summary for Special Status Plants for the Madison Watershed Environmental Assessment (DOI-BLM-MT-B050-2009-0060-EA)

Common Name *Genus species*	Does the species occur on Public Lands within the Madison Watershed?	Is the species or its habitat found in the Cumulative Impact Area?	Are irreversible or irretrievable resources involved?	What effect could this proposal have? *		
				Alt. A	Alt. B	Alt. C
Ute Ladies' Tresses *Spiranthes diluvialis*	NO	NO	--	--	--	--
Cusick's Horse-mint *Agastache cusickii*	NO	NO	--	--	--	--
Western snakeroot *Ageratina occidentalis*	NO	NO	--	--	--	--
Tapertip onion *Allium acuminatum*	YES	YES	NO	NI		
Sitka Columbine *Aquilegia formosa*	NO	YES	NO	NI		
Sapphire Rockcress *Arabis fecunda*	NO	NO	--	--	--	--
Painted Milkvetch *Astragalus ceramicus var. apus*	NO	NO	--	--	--	--
Lesser Rushy Milkvetch *Astragalus convallarius var. convallarius = A. junciformis*	NO	NO	--	--	--	--
Bitterroot Milkvetch *Astragalus scaphoides*	NO	NO	--	--	--	--
Railhead Milkvetch *Astragalus terminalis*	YES	YES	NO	MIIH	BI	BI
Large-leafed Balsamroot *Balsamorhiza macrophylla*	NO	YES	NO	NI		
Red Sage *Bassia americana*	NO	NO	--	--	--	--
Mojave brickellbush *Brickellia oblongifolia*	NO	NO	--	--	--	--
Idaho Sedge *Carex idahoa*	NO	NO	--	--	--	--
Lesser Indian paintbrush *Castilleja minor* ssp. *minor*	NO	NO	--	--	--	--
Fendler Cat's-eye *Cryptantha fendleri*	NO	NO	--	--	--	--
Beavertip Draba *Draba globosa*	NO	YES	NO	NI		
Wind River Draba *Draba ventosa*	NO	NO	--	--	--	--
Beaked spikerush *Eleocharis rostellata*	NO	YES	NO	NI		
Long-sheath waterweed *Elodea bifoliata*	NO	NO	--	--	--	--
Idaho Fleabane *Erigeron asperugineus*	NO	NO	--	--	--	--
Linearleaf Fleabane *Erigeron linearis*	NO	NO	--	--	--	--

Common Name *Genus species*	Does the species occur on Public Lands within the Madison Watershed?	Is the species or its habitat found in the Cumulative Impact Area?	Are irreversible or irretrievable resources involved?	What effect could this proposal have? *		
				Alt. A	Alt. B	Alt. C
Buff Fleabane *Erigeron parryi*	NO	NO	--	--	--	--
Mat Buckwheat *Eriogonum caespitosum*	NO	NO	--	--	--	--
Railroad Canyon Wild Buckwheat *Eriogonum soliceps*	NO	NO	--	--	--	--
Hiker's gentian *Gentianopsis simplex*	YES	YES	NO	NI		
Many-flowered Viguirea *Heliomeris multiflora var. multiflora*	NO	NO	--	--	--	--
Prostrate Hutchensia *Hornungia procumbens*	NO	NO	--	--	--	--
Ballhead Ipomopsis *Ipomopsis congesta ssp. crebrifolia*	NO	NO	--	--	--	--
Simple Bog Sedge *Kobresia simpliciuscula*	NO	NO	--	--	--	--
Beautiful Bladderpod *Lesquerella pulchella*	NO	NO	--	--	--	--
Sand Wildrye *Leymus flavescens*	NO	NO	--	--	--	--
Taper-tip Desert-parsley *Lomatium attenuatum*	NO	NO	--	--	--	--
Marsh Felwort *Lomatogonium rotatum*	NO	NO	--	--	--	--
Dwarf purple monkeyflower *Mimulus nanus*	NO	YES	NO	NI		
Primrose monkeyflower *Mimulus primuloides*	NO	NO	--	--	--	--
Low northern – rockcress *Neotorularia humilis*	NO	NO	--	--	--	--
Meadow pennycress *Noccaea parviflora*	NO	YES	NO	NI		
Meadow Lousewort *Pedicularis crenulata*	NO	NO	--	--	--	--
Lemhi Beardtongue *Penstemon lemhiensis*	NO	NO	--	--	--	--
Whipple's Beardtongue *Penstemon whippleanus*	NO	NO	--	--	--	--
Hoary Phacelia *Phacelia incana*	NO	NO	--	--	--	--
Slender-branched Popcorn Flower *Plagiobothrys leptocladus*	NO	NO	--	--	--	--
Spiny skeletonweed *Pleiacanthus spinosus*	YES	YES	NO	MIIH	BI	BI

Common Name *Genus species*	Does the species occur on Public Lands within the Madison Watershed?	Is the species or its habitat found in the Cumulative Impact Area?	Are irreversible or irretrievable resources involved?	What effect could this proposal have? *		
				Alt. A	Alt. B	Alt. C
Alkali Primrose *Primula alcalina*	NO	NO	--	--	--	--
Mealy Primrose *Primula incana*	NO	NO	--	--	--	--
James Stitchwort *Pseudostellaria jamesiana*	NO	NO	--	--	--	--
Lemmon's Alkaligrass *Puccinellia lemmonii*	NO	NO	--	--	--	--
White-stemmed Globe-mallow *Sphaeralcea munroana*	NO	NO	--	--	--	--
Silver Chicken Sage *Sphaeromeria argentea*	NO	NO	--	--	--	--
Rocky Mountain Dandelion *Taraxacum eriophorum*	NO	NO	--	--	--	--
Alpine Meadowrue *Thalictrum alpinum*	NO	NO	--	--	--	--
Slender Thelypody *Thelypodium sagittatum*	NO	NO	--	--	--	--
Showy Townsendia *Townsendia florifera*	NO	NO	--	--	--	--

* The livestock management and project proposals are not consistent across alternatives. For example, the season of use for one allotment under Alternative B may not be the same as the season of use for another allotment under the same alternative. For the purposes of this biological evaluation if a proposed grazing treatment (numbers, duration, time of year, frequency of rest), project or vegetative treatment within a given alternative is likely to adversely affect a sensitive plant or its habitat, then that effect is reflected in the table.

Supplemental Information on Special Status Plants on BLM Lands in the Madison Watershed

The Dillon Resource Management Plan provides guidance that requires project sites in high probability habitats to be surveyed for sensitive plants prior to any ground disturbing activities. This reduces the possibility that sensitive plant species would be accidentally or inadvertently impacted by BLM activities.

A population of hiker's gentian is apparently being maintained under currently authorized livestock management and won't be negatively impacted under any of the proposed alternatives. Conducting an inventory and mapping this population will assist in identifying other existing or potential threats to this population.

Under current management, spotted knapweed is filling a similar niche as spiny skeletonweed along the Madison River terraces of the Bar Seven, McAtee Bridge, MVHP, and Wall Creek Game Range Allotments. If untreated, as proposed in Alternative A, spotted knapweed would likely out compete the spiny skeletonweed in these areas in the long term, due to its efficient use of available resources and allelopathic effects on adjacent vegetation.

Aerial herbicide applications, to reduce spotted knapweed infestations along the Madison River as proposed in Alternatives B and C, may impact individual spiny skeletonweed plants in the short term, but would have a beneficial impact in the long term by reducing competition from the spotted knapweed. Much of this area is also suitable habitat for railhead milkvetch, which would benefit from the weed treatments, as well. Prior to treatment, an inventory of spiny skeletonweed would be conducted, study plots would be established to determine the best treatment protocol for removing spotted knapweed plants from within occupied spiny skeletonweed habitat, and seed may be collected to reseed the area following treatment.

Railhead milkvetch is palatable to both livestock and wildlife, therefore; action alternatives that include deferred-grazing and/or rest (Bar Seven and McAtee Bridge) or no grazing (MVHP) may allow for potential population expansion of railhead milkvetch, where suitable habitat exists, by reducing the opportunity for livestock to graze railhead milkvetch plants.

If untreated, as proposed in Alternative A, the leafy spurge infestation on the west side of Red Mountain, in the Flying D Allotment, would negatively impact the railhead milkvetch population in this area. Herbicide applications, as proposed in Alternative B, would likely cause mortality of railhead milkvetch individuals over the short term, but would reduce the competition from leafy spurge, which would be beneficial in the long term. In the short term, grazing sheep or goats in addition to herbicide treatments, as proposed in Alternative C, may more negatively impact railhead milkvetch plants, but maybe necessary to effectively reduce the leafy spurge infestation and improve railhead milkvetch habitat. Prior to treatment, an inventory of railhead milkvetch would be conducted and seed may be collected to reseed the area following treatment.

Cumulative Considerations:
High probability habitats will be surveyed for sensitive plants prior to any ground disturbing activities on federal land but botanical surveys aren't required on private and state lands even on cooperative projects (e.g. a pipeline that crosses multiple ownerships). It's possible that sensitive plant species could be accidentally or inadvertently impacted by construction or placement of range improvement projects on non-federal lands.

The invasion of introduced species and noxious weeds near and into special plant species habitat across all ownerships poses a direct threat to these plants through competition, habitat degradation and the potential impact of herbicides. The use of insecticides on private lands within the MW to control grasshoppers or other insects may affect pollinators that visit sensitive plant species on BLM lands.

_____ _____
Signature Date

Printed Name and Title: Brian Thrift, Rangeland Management Specialist

References:

Elzinga, C. 1997. Habitat Conservation Assessment and Conservation Strategy the Lemhi Penstemon. Unpublished report to the Bureau of Land Management. Alderspring Ecological Consulting, Tendoy, ID.

Heidel, B.L. 1998. Conservation status of *Spiranthes diluvialis* Sheviak in Montana. Unpublished report to U.S. Fish and Wildlife Service. Montana Natural Heritage Program, Helena. 55 pp. + app.

Heidel, B.L., and J. Vanderhorst. 1996. Sensitive plant surveys in Beaverhead and Madison counties, MT. Unpublished report to the Bureau of Land Management. Montana Natural Heritage Program, Helena, MT.

Lesica, P. 1998. Conservation status of *Carex parryana ssp. idahoa* in Montana. Unpublished report to the Beaverhead National Forest. Montana Natural Heritage Program. Helena, MT.

Lesica, P. 2003. Conserving Globally Rare Plants on Lands Administered by the Dillon Office of the Bureau of Land Management. Report to the Bureau of Land Management, Dillon Office. Montana Natural Heritage Program, Helena, MT.

Montana Natural Heritage Program (MNHP). 2009. Montana Rare Plant Field Guide. (Available online @ http://mtnhp.org/SpeciesOfConcern/Default.aspx)

United States Department of the Interior, Bureau of Land Management, Dillon Field Office. 2009. Montana BLM Sensitive Plant Species Found on or Near BLM Lands Administered by the Dillon Field Office. List prepared for the Dillon Field Office based on Instruction Memorandum No. MT-2009-039

Utah State University Extension. 2009. Range Plants of Utah. (Available online @ http://extension.usu.edu/rangeplants/)

BLM DILLON FIELD OFFICE
Biological Evaluation for Special Status Fish and Wildlife Species
Form Revised May 2009 - Updated June 2010

Project: Madison Watershed Environmental Assessment

Step 1a.	Step 1b.	Step 1c.	Step 2	Step 3.	Step 4.	Step 5.	Step 5.	Step 5.
List of all Special Status Species that are known or suspected to occur on the DFO.	**Current Management Status of the Species.**	**Does the species occur on this portion of the Field Office?**	**Is the species or its habitat found in the surrounding area?**	**Could this proposal have any effect?**	**Are Irreversible or Irretrievable Resources involved?**	**Alt A level of effect**	**Alt B level of effect**	**Alt C level of effect**
Canada Lynx (L*ynx canadensis*)	Threatened	N	Y	N				
Grizzly Bear (*Ursus arctos horribilus*)	Threatened	Y	Y	Y	N	NE	NLAA	NLAA
Greater Sage Grouse (*Centrocercus urophasianus*)	Candidate	Y	Y	Y	N	NI	MIIH	MIIH
Mammals								
Fisher (*Martes pennanti*)	Sensitive	N	Y	N				
Fringed Myotis (*Myotis thysanodes)*	Sensitive	N	Y	N				
Gray Wolf *(Canis lupus*)	Sensitive	Y	Y	N				
Great Basin Pocket Mouse *(Perognathus parvus)*	Sensitive	N	Y	N				
Long-eared Myotis *(Myotis evotis)*	Sensitive	Y	Y	N				
Long-legged Myotis *(Myotis volans)*	Sensitive	Y	Y	N				
North American Wolverine (*Gulo gulo luscus*)	Sensitive	Y	Y	N				
Pygmy Rabbit (*Brachylagus idahoensis*)	Sensitive	N	Y	N				
Townsend's Big-eared Bat *(Plecotus townsedii)*	Sensitive	N	Y	N				
Birds								
Bald Eagle (*Haliaeetus leucocephalus*)	Sensitive	Y	Y	N				

Step 1a.	Step 1b.	Step 1c.	Step 2	Step 3.	Step 4.	Step 5.	Step 5.	Step 5.
List of all Special Status Species that are known or suspected to occur on the DFO.	**Current Management Status of the Species.**	**Does the species occur on this portion of the Field Office?**	**Is the species or its habitat found in the surrounding area?**	**Could this proposal have any effect?**	**Are Irreversible or Irretrievable Resources involved?**	**Alt A level of effect**	**Alt B level of effect**	**Alt C level of effect**
Black Tern *(Chlidonias niger*)	Sensitive	Y	Y	N				
Black-backed Woodpecker *(Picoides arcticus)*	Sensitive	Y	Y	Y	N	NI	MIIH	MIIH
Black-crowned Night Heron *(Nycticorax nycticorax)*	Sensitive	Y	Y	N				
Bobolink *(Dolichonyx orysivorus)*	Sensitive	Y	Y	Y	N	MIIH	BI	BI
Brewer's Sparrow *(Spizella breweri)*	Sensitive	Y	Y	Y	N	NI	MIIH	MIIH
Burrowing Owl (*Athene cunicularia*)	Sensitive	N	N					
Common Loon (*Gavia immer*)	Sensitive	Y	Y	N				
Ferruginous Hawk (*Buteo regalis*)	Sensitive	Y	Y	N				
Flammulated Owl (*Otus flammeolus*)	Sensitive	Y	Y	Y	N	NI	MIIH	MIIH
Franklin's Gull *(Larus pipixcan)*	Sensitive	Y	Y	N				
Golden Eagle *(Aquila chrysaetos)*	Sensitive	Y	Y	N				
Great Gray Owl (*Strix nebulosa*)	Senstive	Y	Y	Y	N	NI	MIIH	MIIH
Harlequin Duck (*Histrionicus histrionicus)*	Sensitive	N	N					
Loggerhead Shrike (*Lanius ludovicianus*)	Sensitive	Y	Y	Y	N	NI	MIIH	MIIH
Long-billed Curlew (*Numenius americanus)*	Sensitive	Y	Y	N				
Marbled Godwit *(Limosa fedoa)*	Sensitive	Y	Y	N				
McCown's Longspur *(Calcarius mccownii)*	Sensitive	Y	Y	N				

Step 1a.	Step 1b.	Step 1c.	Step 2	Step 3.	Step 4.	Step 5.	Step 5.	Step 5.
List of all Special Status Species that are known or suspected to occur on the DFO.	**Current Management Status of the Species.**	**Does the species occur on this portion of the Field Office?**	**Is the species or its habitat found in the surrounding area?**	**Could this proposal have any effect?**	**Are Irreversible or Irretrievable Resources involved?**	**Alt A level of effect**	**Alt B level of effect**	**Alt C level of effect**
Northern Goshawk *(Accipiter gentilis)*	Sensitive	Y	Y	Y	N	NI	MIIH	MIIH
Peregrine Falcon (Falco peregrinus anatum)	Sensitive	Y	Y	N				
Sage Sparrow (Amphispiza belli)	Sensitive	Y	Y	Y	N	NI	MIIH	MIIH
Sage Thrasher (Oreoscoptes montanus)	Sensitive	Y	Y	Y	N	NI	MIIH	MIIH
Sedge Wren (*Cistothorus platensis*)	Sensitive	N	N					
Swainson's Hawk (Buteo swainsoni)	Sensitive	Y	Y	N				
Three-toed Woodpecker (Picoides tridactylus)	Sensitive	Y	Y	Y	N	NI	MIIH	MIIH
Trumpeter Swan (Cygnus buccinator)	Sensitive	Y	Y	N				
White-faced Ibis (Plegadis chihi)	Sensitive	N	N					
Amphibians/Reptiles								
Boreal/Western Toad (Bufo boreas)	Sensitive	Y	Y	N				
Plains Spadefoot (Spea bombifrons)	Sensitive	N	N					
Northern Leopard Frog (Rana pipiens)	Sensitive	N	Y	N				
Fish								
Westslope Cutthroat Trout (Onchorhynchus clarkii lewisi)	Sensitive	N	Y	N				
Fluvial Arctic Grayling (Thymallus arcticus)	Sensitive	Y	Y	N				

Step 6. Are there any specific recommendations to avoid significant effects (if any)? These are mitigation measures needed to avoid determinations of: LAA, LJ, WIFV. If so, state the location of the narrative describing these recommendations:

Step 7. Documentation: This short form is intended to follow a seven-step process to provide basic biological evaluations. Judgments must not be arbitrary but should be reasoned. This form provides a "road map" of that reasoning and assumes the judgments are drawn from numerous sources. Any species-specific impacts should be discussed in the NEPA document.

The signature below certifies that:

1. The wildlife biologist has reviewed the proposed action and its alternatives, but may or may not have provided input to alternative design, depending on the issues.

2. The wildlife biologist has an understanding of the specific conditions found in the affected area. Column 1a lists all possible Special Status Species in the Dillon Field Office. Column 1b identifies the species' current management status. Column 1c indicates whether there are no records (N/A), or whether the species is considered a Transient (T) or Resident (R) {for our purposes, resident includes migratory species that fulfill a portion of their life history here}. Step 2 is satisfied by field visits (or enough knowledge of local conditions from previous visits) resulting in enough information to determine if the area is potential habitat for species listed in Step 1. Extensive surveys are not necessary if the conservative approach is taken that: "suitable habitat" means the potential for occupancy.

3. The wildlife biologist has an understanding of the species habitat needs and other attributes important to the determination. This can be a combination of literature review, professional experience, and consultation with others.

4. The wildlife biologist has assimilated the above information in making the "determinations" (i.e. final judgments about the scientific significance of the effects).

Signed_____Date_____

Signed_____Date_____

Printed Name and Title: Katie Benzel, Wildlife Biologist_
Paul Hutchinson, Fisheries Biologist

Definitions of Abbreviations for the Short Form BE

N/A – "Not Applicable." Indicates this species does not occur in the project area or that the project would have no bearing on its potential habitat. These species were removed from detailed analysis after field review of existing and potential habitats and consideration of distribution records.

FEDERALLY LISTED SPECIES

NE - No Effect
***LAA** - May Effect - Likely to Adversely Affect (formal consultation required)
NLAA - May Effect, Not Likely to Adversely Affect (informal consultation - concurrence with determination - required)
BE - Beneficial Effect (informal consultation - concurrence with determination - required)

SPECIES PROPOSED FOR LISTING

NE - No Effect
NLJ - Not likely to Jeopardize the continued existence of the species or result in the destruction or adverse modification of proposed critical habitat
***LJ** - Likely to Jeopardize the continued existence of the species or result in the destruction or adverse modification of proposed critical habitat

SENSITIVE SPECIES

NI - No Impact
MIIH - May Impact Individuals or Habitat, but will not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species.
***WIFV** - Will Impact Individuals or habitat with a consequence that the action may contribute to the need for federal listing or cause a loss of viability to the population or species.
BI - Beneficial Impact

* triggers formal consultation process

NARRATIVE of POTENTIAL IMPACTS

LISTED SPECIES

Canada Lynx:
The Madison Watershed (MW) is considered unoccupied by lynx. In the event that lynx establish or move through the MW, BLM public land provides corridors between potential Canada lynx habitat on Forest Service administered lands at higher elevations. Canada lynx distribution is largely tied to snowshoe hare occurrence. The age class of conifers required for snowshoe hare habitat is uncommon on BLM administered lands in the MW. Regeneration following the proposed forest and woodland treatments has the potential to provide snowshoe hare habitat. The Aspen Creek unit is within the Madison-Gravelly Range linkage area identified in the Northern Rockies Lynx Management Direction (USDA Forest Service 2007). The other forest and woodland treatment units are not within designated linkage areas. However, since the forest and woodland treatments proposed are on such a small scale, it is unlikely that regeneration in these units would lead to snowshoe hare and lynx colonization.

Grizzly Bear:
Whitebark pine seeds are an important component of grizzly bear diets. The relisting of the Greater Yellowstone Ecosystem grizzly bear population as threatened under the ESA was largely due to whitebark pine declines. Actions for whitebark pine trees under alternatives B and C include protecting individual trees, planting seedlings, cutting competing conifers around healthy whitebark pine trees, and contributing cones to the genetic breeding program would promote habitat and the food source for grizzly bear.

Grizzly bear are considered transient in the Tobacco Root Mountains and resident in the Madison and Gravelly Ranges. To reduce the potential for attracting grizzly bears in areas where grizzly bear conflicts with livestock are more likely to occur, a stipulation will be added to grazing leases stating that the lessee, agency personnel, and MFWP will jointly determine how to properly treat or dispose of livestock carcasses. Amending grazing leases to state that livestock losses may occur from grizzly bears would create awareness and reduce conflicts between lessees and agencies responsible for managing grizzlies.

The construction of roads for timber harvest is a common concern for grizzly bears. Roads constructed for Preacher1, Preacher2, Windy3, and Aspen Creek would be temporary and therefore would not lead to increased wildlife disturbance from improved motorized vehicle access in the long-term. Since these temporary roads will be closed there will most likely be no effect on grizzlies. Though grizzly bears are considered transient in the Tobacco Root Mountains, they may occupy the area in the future. A food storage stipulation will be included in timber harvest contracts in areas where grizzly conflicts may occur in the Tobacco Roots, and in the Aspen Creek unit. Cover will be lost for grizzlies within the timber harvest units, until regeneration occurs.

Overall, actions under alternatives B and C may effect, not likely to adversely affect (NLAA) grizzly bear.

CANDIDATE SPECIES

Greater Sage Grouse:
If a prescribed burn in Aspen Creek occurred as proposed under alternatives B and C, it may impact individuals or habitat (MIIH), but will not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species. The burn would cause a short-term loss of sagebrush cover in the treated area, but sagebrush cover is available adjacent to the treated area and in the long-term sagebrush habitat would be enhanced once conifer encroachment is eliminated. After the burn, sage grouse brood-rearing habitat would be enhanced with the increase in forbs in the treated area.

Suitable habitat conditions exist for sagebrush obligate species within sagebrush habitat on allotments meeting upland and biodiversity standards. BLM would maintain existing sagebrush habitat so that 75% or more of big sagebrush communities provide vegetative composition and structure for sagebrush obligate species. As sage grouse habitat is delineated, BLM will maintain nesting/early brood rearing canopy cover of 15–25% sagebrush and an average of 6 to 7 inches herbaceous understory within site potential, maintain brood rearing canopy cover of 15–

25% sagebrush near riparian areas or wet meadows while maintaining available forbs in the wet meadows, and maintain or increase composition of highly nutritious forbs (e.g., composites and legumes) in nesting/early brood rearing habitat. Residual grass cover following grazing is important for sage grouse nesting habitat. Light to moderate cattle grazing or managed grazing systems can improve quantity and quality of summer forage (i.e. forbs) for sage grouse (MFWP 2005). Implementing an annual utilization guideline of 50% on cool season bunchgrasses to maintain plant health and vigor would provide residual herbaceous nesting cover.

BLM SENSITIVE SPECIES

Gray Wolf:
In 2008, a minimum estimate of 130 wolves in 18 verified packs existed in the Montana portion of the Greater Yellowstone Experimental Area (Sime et al. 2009). All grazing permits in the MW will be modified to state that livestock depredations may occur from gray wolves. Since the de-listing of the gray wolf, MT FWP has implemented a hunting season which also has the potential to reduce livestock depredation in the future. Actions proposed under any alternatives would not result in the destruction or adverse modification of existing habitat or prey base for wolves that would lead to re-listing.

Black-backed Woodpecker and Three-toed Woodpecker:
Under alternatives B and C, if the prescribed burns in Aspen Creek and/or Preacher3 occurred, it would have a beneficial impact (BI) for these two woodpecker species. The increase in wood-boring beetles in burned areas attracts black-backed and three-toed woodpeckers. If the salvage harvest of dead/dying timber in alternatives B and C occur, it MIIH with a loss in foraging habitat for wood boring beetle larvae, but will not likely contribute to a trend towards federal listing or cause a loss of viability to the population or species, especially since there is so much beetle-impacted timber acreage throughout the watershed.

Bobolink:
Bobolinks are a ground nesting bird found in open grasslands and fallow fields. On allotments where concerns were identified, alternative A MIIH if the current grazing practices continue to reduce forb and cool season bunchgrass cover for bobolinks and other ground nesting birds. Changes in grazing to facilitate cool season bunchgrass development would have a BI on cover and forage available for bobolinks under alternatives B and C.

Flammulated Owl:
Flammulated owls live in open pine forests, roosting and nesting in tree cavities. Commercial and non-commercial timber harvest under both alternatives B and C MIIH with the loss of trees to nest and roost in. However, the small scale of these treatment units and the vast forest acreage surrounding these areas retains adequate flammulated owl habitat.

Great Gray Owl and Northern Goshawk:
Northern goshawks and great gray owls occupy forest habitat. Great gray owls nest on broken topped dead trees or take over the existing nest of another species, including Northern goshawk nests. Goshawks nest in larger mature trees. Commercial and non-commercial timber harvest in alternatives B and C MIIH, with the loss of nesting habitat. However, opening these canopies

could enhance foraging opportunities. Prior to any timber treatments, surveys for goshawks and great gray owls would identify nesting stands. If either of these species are nesting in the area, yearly monitoring would determine occupancy before harvest activities and timing stipulations would be applied to avoid disturbance during the nesting season.

Loggerhead Shrike, Sage Thrasher, Brewer's Sparrow, and Sage Sparrow:
Site specific sagebrush losses from the Preacher3 and Aspen Creek prescribed burns could displace loggerhead shrike, sage thrasher, sage sparrow, and Brewer's sparrow but adjacent suitable habitat is available. While sagebrush cover would be lost in the treatment area in the short-term, sagebrush habitat would be restored to the area with the elimination of conifer encroachment. The treated area would be converted to early seral sagebrush habitat and progress to mid-late seral in about 20 years. This would provide for seral and structural diversity within sagebrush steppe habitat on a landscape level. This project MIIH, however in the long-term the prevention of sagebrush habitat from becoming conifer habitat would benefit these species'.

Westslope Cutthroat Trout
Based on extensive fisheries surveys, there are currently no known populations of 90% or greater WCT on BLM lands within this assessment. WCT are known to occur within the Madison drainage, but are not found in any of the stream reaches on BLM administered land.

Arctic Grayling
A small population of primarily adfluvial arctic grayling reside in Ennis Lake and the river delta area a short way upstream of the lake. Currently there is no known fluvial population known to use the Madison River. Some limited use of the River upstream of the lake may occur for spawning.

References:

Montana Fish, Wildlife, & Parks (MFWP). 2005. Management Plan and Conservation Strategies for Sage Grouse in Montana; Helena, MT. 130 pp.

Sime, C. A., V. Asher, L. Bradley, K. Laudon, N. Lance, and M. Ross, and J.Steuber. 2009. Montana gray wolf conservation and management 2008 annual report. Montana Fish,Wildlife & Parks. Helena, Montana. 154 pp.

The Cornell Lab of Ornithology. 2010. *All about birds*. *Available at*: http://www.allaboutbirds.org/guide. *Accessed June 2010*.

USDA Forest Service. 2007. Northern Rockies Lynx Management Direction, Final Environmental Impact Statement. Missoula, MT. 574 p.