

Appendix C
Sensitive Plant Species and Wildlife Species
Biological Evaluations

**Biological Evaluation for
Special Status Plants on BLM Lands in the East Bench Watershed
(East Bench Watershed Environmental Assessment)
DOI-BLM-MT-050-2009-0002-EA**

Prepared by
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April - May 2009

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 within the East Bench Watershed (EBW). The majority of the public land within the EBW is relatively low probability habitat for the 53 plants currently on the sensitive species list for the Dillon Field Office. Only five special status plants are known from within the EBW and another three species are known to occur within the greater affected area for which cumulative effects will be considered for the East Bench Watershed Environmental Assessment. The potential effects that the various alternatives may have on these species are summarized in the following table. A brief 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 East Bench Watershed".

Definitions of Abbreviations used in the Table.

NI - No impact

BI - Beneficial impact to populations or habitat

MIH - 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 East Bench Watershed
Environmental Assessment (DOI-BLM-MT-050-2009-0002-EA)

| Common Name <i>Genus species</i> | Does the species occur within the East Bench Watershed? | Is the species or its habitat found in the greater affected area? | Are irreversible or irretrievable resources involved? | What effect could this proposal have? | | |
|---------------------------------------------------------------------------------------------|---------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------|---------------------------------------|--------|--------|
| | | | | Alt. A | Alt. B | Alt. C |
| Ute ladies' tresses <i>Spiranthes dilivialis</i> | YES | YES | NO | NI | | |
| Cusick's horse-mint <i>Agastache cusickii</i> | NO | NO | -- | -- | -- | -- |
| Western snakeroot <i>Ageratina occidentalis</i> | NO | NO | -- | -- | -- | -- |
| Tapertip onion <i>Allium acuminatum</i> | NO | NO | -- | -- | -- | -- |
| Sitka columbine <i>Aquilegia formosa</i> | NO | NO | -- | -- | -- | -- |
| Sapphire rockcress <i>Arabis fecunda</i> | NO | NO | -- | -- | -- | -- |
| Painted milkvetch <i>Astragalus ceramicus var. apus</i> | NO | NO | -- | -- | -- | -- |
| Lesser rushy milkvetch <i>Astragalus convallarius var. convallarius = A. junciformis</i> | NO | NO | -- | -- | -- | -- |
| Bitterroot milkvetch <i>Astragalus scaphoides</i> | NO | NO | -- | -- | -- | -- |
| Railhead milkvetch <i>Astragalus terminalis</i> | NO | NO | -- | -- | -- | -- |
| Large-leafed balsamroot <i>Balsamorhiza macrophylla</i> | NO | NO | -- | -- | -- | -- |
| Red Sage <i>Bassia americana</i> | NO | NO | -- | -- | -- | -- |
| Mohave brickellbush <i>Brickellia oblongifolia</i> | NO | NO | -- | -- | -- | -- |

Appendix C

| Common Name <i>Genus species</i> | Does the species occur within the East Bench Watershed? | Is the species or its habitat found in the greater affected area? | Are irreversible or irretrievable resources involved? | What effect could this proposal have? | | |
|-----------------------------------------------------------------------|---------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------|---------------------------------------|--------|--------|
| | | | | Alt. A | Alt. B | Alt. C |
| Idaho sedge <i>Carex idahoensis</i> | NO | NO | -- | -- | -- | -- |
| Lesser Indian paintbrush <i>Castilleja minor</i> ssp. <i>minor</i> | YES | YES | NO | NI | | |
| Fendler cat's-eye <i>Cryptantha fendleri</i> | NO | NO | -- | -- | -- | -- |
| Beavertip draba <i>Draba globosa</i> | NO | NO | -- | -- | -- | -- |
| Wind River draba <i>Draba ventosa</i> | NO | NO | -- | -- | -- | -- |
| Beaked spikerush <i>Eleocharis rostellata</i> | YES | YES | NO | NI | | |
| Long-sheath waterweed <i>Elodea bifoliata</i> | NO | NO | -- | -- | -- | -- |
| Idaho fleabane <i>Erigeron asperugineus</i> | NO | NO | -- | -- | -- | -- |
| Linearleaf fleabane <i>Erigeron linearis</i> | NO | NO | -- | -- | -- | -- |
| Buff fleabane <i>Erigeron parryi</i> | NO | YES | NO | NI | | |
| Mat buckwheat <i>Eriogonum caespitosum</i> | NO | NO | -- | -- | -- | -- |
| Railroad Canyon wild buckwheat <i>Eriogonum soliceps</i> | NO | NO | -- | -- | -- | -- |
| Hiker's gentian <i>Gentianopsis simplex</i> | NO | NO | -- | -- | -- | -- |
| Many-flowered viguiera <i>Helioomeris multiflora</i> var. | NO | NO | -- | -- | -- | -- |

Appendix C

| Common Name <i>Genus species</i> | Does the species occur within the East Bench Watershed? | Is the species or its habitat found in the greater affected area? | Are irreversible or irretrievable resources involved? | What effect could this proposal have? | | |
|------------------------------------------------------------------|---------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------|---------------------------------------|--------|--------|
| | | | | Alt. A | Alt. B | Alt. C |
| <i>multiflora</i> | | | | | | |
| Prostrate hutchensia <i>Hornungia procumbens</i> | NO | NO | -- | -- | -- | -- |
| Ballhead ipomopsis <i>Ipomopsis congesta ssp. crebrifolia</i> | NO | NO | -- | -- | -- | -- |
| Simple bog sedge <i>Kobresia simpliciuscula</i> | NO | NO | -- | -- | -- | -- |
| Beautiful bladderpod <i>Lesquerella pulchella</i> | NO | NO | -- | -- | -- | -- |
| Sand wildrye <i>Leymus flavescens</i> | NO | NO | -- | -- | -- | -- |
| Taper-tip desert-parsley <i>Lomatium attenuatum</i> | YES | YES | NO | MIH | BI | BI |
| Marsh felwort <i>Lomatogonium rotatum</i> | NO | NO | -- | -- | -- | -- |
| Dwarf purple monkeyflower <i>Mimulus nanus</i> | NO | NO | -- | -- | -- | -- |
| Primrose monkeyflower <i>Mimulus primuloides</i> | NO | NO | -- | -- | -- | -- |
| Low northern –rockcress <i>Neotorularia humilis</i> | NO | NO | -- | -- | -- | -- |
| Meadow pennycress <i>Noccaea parviflora</i> | NO | NO | -- | -- | -- | -- |
| Meadow lousewort <i>Pedicularis crenulata</i> | NO | NO | -- | -- | -- | -- |
| Lemhi beardtongue <i>Penstemon lemhiensis</i> | NO | NO | -- | -- | -- | -- |
| Whipple's beardtongue | NO | NO | -- | -- | -- | -- |

Appendix C

| Common Name <i>Genus species</i> | Does the species occur within the East Bench Watershed? | Is the species or its habitat found in the greater affected area? | Are irreversible or irretrievable resources involved? | What effect could this proposal have? | | |
|---------------------------------------------------------------------|---------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------|---------------------------------------|--------|--------|
| | | | | Alt. A | Alt. B | Alt. C |
| <i>Penstemon whippleanus</i> | | | | | | |
| Hoary phacelia <i>Phacelia incana</i> | NO | NO | -- | -- | -- | -- |
| Slender-branched popcorn flower <i>Plagiobothrys leptocladus</i> | NO | NO | -- | -- | -- | -- |
| Spiny skeletonweed <i>Pleiacanthus spinosus</i> | NO | NO | -- | -- | -- | -- |
| Alkali primrose <i>Primula alcalina</i> | NO | NO | -- | -- | -- | -- |
| Mealy primrose <i>Primula incana</i> | YES | YES | NO | NI | | |
| James stitchwort <i>Pseudostellaria jamesiana</i> | NO | NO | -- | -- | -- | -- |
| Lemmon's alkaligrass <i>Puccinellia lemmonii</i> | NO | NO | -- | -- | -- | -- |
| White-stemmed globe-mallow <i>Sphaeralcea munroana</i> | NO | NO | -- | -- | -- | -- |
| Silver chicken sage <i>Sphaeromeria argentea</i> | NO | NO | -- | -- | -- | -- |
| Rocky Mountain dandelion <i>Taraxacum eriophorum</i> | NO | YES | NO | NI | | |
| Alpine meadowrue <i>Thalictrum alpinum</i> | NO | NO | -- | -- | -- | -- |
| Slender thelypody <i>Thelypodium sagittatum</i> | NO | NO | -- | -- | -- | -- |
| Showy townsendia <i>Townsendia florifera</i> | NO | YES | NO | NI | | |

Supplemental Information on Special Status Plants on BLM Lands in the East Bench 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.

Taper-tip desert-parsley is known from canyon bottoms, toeslopes and high elevation habitat in the Ruby Mountains. Eliminating livestock trailing in Ladder Canyon under alternatives B and C would improve habitat quality may allow for colonization by Taper-tip desert-parsley. Known populations are outside any areas proposed for fuels and healthy forest treatments, but proposals to reduce conifer encroachment in curl-leaf mountain mahogany communities under alternatives B and C may create habitat conditions favorable for Taper-tip desert-parsley.

Of the remaining four special status plant species found in the watershed, none of them are likely to be impacted by any of the alternatives. Ute ladies' tresses, Lesser Indian paintbrush, Beaked spikerush and Mealy primrose are known to occur in private wetlands in the EBW, but are situated far enough away that the livestock management, range improvement projects or vegetation treatments proposed on BLM allotments will be of little or no consequence. Likewise the populations of Buff Fleabane, Showy townsendia and Rocky Mountain dandelion aren't expected to be influenced or impacted by BLM activities due to their distance from public lands in the EBW.

Cumulative Considerations:

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

References:

- 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. 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

BLM DILLON FIELD OFFICE
Biological Evaluation for Special Status Fish and Wildlife Species.

Form Revised May 2009

Project: East Bench Watershed E.A.

| Step 1a. | Step 1b. | Step 1c. | Step 2 | Step 3. | Step 4. | Step 5. | 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 Irrecoverable Resources involved? | Alt A level of effect | Alt B level of effect | Alt C level of effect | Alt D level of effect |
| Canada Lynx (<i>Lynx canadensis</i>) | Threatened | N | N | | | | | | |
| Fluvial arctic grayling (<i>Thymallus arcticus</i>) | Sensitive | N | N | | | | | | |
| Mammals | | | | | | | | | |
| Fisher (<i>Martes pennanti</i>) | Sensitive | N | N | | | | | | |
| Fringed myotis (<i>Myotis thysanodes</i>) | Sensitive | N | N | | | | | | |
| Gray Wolf (<i>Canis lupus</i>) | Sensitive | Y | Y | N | | | | | |
| Great Basin pocket mouse (<i>Perognathus parvus</i>) | Sensitive | N | N | | | | | | |
| Grizzly Bear (<i>Ursus arctos horribilus</i>) | Sensitive | N | Y | N | | | | | |
| Long-eared Myotis (<i>Myotis evotis</i>) | Sensitive | N | N | | | | | | |

Appendix C

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|------------------------------------------------------------|-----------|---|---|---|--|--|--|--|--|
| Long-legged Myotis (<i>Myotis volans</i>) | Sensitive | N | N | | | | | | |
| North American Wolverine (<i>Gulo gulo luscus</i>) | Sensitive | N | N | | | | | | |
| Pygmy Rabbit (<i>Brachylagus idahoensis</i>) | Sensitive | Y | Y | N | | | | | |
| Townsend's Big-eared Bat (<i>Plecotus townsendii</i>) | Sensitive | N | N | | | | | | |

| (cont.) 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 | Alt D level of effect |
|---------------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------------------------------------|--------------------------------------------------------------|--------------------------------------|-------------------------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Birds | | | | | | | | | |
| Bald Eagle (<i>Haliaeetus leucocephalus</i>) | Sensitive | Y | Y | N | | | | | |
| Black Tern (<i>Chlidonias niger</i>) | Sensitive | N | N | | | | | | |
| Black-backed Woodpecker (<i>Picoides arcticus</i>) | Sensitive | N | N | | | | | | |
| Black-crowned Night Heron (<i>Nycticorax nycticorax</i>) | Sensitive | N | N | | | | | | |
| Bobolink (<i>Dolichonyx orysivorus</i>) | Sensitive | N | N | | | | | | |
| Brewer's sparrow (<i>Spizella breweri</i>) | Sensitive | N | N | | | | | | |
| Burrowing Owl (<i>Athene cunicularia</i>) | Sensitive | N | N | | | | | | |
| Common Loon (<i>Gavia immer</i>) | Sensitive | N | N | | | | | | |
| Ferruginous Hawk (<i>Buteo regalis</i>) | Sensitive | Y | Y | N | | | | | |
| Flammulated Owl (<i>Otus flammeolus</i>) | Sensitive | N | N | | | | | | |

Appendix C

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| Franklin's Gull (<i>Larus pipixcan</i>) | Sensitive | N | N | | | | | | |
| Golden Eagle (<i>Aquila chrysaetos</i>) | Sensitive | Y | Y | N | | | | | |
| Great Gray Owl (<i>Strix nebulosa</i>) | Sensitive | Y | Y | N | | | | | |
| Greater Sage Grouse (<i>Centrocercus urophasianus</i>) | Sensitive | Y | Y | Y | N | MIH | BI | BI | |
| Harlequin Duck (<i>Histrionicus histrionicus</i>) | Sensitive | N | N | | | | | | |
| Loggerhead Shrike (<i>Lanius ludovicianus</i>) | Sensitive | Y | Y | N | | | | | |
| Long-billed Curlew (<i>Numenius americanus</i>) | Sensitive | Y | Y | N | | | | | |

| (cont.) 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 Irrecoverable Resources involved? | Alt A level of effect | Alt B level of effect | Alt C level of effect | Alt D level of effect |
|----------------------------------------------------------------------------------------------------|--------------------------------------------------|--------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------|--------------------------------------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| Marbled Godwit (<i>Limosa fedoa</i>) | Sensitive | N | N | | | | | | |
| McCown's longspur (<i>Calcarius mccownii</i>) | Sensitive | N | N | | | | | | |
| Northern Goshawk (<i>Accipiter gentilis</i>) | Sensitive | Y | Y | N | | | | | |
| Peregrine Falcon (<i>Falco peregrinus anatum</i>) | Sensitive | Y | Y | N | | | | | |
| Sage Sparrow (<i>Amphispiza belli</i>) | Sensitive | Y | Y | N | | | | | |
| Sage thrasher (<i>Oreoscoptes montanus</i>) | Sensitive | Y | Y | N | | | | | |
| Sedge Wren (<i>Cistothorus platensis</i>) | Sensitive | N | N | | | | | | |
| Swainson's Hawk (<i>Buteo swainsoni</i>) | Sensitive | Y | Y | N | | | | | |

Appendix C

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| Three-toed Woodpecker (<i>Picooides tridactylus</i>) | Sensitive | N | N | | | | | | |
| Trumpeter Swan (<i>Cygnus buccinator</i>) | Sensitive | N | N | | | | | | |
| White-faced Ibis (<i>Plegadis chihi</i>) | Sensitive | N | N | | | | | | |
| Amphibian/reptiles | | | | | | | | | |
| Boreal/Western toad (<i>Bufo boreas</i>) | Sensitive | Y | Y | N | | | | | |
| Plains Spadefoot (<i>Spea bombifrons</i>) | | N | N | | | | | | |
| Northern leopard frog (<i>Rana pipiens</i>) | Sensitive | N | N | | | | | | |
| Fish | | | | | | | | | |
| Westslope cutthroat trout (<i>Onchorhynchus clarkii lewisi</i>) | Sensitive | Y | Y | Y | | MIIH | BI | BI | |

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).

Printed Name and Title: Kelly Bockting, Wildlife Biologist

Paul Hutchinson, Fisheries Biologist

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

MIH - 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

Gray Wolf

No den sites are documented, but gray wolf occurrences are rising and the EBW is likely to be at a minimum frequently occupied habitat. All grazing permits in the EBW will be modified to state that livestock depredations may occur from gray wolves. This population is managed as a non-essential, experimental population. Therefore, management is “Not Likely to Jeopardize” the continued existence of the species.

Grizzly Bear

In 2000 a single male grizzly bear was removed in Sweetwater Hills in an area of mixed BLM and private ownership, due to risks of human safety. Section 7 consultation was completed for the Dillon RMP and a take permit was issued for potential removal two grizzly bears. All projects are consistent with the terms and conditions of the Biological Opinion that was issued for the Dillon RMP (2005.) No grizzly bear removal is expected as a result of habituation and or food conditioning of grizzly bears or conflicts with livestock from proposed management actions in the EBW.

West Slope cutthroat trout (WCT):

Changes in grazing management and/or projects resulting in improved stream bank stability and increased riparian vegetation under alternatives B and C would improve WCT habitat. Actions proposed under alternatives B and C would have a beneficial impact (BI) to westslope cutthroat trout.

Greater sage grouse:

Improved riparian condition, juniper removal, and increased availability of succulent forage with improved riparian conditions would enhance brood-rearing habitat for sage grouse. Actions proposed under alternative B or C would have a beneficial impact (BI) to sage grouse.