SENSITIVE PLANT BIOLOGICAL EVALUATION

Benbow / Main Fork

Beartooth Ranger District
Custer National Forest

Prepared and Approved by

_____/s/ Kim Reid___
Kim Reid, Rare Plant Coordinator

September 2008

Summary Abstract (This information is from the conclusion section of this document). Documented sites or potential suitable habitat exists in the project area for the following sensitive plants. Determinations of impacts and management recommendations are noted.

Sensitive Species Biological Evaluation - Summary of Conclusion of Effects[1]

Common Name	Scientific Name	Effects Determination – Proposed Action[2]
Musk-root	*Adoxa maschatellina*	No Impact
Small yellow lady's slipper	*Cypripedium parviflorum*	No Impact
Giant helliborine	*Epipactis gigantea*	No Impact
Hiker's gentian	*Gentianopsis simplex*	No Impact
Beartooth goldenweed	*Haplopappus carthamoides var. subsquarrosus*	No Impact
Hall's rush	*Juncus hallii*	No Impact
Mealy Primrose	*Primula incana*	No Impact
Threeranked humpmoss	*Meesia triquetra*	No Impact
Jove's Buttercup	*Ranunculus jovis*	No Impact
Barratt's Willow	*Salix barrattiana*	No Impact
Shoshonea	*Shoshonea pulvinata*	No Impact

MANAGEMENT RECOMMENDATIONS

Recommended Mitigation

No mitigation is needed or recommended.

Recommended Monitoring

If sensitive plant populations are found during project implementation, monitoring of those populations should be accomplished and any potential adverse effects should be mitigated.

[1] Prepared and Approved by Kim Reid, Rare Plant Coordinator, Custer National Forest
[2] Proposed action incorporates design criteria (i.e., follow BMPs and SMZs) that results in Effects Determination. Determination made by Kim Reid, Custer National Forest Botany Coordinator.

INTRODUCTION

Forest Service policy regarding Biological Evaluaitons is summarized in Forest Service Manual (FSM) 2672.4. The intent of the Biological Evaluation process is to assess the potential impacts of propsed management activities, and ensure that such activities will not jeopardize the continued existence of: 1) Species listed, or proposed to be listed, as Engangered or Threatened by the U. S. Fish and Wildlife Service and 2) Species designated as sensitive by the Regional Forester.

PROPOSED MANAGEMENT

The Beartooth Ranger District, Custer National Forest, United States Forest Service proposes to improve public and firefighter safety by cleaning up areas of wind-damaged trees and reducing fuel loading on 238 acres of National Forest System lands in the Main Fork Rock Creek drainage and 377 acres of NFS lands in the Benbow area. The Benbow area falls within a 5,600 to 6000 foot elevation range. Main Fork Rock Creek area falls within a 7,000 to 7,600 foot elevation range.

The Benbow area is in the Little Rocky Creek and Fishtail Creek drainages, approximately 35 miles northwest of Red Lodge and 1.5 miles west of Dean, Montana (Figure 1). The Main Fork Rock Creek area (Main Fork) is approximately 9.5 miles south-southwest of Red Lodge (Figure 1).

The purpose of this project is to:

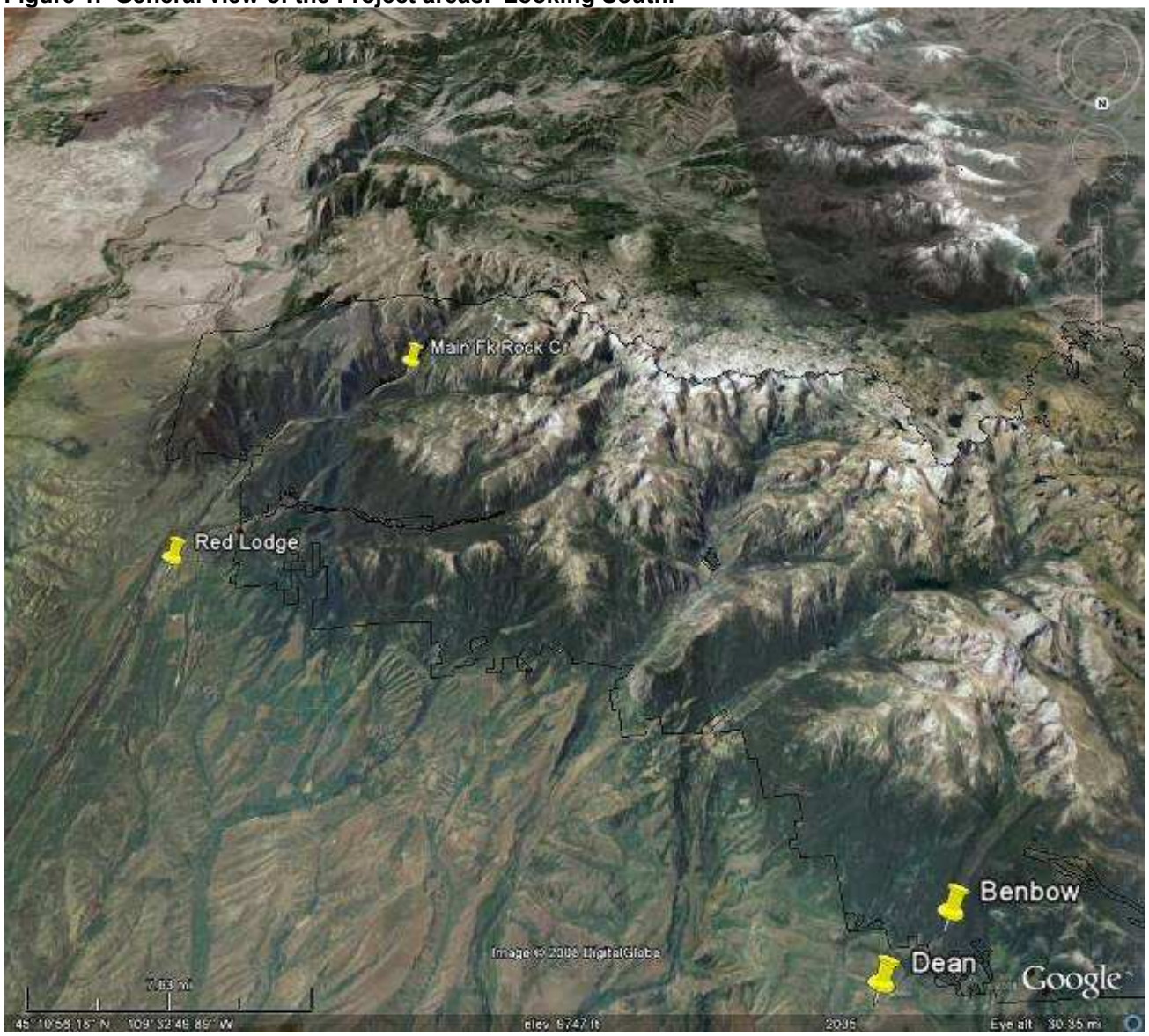
- Improve the ability to control and/or suppress wildfires to protect human and natural resources in the project areas.
- Reduce the risk to wildland firefighters and residents of the wildland-urban interface should a fire occur.
- Improve the ability to safely leave the areas in the event that a wildfire occurs.

AFFECTED ENVIRONMENT

The Beartooth Ranger District proposes to provide various vegetation treatments within the Benbow and Main Fork Rock Creek project area. The decision associated with this proposal and analysis will determine where vegetation treatment will occur and what specific guidelines will be established to meet various resource needs. The Benbow area is just south of Dean, Montana and the Main Fork Rock Creek area is south of Red Lodge, MT.

The areas are primarily comprised of lodgepole pine. Perennial flow occurs in both tributary and mainstem channels thoughout the analysis area. Springs and small ponds are also relatively common. : Rock Creek generally has moderate entrenchment, sinuosity and gradient with cobble sized substrate. Less entrenched segments result in decreased gradient and substrate size. Little Rocky and Fishtail Creeks are relatively high gradient with moderate entrenchment and sinuosity, and boulder sized substrate. These stream types with large substrate are relatively resistant to changes in streamflow or sediment loads (see Hydrology Report for further description of riparian settings).

Figure 1. General view of the Project areas. Looking South.



The following table outlines pertinent information about the species being evaluated and narrative follows which further details species' considerations.

Hazardous Fuels Reduction – Benbow and Main Fk Rock Creek
Sensitive Plant Report
Beartooth District

(R1 2004 List)

Table 1 – Beartooth District Sensitive Plant Species Rareness, Habitat, Ecology, and Occurrence Potential within Project Area

Common Name	Scientific Name	Type[3]*	Global Rank[4]	State Rank[5]	*Eleva-tion (ft)*	Habitat	Closest known population	Potential of Occurr-ence[6]	Vulnerability to Project Effects	Flowering Period	Fruiting Period	Lifeform	Effects Determination – Proposed Action[7]
Musk-root	*Adoxa maschatellina*	3	G5	S2	4,400-6,000	Vernally moist places in the mountains at the bottom of undisturbed, open rock slides that have cold air drainage.	East Rosebud Creek and Spread Creek – approx. 1 air miles from E Rosebud Allotment.	Low to Moderate	Low	June-early July	Through July	Musky-scented Perennial Forb	No Impact
Small yellow lady's slipper	*Cypripedium parviflorum*	3	G5	S2S3	2,520 – 6,200	Fens, damp mossy woods, seepage areas, and moist forest-meadow ecotones in valley to lower montane	Suspected - Historically Documented Stillwater Co. (State)– approx. 15 air miles	Low to Moderate	Low	May-June	July	Perennial Forb	No Impact
Giant helliborine	*Epipactis gigantea*	3	G4	S2	2,900 – 6,200	Streambanks, fens with springs/seeps, often near thermal waters	Bluewater Fish Hatchery – approx. 70 air miles	Low	Low	June – Early August	June – Early August	Perennial Forb	No Impact
Hiker's gentian	*Gentianopsis simplex*	3	G4	S1	4,460 – 8,400	Fens, meadows, and seeps, usually in areas of crystalline parent material,	Within East Rosebud - approx. 10 air miles	Low to Moderate	Low	July - August	July - August	Small Annual Forb	No Impact

[3] Scale of risk, per Region 1 Species at Risk Protocol: Type 1: Threatened, Endangered or Proposed (ESA); Type 2: Range-wide Imperilment; Type 3: Regional/State Imperilment

[4] and [4] The international network of Natural Heritage Programs employs a standardized ranking system to denote global (range-wide) and state status (Association for Biodiversity Information 2001). Species are assigned numeric ranks ranging from 1 (critically imperiled) to 5 (demonstrably secure), reflecting the relative degree to which they are "at-risk". 1 = Critically imperiled because of extreme rarity and/or other factors making it highly vulnerable to extinction; 2 = Imperiled because of rarity and/or other factors demonstrably making it vulnerable to extinction; 3 = Vulnerable because of rarity or restricted range and/or other factors, even though it may be abundant at some of its locations; 4 = Apparently secure, though it may be quite rare in parts of its range, especially at the periphery; 5 = Demonstrably secure, though it may be quite rare in parts of its range, especially at the periphery; T = Rank for subspecific taxon (subspecies, variety, or population); appended to the global rank for the full species, e.g. G4T3

[6]Potential of Occurrence rated as high, moderate, or low

[7] Proposed action incorporates design criteria (i.e., follow soil, water, and weed BMPs and SMZs) that results in Effects Determination. Determination made by Kim Reid, Custer National Forest Botany Coordinator.

Common Name	Scientific Name	Type[3]*	Global Rank[4]	State Rank[5]	*Eleva-tion (ft)*	Habitat	Closest known population	Potential of Occurr-ence[6]	Vulnerability to Project Effects	Flowering Period	Fruiting Period	Lifeform	Effects Determination – Proposed Action[7]
						in the montane and subalpine zones							
Beartooth goldenweed	*Haplopappus carthamoides var. subsquarrosus*	2	G4G5T2T3	S2	5,520 – 7,200	Grasslands and sagebrush steppe on sandy calcareous soils in the foothills and montane zones	Main Fk Rock Cr – 2 air miles	Low	Low	July - August	July - August	Perennial Forb	No Impact
Hall's rush	*Juncus hallii*	3	G5	S2	4,000 – 8,860	Moist to dry meadows and slopes from valley to montane	Gallatin NF – approx. 90 air miles	Low	Low	July - August	July - August	Perennial grass-like	No Impact
Mealy Primrose	*Primula incana*	3	G4G5	S2	Below alpine and sub - alpine habitat	Wet meadows, springs and shores, often where alkaline; calcareous bog meadows; wet meadows & quaking bogs; NOT found in alpine or subalpine areas..	Historically known - East Rosebud Lake - approx. 10 air miles	Low to Moderate	Low	May to June	Through July	Perennial Forb	No Impact
Threeranked humpmoss	*Meesia triquetra*	3	G5	S2	7850-10,500	Rich fens having surface waters with high pH and calcium concentrations. It can also be found in alkaline swampy birch and willow woods.	West Fork Rock Creek, -approx. 10 air miles	Low to Moderate	Low			Moss – Non-vascular plant	No Impact
Jove's Buttercup	*Ranunculus jovis*		G4	S2	7,500-9,600	Sagebrush grasslands to open forest slopes in the montane and subalpine zones.	Head of Crooked Cr.-Pryor Mtns. – approx. 90 air miles.	Low to Moderate	Low to None	April - June	April - June	Perennial Forb	No Impact

Common Name	Scientific Name	Type[3]*	Global Rank[4]	State Rank[5]	*Eleva-tion (ft)*	Habitat	Closest known population	Potential of Occurr-ence[6]	Vulnerability to Project Effects	Flowering Period	Fruiting Period	Lifeform	Effects Determination – Proposed Action[7]
Barratt's Willow	*Salix barrattiana*	3	G5	S1	6,800 - 10,500	Grows on boggy meadows, moist open hillsides in mountains, lakeshores, streambanks, rock slides, recent alluvial deposits. Soils range from very calcareous to very acidic.	Line Cr Plateau – approx. 10 air miles	None	None	July - August	July - August	Shrub	No Impact
Shoshonea	*Shoshonea pulvinata*	2	G2G3	S1	6,440 – 7,800	Open, exposed limestone outcrops, ridgetops and canyon rims, in thin rocky soils	Meeteetsee Spires – approx. 15 air miles	Low	Low to None	May - July	May - July	Perennial Forb	No Impact

The following figures show proximity of the known populations to the proposed treatment units. Purple lines indicate watershed divisions (6th code Hydrologic Unit).

Figure 2. General view of *known* populations and proposed Benbow treatment units. Looking South.

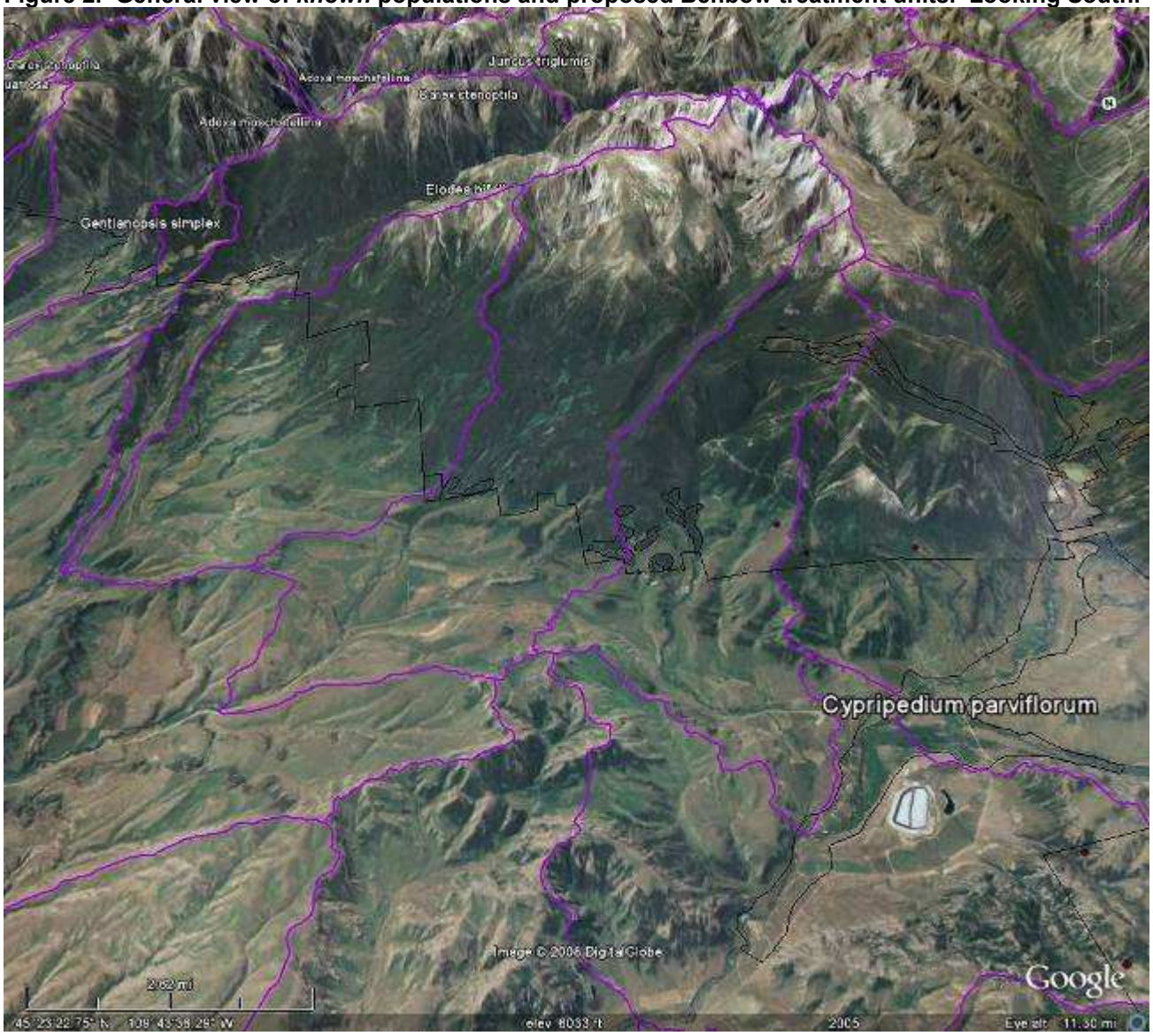
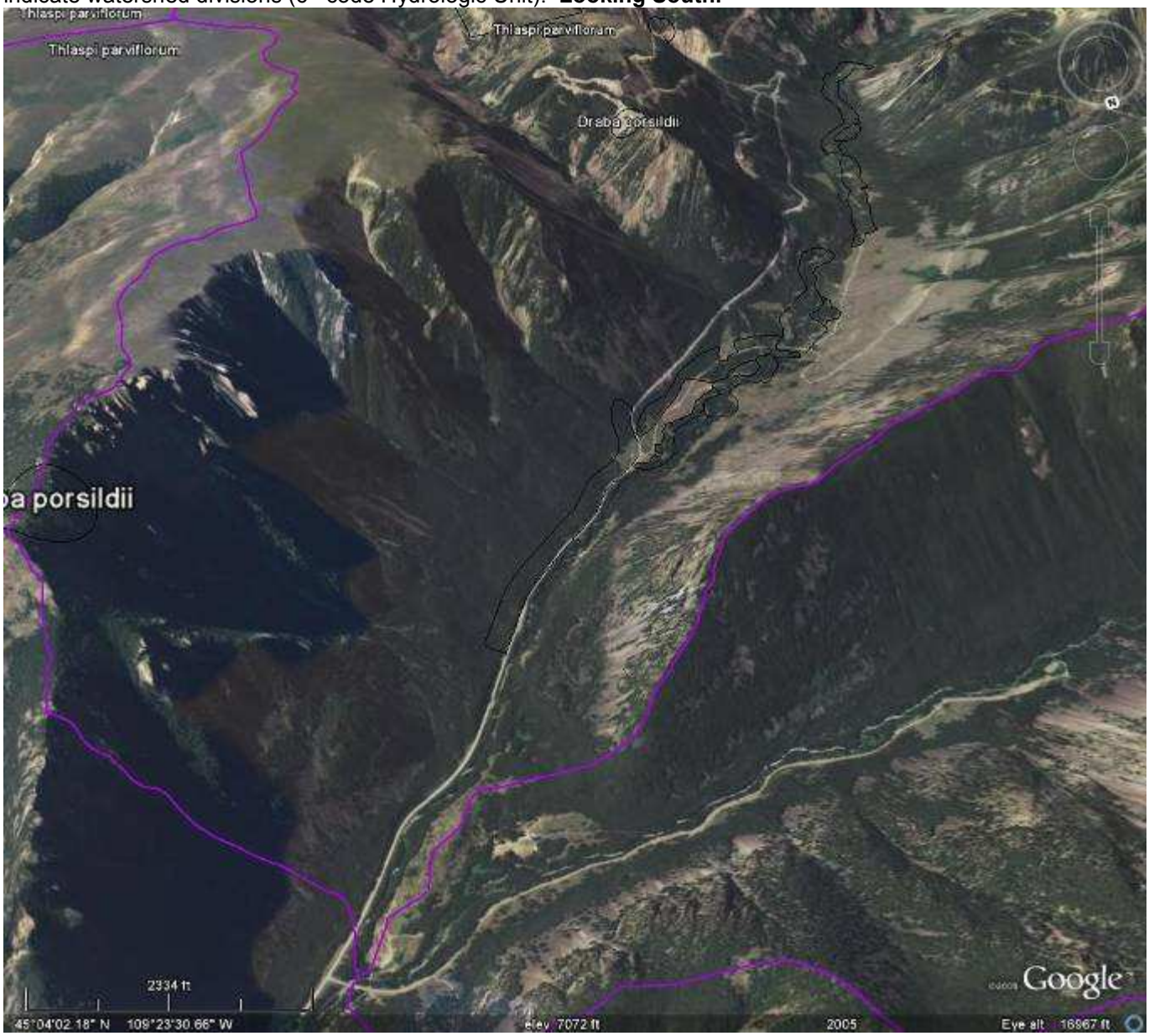


Figure 3. **General view of *known* populations and proposed Main Fk Rock Cr treatment units.** Purple lines indicate watershed divisions (6th code Hydrologic Unit). **Looking South.**



REGULATORY FRAMEWORK

Forest Plan Direction. The 1986 Custer National Forest Land and Resource Management Plan (Forest Plan) provides management guidance to natural resource managers within the framework of Congressional intent (36 CFR 217). As such, the Forest Plan provides land managers and the public a common understanding of anticipated commodity and amenity outputs from lands managed under the direction provided by the Forest Plan. The Forest Plan provides two levels of management direction for lands within the project area, Forest wide direction and management area specific direction. The project area is composed of Management Areas “T”, "G", “D”, “B”, and "M".

Management Area B emphasis is to maintain and improve the long-term diversity of rangelands. Management Area D emphasis is to maintain and improve the long-term diversity and quality of habitat for selected wildlife species. Additionally, there are inclusions of Riparian (Management Area M) throughout the project area amounting to less than one percent of the total area. The goal for this management area is similar to Management Area D and will provide for healthy, sustainable plant communities in the woody draws. Management Area G

emphasis is to provide for maintenance and improvement of a healthy diverse forest and as a source of wood products. Management Area T emphasis is to provide for Beartooth Scenic Byway characteristics.

The Custer Forest Plan provides limited forest wide management direction for threatened or endangered plant species. The Forest Plan provides general management direction (page 3) that indicates; "the goal for the management of Threatened and Endangered plant and animal species is to provide habitat that contributes to the recovery of the species". Page 17 of the Plan indicates that no federally listed threatened or endangered plant species occur on the National Forest units of the Custer National Forest at the time the Forest Plan was prepared (1986). Since that time, there continues to be no plants designated as Threatened or Endangered that occur within the Custer National Forest. Within the framework of the Custer Forest Plan, direction is given to manage for retention of habitat of unique plant species which include sensitive species (Forest Plan, p. 20 and Appendix VII). Specific management area standards and goals for management areas are silent on the topic of sensitive plant species.

Other Laws, Regulations, and Policy. Other laws, regulations, and policy pertaining to the U.S. Forest Service provide that lands held in federal ownership must be evaluated for the presence of and possible affects to threatened, endangered, and sensitive plant species. For instance, the National Forest Management Act (NFMA) directs that federal lands be managed for the optimum biodiversity that the land can provide. Additionally, NFMA indicates that "habitats for all existing native and desired non-native plants, fish, and wildlife species will be managed in order to maintain at least viable populations of such species". As a result of this and other laws, such as the Endangered Species Act, the Forest Service has been evaluating rare plant species via the sensitive species list formulated on a Region by Region basis. This sensitive species list is a list of known species that are currently not formally listed as Threatened and Endangered, but may be moving toward formal listing. The rationale for compiling the sensitive species list is to preclude formal listing through the modification of land management practices conducted on Forest Service lands if those land management activities may potentially lead to the formal listing of a particular plant species. The modification of land use or land management practices is intended to ensure continued viability of the potentially affected population. This policy is found in Forest Service Manual (FSM) 2670, specifically 2670.22 and 2670.32.

EFFECTS ANALYSIS METHODOLOGY

Many species are listed as sensitive for the Custer National Forest. Portions of the Custer Forest fall within various ecological settings, ranging from the Northern Great Plains, the Northern Great Basin, and the Northern Rocky Mountains. As a result of a review of existing information relative to species extent of distribution and ecological requirements, a list of sensitive plant species have been screened as to its potential habitat by district. As a result, not all Custer listed sensitive species can be found on all three districts. [8] Listed sensitive species with potential habitat on the Beartooth District were evaluated for inclusion in the biological findings of this assessment (see Table 1).

The analysis is based on known sensitive plant occurrences as provided by the Montana Natural Heritage Program (MNHP 2008), recent survey findings, and habitat potential or habitat/site characteristics (landtype, habitat type, aspect, and elevation). Information used came from data on file at the Custer National Forest, literature review (Beatty et. al. 2004; Ladyman. 2005, Lesica et. al., 1992, Lesica. 1995; Lyman. 2005; McCracken. 2005-2007; Mergen. 2006; Mincemoyer. 2006; MNHP. 2008; NatureServe. 2007; Rocchio and Anderson. 2006; Shelly. 1988; USDA. 1999; USDA, 2000; USDI. 2005; and WYNDD. 2008) and personal communications with resource specialists with knowledge of vegetation and travel management effects.

Cursory field surveys have been conducted within or adjacent to the project area by field crews, including Jeff DiBenedetto and Linda Spencer periodically over the last five years. I have spot surveyed much of the Main Fork proposed project area over the past 18 years. Plant surveys emphasized reconnaissance of habitats where sensitive plants might occur. These surveys were often associated with conducting proper functioning condition surveys in riparian areas, woody draw surveys, ground truth plots for satellite imagery, and upland plots. No new populations of sensitive plants have been found.

[8] USFS, 2008. Custer NF TES Plant Protocol.

Figure 4. Location of vegetation surveys 1999-2004 in the Benbow area.

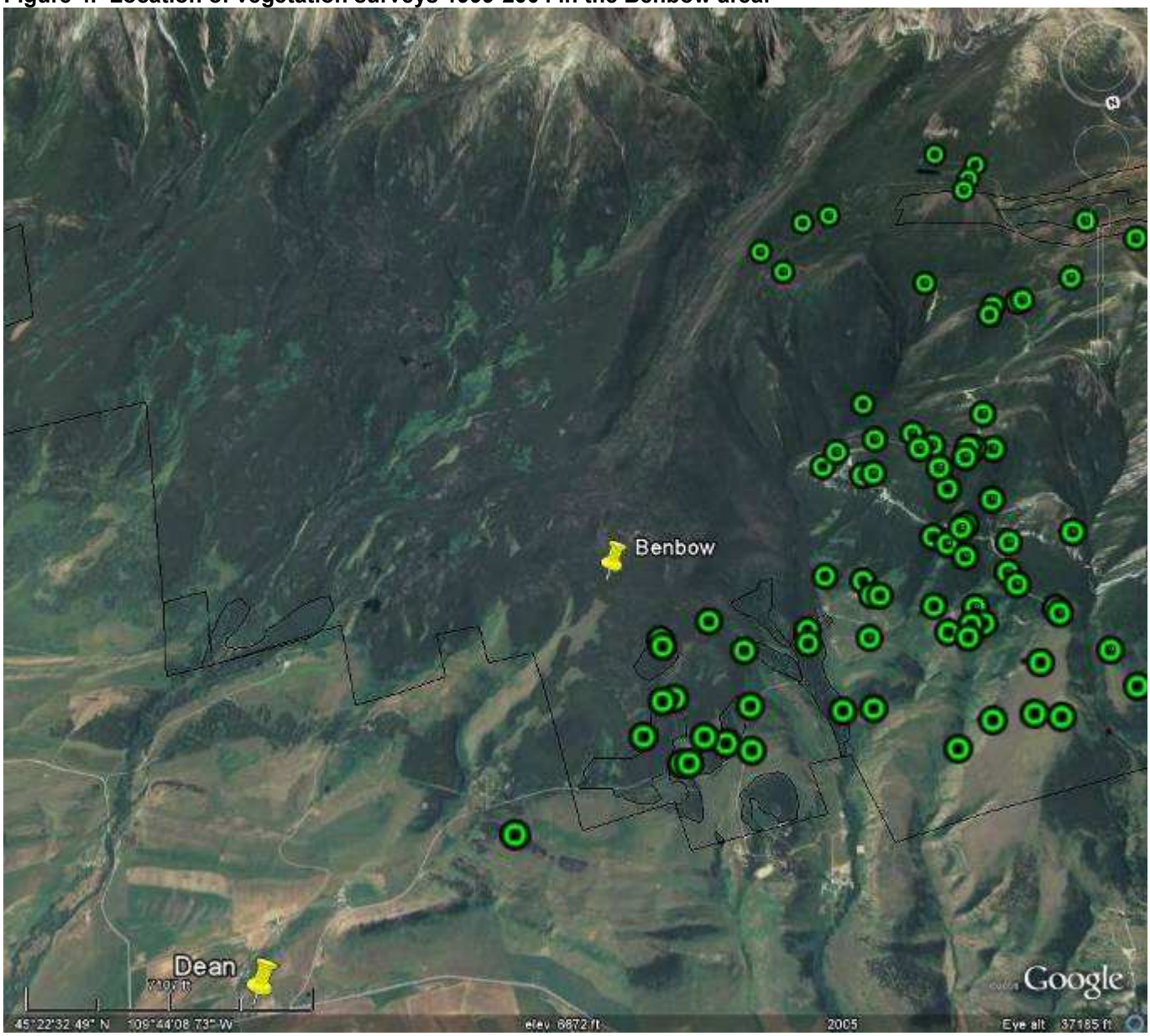
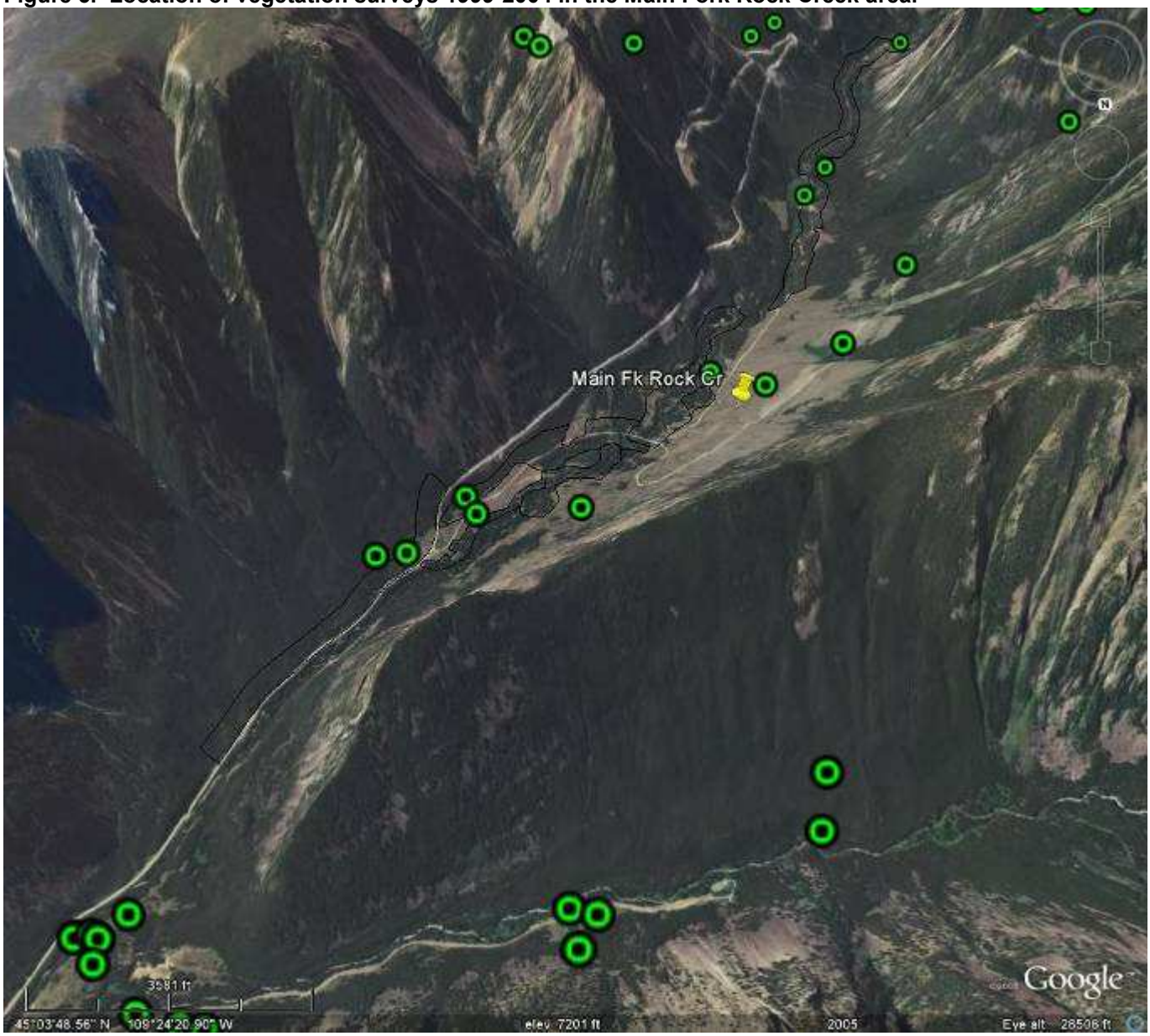


Figure 5. Location of vegetation surveys 1999-2004 in the Main Fork Rock Creek area.



The potential direct effects (plant mortality) and indirect effects (soil compaction and vegetation composition change - including weeds) could result from road and landing locations, burning, and equipment use. Direct and indirect vulnerabilities and exposures are evaluated (see Table 1) to make a biological assessment effects determination on each species. There are no known sensitive plant populations within the analysis area.

ENVIRONMENTAL CONSEQUENCES

DIRECT AND INDIRECT EFFECTS

There are no known threatened, endangered, or sensitive plant populations in or adjacent to the project area. The proposed project is designed to treat lodgepole pine forest, which is unsuitable habitat for many sensitive plant species. Since a reduction in timber canopy has already occurred as a result of the November 2007 natural blowdown event, removing all or a portion of the windthrown timber will have little additional influence on changes in shading understory vegetation. Practices such as using criteria set forth in streamside management zones (SMZs), noxious weed prevention practices, and soil/water conservation best management practices (BMPs) are incorporated.

Construction of new stream crossings, i.e., bridges, culverts or fords, is the only action that would have a direct effect to riparian resources. This would be due to minor vegetation disturbance that generally occurs during installation and removal of the structure. Temporary crossings are proposed for both skidding operations and log hauling. Log cribs would be used for skidding across two sites on perennial streams and up to seven sites on intermittent watercourses (Unit 1- Little Rocky Cr. and Unit 60- Fishtail Cr.). Two temporary skidder bridges, two temporary culverts and one improved ford are proposed at five sites on perennial streams (unit 1- Little Rocky Cr. and unit 60- Fishtail Cr.). Minor and temporary vegetation disturbance is anticipated for all log crib and bridge locations during installation and removal. Minimal vegetation disturbance and sediment generation is anticipated during salvage harvest operations. All crossings would meet the requirements of SMZ regulations, Montana Forestry BMP's, and MTDFWP 124 permit stipulations. All temporary crossing locations would be fully rehabilitated to ensure approaches are adequately drained, revegetated, stabilized and closed to future traffic.

Although adverse indirect effects are not anticipated from these proposed treatments, long-term beneficial effects are. Removal of blowdown and associated slash, combined with thinning to reduce green fuels would reduce the potential for high intensity/long duration fire in localized riparian areas, thereby reducing the magnitude of adverse impacts to streams, wetlands, floodplains, and overall water quality (see Hydrology Report).

Any unknown populations that might exist in the project area would have low vulnerability to proposed activities. Use of soil and water and weed BMPs, and following SMZ criteria are designed to minimize impacts. Proposed activities are not expected to impact individuals or habitat.

CUMULATIVE EFFECTS

Scope of the Cumulative Effects Analysis

The area chosen for the cumulative effects analysis is the Benbow and Main Fork Rock Creek Analysis Area watersheds (6th code hydrologic units). The reason for this area being selected is that the landscape is similar in geomorphic features within a hydrologic unit. Surrounding lands are primarily private lands managed for livestock use and will not be considered in detail in this analysis.

The majority of the Benbow treatment units occur in two watersheds and the Main Fork Rock Creek treatment units occur within one watershed (sixth level). The Benbow units are near the lower portions of their watersheds and the Main Fork units are near the mid to upper portions of its watershed (see Figures 2 and 3 above).

The temporal scale (time limits for past activities) selected for this project is from the 1950s to the present. This temporal timeframe captures shifts on the landscape due to reductions in the levels of livestock grazing. This grazing era had a significant impact on the project area and the subsequent management activities that resulted from this activity are within a timeframe where the impacts can overlap with the project.

In order to conduct a cumulative effects analysis, the alternatives considered under this Environmental Assessment must be considered in light of past, present, and reasonably foreseeable future projects (36 CFR 1508.6). For the purposes of this cumulative effects analysis, the following projects will be considered:

Table 3. Past, Present, Reasonable Foreseeable Activities

Past	Present	Reasonably Foreseeable
Livestock Grazing	Livestock Grazing – Benbow units only	Livestock Grazing-ongoing Benbow units only

Table 3. Past, Present, Reasonable Foreseeable Activities

Past	Present	Reasonably Foreseeable
Dispersed Recreation	Dispersed Recreation	Dispersed Recreation-ongoing
Developed Recreation – Main Fork Rock Creek only	Developed Recreation – Main Fork Rock Creek only	Developed Recreation – Main Fork Rock Creek only
Timber Sales		Timber Sales
Wildfires and Prescribed fire		Prescribed Fire
Weed treatment	Weed treatment	Weed treatment

Cumulative Effects Common to All Alternatives
Because direct and indirect effects to sensitive plant populations are not anticipated, there should be no cumulative effects to sensitive plant species. Activities that disturb vegetation and soils, such as utility corridors, temporary road building, etc. might occur in the future, but is not reasonably foreseeable with any sort of proposal in hand. Other activities that could affect sensitive plants include ongoing livestock grazing in the Benbow area, although the proposed activity units are not composed of primary range, but may present transitory range for a short period of time (10-15 years) until lodgepole regenerates and impedes livestock movement and forage production. Grazing activities are to mitigate any adverse effects during grazing project design. Implementation of any of the action alternatives considered in this environmental analysis would not be expected to contribute to significant cumulative effects.

Considering the past, present, and reasonably foreseeable future actions of cumulative effects the proposed action and existing situation are expected to maintain habitat for these species over the long-term.

CONCLUSION

Vulnerabilities outlined in Table 1, were given an adjective rating and evaluated to make a biological assessment effects determination for each species as displayed in the following table. Implementation of any alternative would not be anticipated to move any sensitive plant species within the project area toward federal listing under ESA.

Table 2. Effects Determination –

Common Name	Scientific Name	Effects Determination – Proposed Action[9]
Musk-root	*Adoxa maschatellina*	No Impact
Small yellow lady's slipper	*Cypripedium parviflorum*	No Impact
Giant helliborine	*Epipactis gigantea*	No Impact
Hiker's gentian	*Gentianopsis simplex*	No Impact
Beartooth goldenweed	*Haplopappus carthamoides var. subsquarrosus*	No Impact
Hall's rush	*Juncus hallii*	No Impact
Mealy Primrose	*Primula incana*	No Impact
Threeranked humpmoss	*Meesia triquetra*	No Impact
Jove's Buttercup	*Ranunculus jovis*	No Impact
Barratt's Willow	*Salix barrattiana*	No Impact
Shoshonea	*Shoshonea pulvinata*	No Impact

Interagency cooperation between the Forest Service and the U.S. Fish and Wildlife Service (USFWS), regarding proposed, threatened or endangered species is described in Section 7 of the Endangered Species Act. Definitions relating to "consultation" and "conference" are given in FSM Supplement 2600-90-6. Currently, no federally listed known or suspected Threatened or Endangered plant species or critical habitat occurs on lands managed by the Custer National Forest.

All alternatives are consistent with the Laws, Regulations, Policy, and Federal, Regional, State, and Custer Forest Plan. Selection of any alternative would be consistent with the regulatory framework relative to sensitive plants.

Unavoidable Adverse Effects. There are no unavoidable adverse effects to sensitive plant populations that are located within or adjacent to the project area. Implementation of any alternative would not be anticipated to move any sensitive plant species within the project area toward federal listing.

Conformance with 36 CFR 1508.27 Significance of Effects. The distinction between conducting an Environmental Assessment (EA) vs. and Environmental Impact Statement (EIS) hinges upon whether the

[9] Proposed action incorporates design criteria (i.e., follow soil/water/weed BMPs and SMZs) that results in Effects Determination. Determination made by Kim Reid, Custer National Forest Botany Coordinator.

environmental consequences anticipated as a result of Selected Alternative implementation will result in "significant" effects. Direction for conducting this "significance" test is found at 36 CFR 1508.27. In order to evaluate the possibilities for significant effects, both intensity and context of the proposal must be considered. Further defining information is found at 36 CFR 1508.27(a) and (b) that explains what intensity and context within the framework of "significance" means.

The Proposed Action within this project area must pass the "significance" of effects test, in order to support a categorical exclusion or a Finding of No Significant Impacts (FONSI) and, ultimately, effects documentation and disclosure in an appropriate NEPA document. The following discussion evaluates the significance elements that are associated with sensitive plant species, and provides a brief narrative of how the anticipated effects do not surpass the "significance" test.

Beneficial vs. Adverse Effects. As previously discussed under the Direct and Indirect Effects portion of this analysis, the action alternatives will have No Impact on sensitive plant populations and habitats.

Whether the Action is Related to Other Actions with Individually Insignificant but Cumulatively Significant Impacts. As previously discussed in this technical report, selection of any of the alternatives when considered with past, present, and reasonably foreseeable projects or activities would not be anticipated to contribute to significant cumulative effects.

The Degree to which the Action may Adversely Affect an Endangered or Threatened Species or its Habitat. As discussed in this sensitive plant technical report, adverse effects to designated sensitive plant species are not anticipated that would contribute towards federal listing or loss of viability. There are no designated threatened and endangered plant species that occur or that could potentially occupy the project area.

Management Recommendations. Design criteria of using soil and water conservation Best Management Practices, Noxious weed prevention practices, and use of criteria for activities within Streamside Management Zones will reduce potential impacts.

Recommended Mitigation. No mitigation is needed or recommended for the proposed action.

Recommended Monitoring. If sensitive plant populations are found during project implementation, monitoring of those populations should be accomplished and any potential adverse effects should be mitigated.

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