

# APPENDIX B - FOREST PLAN AMENDMENT #21

## Bitterroot National Forest Land and Resource Management Plan

November 2001

### Introduction

The Bitterroot National Forest Land and Resource Management Plan (Forest Plan) was approved in September 1987. Changes affecting the Forest Plan since that time have required periodic amendments to keep it current. This amendment applies only to the Burned Area Recovery Project and pertains to the following Forest Plan standards:

- Forest-wide snag retention standard.
- Forest-wide elk habitat effectiveness standard in Laird Creek.
- Forest-wide thermal cover standard in the Skalkaho-Rye Geographic Area.
- Coarse woody debris standards for several Management Areas.

The Burned Area Recovery Project and this amendment are designed to meet the Forest-wide and Management Area goals and objectives as described in the Plan. The relationships between this amendment and Forest Plan goals and objectives, as well as potential effects of this amendment are further described in the Burned Area Recovery Final Environmental Impact Statement (FEIS pages I-16 to I-20 and throughout Chapter IV).

### Changes to Forest Plan Standards

#### **Snags**

Forest-wide standard 2.e.(3) (FP page II-20) is clarified and amended for this project to read:

"Snags should be maintained within each Burned Area Recovery activity area at or above the levels specified in the following table and explanations:

**Table B-1 - Snag Standard**

VRU	Snags (average trees per acre)
2	2-5
3	4-12
4	10-15

- Distribution of retained snags will be irregular and clumped, include representation across size classes in the unit, but favor the largest trees.
- Snags retained in RHCA exclusion zones will be in addition to the snags per acre left in treatment units.
- In order to meet OSHA requirements for a safe work environment, retained snags must be grouped in helicopter harvest units. Groups may be retained in "lobes" or other concentrations within treatment units outside and contiguous with RHCAs or other areas adjacent to treatment units.
- Minimum snag levels are regardless of fire severity.

#### **Elk Habitat Effectiveness**

Forest-wide standard 2.e.(14) (FP page II-21) is amended for this project in the Laird Creek third order drainage (03m307-4) to read:

"Manage roads in the Laird Creek third order drainage to attain at least 45% elk habitat effectiveness."

#### **Big Game Winter Range**

The Forest-wide standard for big game winter range (FP ROD pg. 8) is amended for this project in the Skalkaho-Rye Geographic area to read:

"Winter range thermal cover will be maintained at or above four percent within the Skalkaho-Rye Geographic Area."

**Management Area Standards for Woody Debris (Soil Productivity and Non-game Species Habitat)**

Management Area standards

MA-1: 3.f.(4) – page III-6

MA-2: 3.f.(3) – page III-12

MA-2: 3.j.(2) – page III-13

MA-3a: 3.f.(3) – page III-18

MA-3c: 3.f.(2) – page III-32 are amended for this project to read:

“To maintain soil productivity and meet wildlife objectives, coarse woody debris should be maintained within each Burned Area Recovery activity area at or above the minimum levels identified in the following table and descriptive objectives.

**Table B-2 - Coarse Woody Debris Objectives**

VRU	Fires Severity	Coarse Woody Debris
2	Low	5 tons/acre
	Moderate / High	10 tons/acre
3	Low	20 tons/acre
	Moderate / High	20 tons/acre
4	Low	25 tons/acre
	Moderate / High	25 tons/acre

- These are minimum coarse woody debris amounts to be retained for a given VRU and fire severity. They are to be maintained at the treatment area (unit) level rather than on an acre-by-acre scale. To account for the natural variability and potential for each area, site-specific prescriptions will be developed, with appropriate interdisciplinary involvement, to specify the appropriate amount of CWD to leave over and above these minimums.
- Retain the recommended woody debris with material generally in larger size classes (greater than 4” in diameter) and well distributed across the treatment area (Graham et al., 1994 and Graham, personal communication 2001). Material greater than 4 inches in diameter and not consumed in the fires of 2000 can be included in the tonnage.
- Material should also vary by species and by size classes available across the treatment area.
- The coarse woody debris amounts are in addition to designated snags (dead trees retained for wildlife needs as described in Table B-1), snag replacement trees (live trees retained to provide snags in the future), stumps, woody material less than four inches in diameter, and logs placed on slope contour for post-fire erosion control.
- Material to be retained for coarse woody debris may or may not be felled to the forest floor. Coarse woody debris material may be left standing and allowed to fall naturally over time.

In areas of low severity burns, much of the pre-fire coarse woody debris is still present. If any additional coarse woody debris per acre is needed, dead/dying trees and/or green/live trees (coarse woody debris recruitment) may be used to achieve the minimums listed above.”

## **Amendment 22**

### **Goat Flat and East Fork of Bitterroot Research Natural Area**

#### **Establishment Record**

**Document in permanent Forest files.**

Amend 23



United States  
Department of  
Agriculture

Forest  
Service

Bitterroot National Forest

1801 N. First  
Hamilton, MT 59840  
406-363-7100

File Code: 1950-1

Date: July 18, 2002

Dear Interested Party:

Enclosed is a copy of the Decision Notice and Finding of No Significant Impact (FONSI) for the Slate/Hughes Watershed Restoration and Travel Management Project on the West Fork Ranger District, Bitterroot National Forest. For the reasons discussed in the Decision Notice and FONSI, I have decided to implement the actions as proposed.

This decision is subject to appeal pursuant to 36 CFR 215.7. The appeal period will begin the day after the legal notice appears in the Ravalli Republic.

For more information on this decision contact Jim Aronson or Tim Trotter at the West Fork Ranger District at 406-821-3269.

Thank you for your participation.

Sincerely,

LESLEY W. THOMPSON  
Acting Forest Supervisor

Enclosure



1300

**DECISION NOTICE  
AND  
FINDING OF NO SIGNIFICANT IMPACT**

**SLATE/HUGHES WATERSHED RESTORATION AND  
TRAVEL MANAGEMENT**

**USDA FOREST SERVICE  
WEST FORK RANGER DISTRICT, BITTERROOT NATIONAL FOREST  
RAVALLI COUNTY, MONTANA**

**I. Introduction**

Decision

I have decided to implement Alternative 1, the proposed action, as described in the Slate/Hughes Watershed Restoration and Travel Management Environmental Assessment (EA), on pages 4 and 5. Implementation of Alternative 1 includes watershed restoration activities, travel management activities, and a site-specific amendment to the Forest Plan.

Watershed restoration activities will include improving water drainage from roadbeds, road obliteration and de-compaction, seeding, planting trees and shrubs, and reducing motorized access to provide for re-vegetating and stabilizing the roadbeds. About 25.7 miles of road will be removed from the existing road system and the necessary rehabilitation measures implemented. These activities are identified in the Project File, item 4.3. Other activities relating to watershed and fisheries improvement are graveling road segments that are near streams (EA, Chapter III pages 14, 16-19), and controlling vehicle access at dispersed campsites to protect stream banks and riparian vegetation.

Travel management includes restricting motorized access on some roads and trails for the purpose of moving the area closer to the Forest Plan open road density standards for Elk Habitat Effectiveness, for public safety, and for resource protection while allowing reasonable public access. The changes in motorized uses for the roads in the area are shown on the attached table and map. This action will place additional travel restrictions on 22.5 miles of road. All system trails in the analysis area will remain in their current travel status with the exception of Trails 673, 606, 248, 56 (from the junction of Trail 601 to Trail 248), 400 and 103 in the Overwhich, Saddle Mountain and Piquett Mountain area. Portions of these trails will be closed to motorized use during the general hunting season (Oct. 15 to Dec. 1). Approximately 32 miles of trail will be affected by these restrictions. Closed roads may be opened for firewood gathering during dry periods as areas with dead wood concentrations are identified. All non-system roads and trails will

be designated closed to motorized use, and will be rehabilitated or physically closed where needed to mitigate resource damage.

I have also decided to construct about 1/4 mile of new trail for ATV and motorcycle access between roads 5706A and 5702 to provide a loop route. In addition, one half of the road surface on 4.3 miles of road no longer needed for resource management will be ripped and opened to ATV, motorcycle and snowmobile recreation opportunities from Dec. 1 to Oct. 15.

This proposal also includes closing an old mineshaft south of Elk Creek for public safety reasons (EA page 5).

I am approving a site-specific amendment to the Forest Plan elk habitat effectiveness (EHE) standard for five of the 24 third order drainages within the project area. This amendment would allow these five areas to continue to be managed at slightly less than the 50 percent numerical EHE standard prescribed in the Forest Plan. This will still improve on the current elk security within the area, maintain reasonable public access within the Slate/Hughes area, and will continue to support and achieve the overall Forest-wide elk objectives. Specifically, Forest-wide standard 2.e. (14)(FP page II-21) is amended, for this project only, to read: "Manage roads in the following third order drainages (TOD) to attain at least the listed elk habitat effectiveness: 40% EHE for TOD 01C462-1; 45% for TOD 01D463-1; 47% for TOD 01D464-1; 49% for TOD 01D464-3; and 37% for TOD 01D467-1.

This document outlines my rationale for approving the activities associated with the Slate/Hughes project. These management activities will reduce the amount of sediment being delivered to the streams in the area, improve the level of big game habitat effectiveness and security, reduce road maintenance needs and costs, and will help to implement the Bitterroot National Forest Plan.

I am the responsible official for this project. The rationale for my decision is discussed in Section V below. The scope of my decision is limited to watershed restoration, travel management, and associated activities. My decision is site-specific. It is not programmatic nor is it a management plan for the entire Slate/Hughes Area.

#### Decision Summary

In the EA I identified the specific decision to be made as a result of the analysis. My decision is to select Alternative 1. Several of the culverts that were identified during the data collection and scoping phase of this analysis as barriers for fish passage were selected for replacement in the Bitterroot Burned Area Recovery EIS and will likely be replaced in the next few years. Therefore, these culvert replacements will not be part of this decision. My decision is based on my review of the purpose and need to reduce the amount of sediment being delivered to the streams in the area, and the need to improve big game habitat effectiveness and security. My selection is also based on the comments from the public and the analysis of the impacts of the alternatives. My staff and I have

reviewed all the comments from the public and have considered those issues that are relevant to my decision (EA Appendix E).

## **II. Overview of the Decision Area**

### **Location**

The project area is located on the West Fork Ranger District in the Hughes Creek and Overwhich Creek drainages as well as a portion of the Slate Creek drainage. These drainages are east and southeast of Painted Rocks Lake.

### **Description of the Project Area**

This project is concerned with the existing road and trail systems as well as trails created by forest users that are not part of the planned and maintained system. Generally, the roads in the analysis area were constructed to access and remove natural resources or to access private lands. Mining exploration and extraction has occurred in the area, most extensively in the Hughes Creek drainage. The Overwhich trail was constructed to provide mining access and has since been used for foot, horseback, ATV and motorcycle access. The majority of the roads in this area were constructed to provide access for timber harvesting activities and the existing travel restrictions were implemented mostly to mitigate wildlife concerns associated with open road densities. Wide ranges of recreational activities that utilize the road system take place here. These include hunting, fishing, camping, hiking, mountain biking, cross country skiing, snowmobiling, motorcycle and ATV riding and sightseeing.

## **III. Desired Condition and Need for Action**

### **Introduction**

The Forest Plan, based on the various considerations addressed in the Final Environmental Impact Statement (FEIS), guides all natural resource management activities and establishes standards for the Bitterroot National Forest. The environmental assessment incorporates direction provided in the Forest Plan EIS, Record of Decision, and Forest Plan (1987). The Forest Plan delineates Management Areas (MA's) that respond to Forest goals and objectives, and provides management standards to meet those goals and objectives. Management areas 1, 2, 3a, 3b, 5 and 8a are included in the Slate/Hughes area. The goals of each management area and standards relating to transportation, wildlife, fisheries, recreation, soils and water and road system and related to this analysis are described below.

MA-1 Goals: Emphasize timber management, livestock and big game forage production, and access for roaded dispersed recreation activities and mineral exploration.

Assure minimum levels for visual quality, old growth, and habitat for other wildlife species.

Standards: Recreation - Manage for recreation activities associated with roads and motorized equipment.

*Wildlife and Fish* – Maintain elk habitat effectiveness through closures as specified in the Forest-wide Standards.

*Water and Soil* – Utilize watershed rehabilitation projects, such as stabilizing road cut or fill slope slumps, to repair problems.

*Road System* - Road density will be determined through transportation planning and the results will be reviewed by interdisciplinary teams and documented in project environmental analysis reports. In most cases the density should not average more than 6.6 miles per section on land types –40 and MN+40, and 3.8 miles per section on land type S40M60 in each third order drainage.

MA-2 Goals: Optimize elk winter range habitat using timber and other vegetation management practices. Access will provide for mineral exploration and roaded dispersed recreation activities. Provide moderate levels of visual quality, old growth, habitat for other wildlife species, and livestock forage.

Standards: Recreation – Manage for recreation activities associated with roads and motorized equipment. Off-road vehicle use will be controlled during critical periods on susceptible ranges such as high-use winter range, spring range, and densely roaded fall range.

*Wildlife and Fish* – Maintain elk habitat effectiveness through road closures as specified in the Forest-wide standards.

*Water and Soil* – Utilize watershed rehabilitation projects, such as road cut or fill slope slump stabilization, to repair problems.

*Road System* – Road density will be determined through transportation planning and the results will be reviewed by interdisciplinary teams and documented in project environmental analysis reports. In most cases the density should not average more than 6.6 miles per section on land types –40 and MN+40, and 3.8 miles per section on land type S40M60 in each third order drainage.

MA-3a Goals: Maintain the partial retention visual quality objectives and manage timber. Emphasize roaded dispersed recreation activities, old growth, and big-game cover. Provide moderate levels of timber, livestock forage, and big-game forage. Restrict road density where necessary to meet visual objectives but provide access as needed for mineral exploration.

Standards: Recreation – Manage to provide recreation opportunities associated with main access roads and fishing streams. Most of the area that can be roaded is already roaded. Off-road vehicle use will be restricted during critical periods on susceptible ranges such as high-use winter range, spring range, and densely roaded fall range.

*Wildlife and Fish* – Maintain elk habitat effectiveness through road closures as specified in the Forest-wide standards.



*Water and Soil* - Utilize watershed rehabilitation projects, such as road cut or fill slope slump stabilization, to repair problems.

*Road System* - Road density will be determined through transportation planning and the results will be reviewed by interdisciplinary teams and documented in project environmental analysis reports. In most cases the density should not average more than 5.5 miles per section on land type -40, 3.3 miles per section on land type MN+40, and 2.2 miles per section on land type S40M60 in each third order drainage.

MA-3b Goals: Manage riparian areas to maintain flora, fauna, water quality, and water-related recreation activities. Emphasize water and soil protection, dispersed recreation use, visual quality, and old growth. Provide low levels of timber harvest, livestock forage, and big-game forage on fisheries riparian areas, and moderate levels of timber harvest and forage on nonfisheries riparian areas. Roding in riparian areas will be restricted to meet water quality and fish objectives.

Standards: *Wildlife and Fish* – Maintain the elk habitat effectiveness standards of the surrounding management areas through road closures as specified in the Forest-wide standards.

*Water and Soil* – Utilize watershed rehabilitation projects, such as road cut or fill slope slump stabilization, to repair problems.

MA-5 Goals: Emphasize motorized and nonmotorized semi primitive recreation activities and elk security. Manage big-game winter range to maintain or enhance big-game habitat.

Standards: *Recreation* – Manage for recreation activities associated with roadless areas, including hiking, hunting, fishing, camping, motor biking, and snowmobiling.

The Travel Plan will identify the areas, trails and roads open for motorized vehicle use and the types of vehicles that are permitted. Motorized use will not be permitted where wildlife, adjacent wilderness, soil and water resources, or public safety are threatened.

Facilities and trails will be compatible with the semi primitive setting. Some trails constructed to accommodate off-road vehicle use.

*Road System* – Maintain road surface for public safety and to protect the environment.

*Soil and Water* – Trail improvement or construction will be implemented with emphasis on soil stability and stream protection.

MA-8a Goals: Manage at the minimum level for elk security, old growth, and habitat diversity; but protect timber, soil, water, recreation, range and wildlife and resources on adjacent management areas. Maintain existing uses and facilities.

Standards: Recreation – Maintain trails and roads that pass through these units for recreation use unless closure is required to meet other resource standards.

Wildlife and Fish – Maintain elk habitat effectiveness through road closures as specified in the Forest-wide standards.

Water and Soil – Utilize watershed rehabilitation projects, such as road cut or fill slope slump stabilization, to repair problems.

In addition to the Forest Plan, standards for fisheries are also contained in the Inland Fish Strategy (INFISH) Environmental Assessment and Decision Notice (USDA Forest Service, 1995). The Bitterroot Forest Plan was amended in August 1995, with the signing of the INFISH Decision Notice. INFISH is an aquatic conservation strategy that was developed by the Forest Service to protect resident native trout populations on federal lands.

### Existing and Desired Conditions

#### Existing Conditions for the Transportation System

About 206 miles of system roads are located in the assessment area with 83 miles open yearlong to all motorized vehicles. The remaining 123 miles of roads have either seasonal or yearlong motorized use travel restrictions in place. These restrictions were the result of past decisions, some related to wildlife concerns, others for the protection of the road surface while these roads were not being used for resource management purposes. Generally, the roads in the analysis area were constructed to access and remove natural resources or to access private lands.

In 1992 an intense rainstorm occurred in the Overwhich drainage. This event coupled with the fire that had previously occurred resulted in severe damage to road 5700 and several of its spurs. The access to the majority of this road was washed out and it has been used only for rehabilitation and reforestation purposes since. A portion of road 5703 that paralleled the south side of Overwhich Creek was also severely damaged in the event. It was closed to highway vehicles yearlong and open to ATV's and motorcycles seasonally before the damage occurred. This portion of the road has been removed from the road system and reconstructed for seasonal ATV and motorcycle access (Trail 674).

#### Desired Condition for the Transportation System

Where open road densities are high, impacts to Elk Security are reduced by restricting road use. An adequate transportation system that provides for vegetation and commodity management and diverse recreation opportunities is desired. Erosion control on all open and closed roads is desirable for watershed improvement and could involve stabilization, revegetation, resurfacing, cross draining and decommissioning. Sufficient funding to cover annual and deferred maintenance on all roads is desired.

### Existing Condition for Wildlife

Open road density directly affects big game security during the hunting season. Elk Habitat Effectiveness is also affected by open road densities as well as hiding and thermal cover. Forest Plan standards for open road densities are not met in seven third order drainages in this project area. The table below shows the miles of open road, open road density, Elk Habitat Effectiveness and the Forest Plan standard for each third order drainage.

<b>THIRD ORDER DRAINAGE</b>	<b>DRAINAGE AREA (M<sup>2</sup>)</b>	<b>MILES OPEN ROAD</b>	<b>OPEN ROAD DENSITY</b>	<b>CURRENT EHE (%)</b>	<b>F.P. STANDARD</b>
01B455-1	2.8	5.6	2.0	50	50
01B455-2	4.1	4.3	1.1	58	50
01C456-2	2.2	0	0	100	50
01C458-2	6.8	2.26	.3	85	60
01C461-1	2.6	.18	.07	95	50
01C461-2	2.1	.11	.05	95	60
01C462-1	2.5	6.9	2.8	40	50
01C462-2	3.6	6.0	1.7	53	50
01C463-1	.53	0	0	100	60
01C463-2	1.8	.66	.37	80	60
01C463-3	3.3	2.82	.85	57	50
01C462-3	2.6	1.1	0.4	80	50
01D405-1	3.9	.82	.2	90	60
01D459-1	1.9	1.2	.6	70	60
01D459-2	4.9	3.8	.8	65	60
01D463-1	1.67	4.3	2.6	45	50
01D464-1	2.67	6.3	2.4	47	50
01D464-2	3.7	13.3	3.6	35	50
01D464-3	1.9	4.3	2.2	49	50
01D464-4	.96	2.6	2.7	44	50
01D466-4	3.5	.17	.04	95	60
01D466-5	3.3	2.97	.9	63	50
01D467-1	1.2	3.7	3.1	37	50
01D467-4	3.7	.1	.02	95	60

### Desired Condition for Wildlife

Where open road densities are high, impacts to Elk Security are reduced by restricting road use during the general hunting season.

### Existing Condition for Watershed and Fisheries

The Bitterroot NF has designated the upper West Fork drainage as a "priority watershed" for the recovery and preservation of native trout species. The Slate Hughes analysis area comprises a major part of this priority watershed, and contains important habitat refugia

for bull trout and westslope cutthroat trout. Migratory and resident forms of both species occupy, spawn, and rear throughout the analysis area.

The Slate Hughes analysis area is home to one Sensitive fish species (the westslope cutthroat trout, *Oncorhynchus clarki lewisi*) and one Threatened fish species (the bull trout, *Salvelinus confluentus*). In general, fish habitat is in good condition in the Hughes, Overwhich, and Slate Creek watersheds. However, there are some areas where roads contribute increased amounts of sediment, particularly in the lower halves of the three watersheds where road densities are higher. The two areas where roads create the most problems for fish are along road segments that closely encroach on streams, and at road stream crossings. Impacts to habitat that occur along these two areas include: (1) increased sediment input; (2) losses of shade on the stream, which depending on magnitude and location, can contribute to warmer water temperatures; (3) localized reductions in woody debris recruitment to the stream; (4) straightening of the stream channel which causes higher velocities and reductions in habitat complexity; (5) separation of the stream from its floodplain; and (6) easier human access, which increases the number of fish lost to angling; and (7) the creation of fish passage barriers at road culverts.

The fish-bearing streams in the Hughes, Overwhich, and Slate Creek watersheds contain a total of about seven miles of encroached road, and 25 road stream crossings on Forest Service land, a relatively small number considering the large size of the analysis area and the large number of fish-bearing streams (33) in those watersheds. The number of road stream crossings on the non-fish-bearing intermittent tributaries is much higher (308). The stream reaches that are affected the most by road encroachment include the lower several miles of Hughes, Overwhich, Slate, and Mine Creeks (a major tributary to Hughes Creek). The following table summarizes road densities, road densities within 300 feet of streams, and road stream crossings for the Hughes, Overwhich, and Slate Creek watersheds.

Watershed	NRCS 6 <sup>th</sup> Code HUC	Road Density (BNF only)	Road Density (entire watershed)	Road Density within 300' of Streams (BNF only)	Road Density within 300' of Streams (entire watershed)	# Road Stream Crossings (BNF only)	# Road Stream Crossings (entire watershed)
Slate	0106	0.8	0.8	0.10	0.11	18	18
Hughes	0103	1.3	1.5	0.17	0.20	151	166
Overwhich	0104	1.5	1.8	0.21	0.23	164	172

The culvert fish barriers in the Hughes, Overwhich, and Slate Creek watersheds have already been identified in the Bitterroot Burned Area Recovery FEIS, and are planned for replacement over the next couple of years. For that reason, we are not proposing to fix culvert barriers in this project.

## Desired Condition for Watershed and Fisheries

The key benefits to the fishery to be gained by this project are to improve watershed health (by reducing road densities and the number of road stream crossings), and reduce the amount of sediment that is added by the road network at stream crossings and encroached segments.

## Vegetation

### Existing Condition for Noxious Weeds

Spotted knapweed is common throughout the project area, and is currently affecting the ecological health on several hundred acres of grassland and open ponderosa pine habitat important for plant diversity and wildlife forage. Spotted knapweed along the Jew Mountain ATV trail is beginning to spread into some Idaho fescue grasslands. Populations of goatweed have also been found along the Hughes Creek Road. Many of these areas will be treated as specified in the 1998 Noxious Weed Environmental Assessment. More of the analysis area was surveyed for weeds in 1998 and 1999. Two infestations of "new weeds" were located at this time: a small population of blue thistle on a road just south of Jew Mountain and a small population of sulfur cinquefoil at the mouth of Hughes Creek.

The road system is a vector for introducing exotic plant species and noxious weeds into the area. Weed seed can enter an area attached to the undercarriage of vehicles and can be deposited along the road.

### Desired Condition for Noxious Weeds

The 1987 Bitterroot National Forest Plan's Forest-wide management goal is to "control noxious weeds to protect resource values and minimize adverse effects on adjacent private land" (pg. II-3). Forest management standards are the same for all Management Areas within the Forest; they state: "the primary means of preventing, containing, or controlling noxious weeds would be through vegetative management practices and by the use of biological agents such as insects, rusts, molds and other parasites on host plants. However, herbicides may be utilized to provide short-term protection on specific sites, after appropriate environmental analysis."

A recent supplement to the Forest Service Manual (FSM 2080) implements an Integrated Weed Management approach for the control of noxious weeds on National Forest System lands in Region One. Included in this supplement are requirements and recommendations for noxious weed management when conducting ground disturbing activities. In order to prevent weed establishment one of the required objectives is to: "Revegetate all disturbed soil, except the travel way on surfaced roads, in a manner that

optimizes plant establishment for that specific site, unless ongoing disturbance at the site would prevent weed establishment. Use native material where appropriate.”

#### Existing Condition for Sensitive Plants

This area contains a diversity of plant life that includes several plants rare in the state of Montana. These species include two species of Penstemon found in adjacent drainages (Overwhich and Hughes Creek). Payette's penstemon (*Penstemon payettensis*) is found in the Overwhich Creek drainage and Lemhi penstemon (*P. lemhiensis*) is found in the Hughes Creek drainage. Both of these species are regional endemics, found only in southwestern Montana and central Idaho and there may be instances where they may hybridize. The Slate-Hughes area is the only place on the Bitterroot Forest where the two species are known to occur in such close proximity.

Other rare species found in the Slate-Hughes area include hollyleaf clover (*Trifolium gymnocarpon*); a species known only from the Painted Rocks area of the Forest, dwarf onion (*Allium parvum*); Rocky Mountain paintbrush (*Castilleja covilleana*); and candystick (*Allotropa virgata*).

#### Desired Condition for Sensitive Plants

The desired condition for sensitive plants is to ensure that management of lands, water, biota and people provide environmental conditions and trends that contribute to long-term viability of these as well as all native species. Included in the management of sensitive plant species is control or containment of noxious weed populations, as long as these activities don't negatively impact sensitive plant populations.

#### IV. Summary of Alternatives Considered

**Alternative 1 (proposed action):** Watershed restoration activities would include improving water drainage from roadbeds, road obliteration and de-compaction, seeding, planting trees and shrubs, and reducing motorized access to provide for re-vegetating and stabilizing the roadbeds. Other activities relating to watershed and fisheries improvement include graveling road segments that are near streams, and controlling vehicle access at dispersed campsites to protect stream banks and riparian vegetation.

The travel management proposal includes restricting motorized access for the purpose of bringing the area closer to Forest Plan open road density standards for Elk Habitat Effectiveness while allowing for reasonable access, and for public safety. This alternative includes a site-specific amendment to the Forest Plan that modifies the elk habitat effectiveness standard for 5 third order drainages in the assessment area.

**Alternative 2:** This alternative includes the same watershed restoration activities as the proposed action. Additional travel restrictions would be implemented in order to meet the open road density standards for Elk Habitat Effectiveness described in the Forest Plan.

**Alternative 3:** This alternative includes the same travel restrictions as in Alternative 1 as well as the site-specific amendment to the Forest Plan described in Alternative 1. In addition to the watershed restoration activities proposed in the Alternatives 1 and 2, all culverts remaining in road 5700 and its spurs would be removed. These roads would also be ripped and/or re-contoured to slope to allow for water infiltration and the establishment of vegetation. These actions would take place on the section of road 5700 and its spurs starting about ¼ mile beyond the existing gate at the junction with road 5699.

**Alternative 4 (no action):** The National Environmental Policy Act (NEPA) and the National Forest Management Act (NFMA) require this alternative. This alternative describes what environmental effects would happen to the existing condition if no activities were to occur. This alternative provides a baseline for comparing alternatives and predicting environmental effects.

## **V. Rationale for the Decision**

I will now discuss the activities to be implemented in my decision in greater detail and the rationale for my decision. In coming to this decision I have reviewed the Slate/Hughes Watershed Restoration and Travel Management EA, including the effects analysis for the alternatives. I have also taken into consideration comments from the public, other agencies, and Forest Service personnel made during the scoping period and 30-day comment period, and during the meetings with the public on this project. I have also discussed the project activities with ID Team members.

I have decided to implement Alternative 1 because it provides for reasonable public access while addressing the purpose and need for action. The criteria I used in arriving at my decision on the project are: 1) Meeting the purpose and need for action; 2) Consideration of the issues, including comments from the public and other agencies; and 3) How well the project will implement the Bitterroot Forest Plan.

### **1) Meeting the Purpose and Need for Action**

The purpose and need is to reduce the amount of sediment being delivered to the streams in the area and to improve the level of big game habitat effectiveness and security.

Alternative 1 does meet the purpose and need. It provides for the reduction of sediment delivery into the streams by implementing restoration work in the areas identified by the Watershed Improvement Needs survey conducted in 1998. This alternative also

improves the level of big game habitat effectiveness and security by controlling motorized access in areas where open road densities are high while allowing for reasonable access during the big game hunting season.

Alternative 2 does meet the purpose and need. This alternative provides for the reduction of sediment delivery into streams as in Alternative 1. The travel management portion of this alternative would reduce the access in all third order drainages to levels that would meet the Elk Habitat Effectiveness levels that are specified in the Forest Plan. However, after careful review of the access restrictions that would be implemented under this alternative, I do not believe that this alternative provides for reasonable public access.

Alternative 3 also meets the purpose and need. The travel management portion of this alternative improves the level of big game habitat effectiveness and security as in Alternative 1. This alternative will reduce sediment delivery into streams as in Alternatives 1 and 2 as well as removing the culverts remaining in road 5700 and its spurs. These roads would also be ripped and/or re-contoured to slope to allow for water infiltration and the establishment of vegetation. These actions would take place on the section of road 5700 and its spurs beyond the existing gate at the junction with road 5699. The access restrictions associated with this alternative would be the same as those of Alternative 1. In considering this alternative I studied the condition of road 5700 and its spurs in relation to their stability and also the costs that would be associated with delivering heavy equipment to the site due to the existing washouts. My decision is that these roads will not be ripped and/or re-contoured and we will continue to monitor these roads and take appropriate action when warranted.

Alternative 4 (no action) does not meet the purpose and need. This alternative does not reduce sediment delivery into the streams and does not improve the level of big game habitat effectiveness and security.

## 2) Consideration of issues, including comments from the public and other agencies

Scoping for this proposal began in May of 2000. Public comment was solicited by sending letters describing the proposed projects to groups and individuals who had expressed an interest in this project. A legal notice was placed in the local newspaper to notify other interested parties of this proposal and to give them an opportunity to participate. Forest Service personnel representing Water Quality, Fuels and Fire, Forest Products, Silviculture, Vegetation, Cultural Resources, Wildlife, Fisheries, Transportation Systems and Resources (mining, minerals, recreation, range) were also consulted. As a result, three alternatives to the Proposed Action were developed to respond to public as well as internal comment. The Environmental Assessment was completed in May of 2002 and sent to the interested parties allowing 30 days for comment. A legal notice was also placed in the local newspaper to notify other interested parties of the release of this assessment and to give them an opportunity to comment. We received nine (9) responses from groups and individuals with comments specific to this assessment. In addition, two (2) letters that were received by the Forest containing



comment on a wide range of issues relating to travel management were also considered. These 11 responses yielded 163 comments that were identified and addressed by the Interdisciplinary Team. I have considered these comments and my responses to them are contained in the Environmental Assessment in Appendix E.

### 3) Consistency with the Forest Plan

The Forest Plan delineates Management Areas (MA's) that respond to Forest goals and objectives, and provides management standards to meet those goals and objectives. Management Areas 1, 2, 3a, 3b, 5 and 8a are included in this area. The goals of each management area and standards relating to transportation, wildlife, fisheries, recreation, soils and water and road system are described in the Slate/Hughes Watershed Restoration and Travel Management Environmental Assessment on pages 2 through 4. All action alternatives are responsive to these goals, standards and objectives in varying degrees.

Alternatives 1 and 3 would not meet the numerical Forest Plan standards for Elk Habitat Effectiveness in five of the 24 third order drainages. These alternatives would improve elk security in the area and continue to support and meet the Forest-wide elk objective (EA pg. 26). Therefore I believe this is a reasonable trade-off for the higher level of public access permitted in these alternatives and supports my decision with Alternative 1 to amend the Plan to allow EHE to be maintained at the existing lower levels in this small portion of the project area.

Alternative 2 would meet Forest Plan Standards for Elk Habitat Effectiveness in all third order drainages, but I believe that the travel restrictions associated with this alternative would not provide for reasonable public access into the Hughes Creek and Overwhich Creek drainages. This alternative would not allow access to trailheads in these drainages and access would be limited to the drainage bottoms during the general hunting season. Since Forest Plan elk objectives can continue to be met without such austere restrictions, I choose Alternative 1 instead.

Alternative 4 does not respond to Forest goals and objectives as no action is taken under this alternative. It would not have met the Forest Plan elk habitat effectiveness standard in seven of the 24 third order drainages.

### Summary

After I reviewed the alternatives in light of the decision criteria, public comment and the effects analyses, I have decided to implement Alternative 1. The action alternatives all meet the purpose and need as stated in the EA to varying degrees. Alternatives 1 and 2 implement the same level of watershed improvements while Alternative 3 includes additional work on the south side of Overwhich Creek. However, the need for this additional work is not apparent and the cost of delivering the heavy equipment to the area is likely to be prohibitive. I find that Alternative 4 did not meet the purpose and need for

action as stated in the EA. The watershed improvement needs that have been identified, and the travel management necessary to provide big game security would not be implemented. While alternative 2 best meets Forest Plan standards for Elk Habitat Effectiveness, it does not provide for what I consider to be reasonable public access into the area during the general hunting season with access and hunting opportunities being generally limited to the bottoms of the drainages. Alternatives 1 and 3 both improve the Elk Habitat Effectiveness to the same level and require a Forest Plan amendment for implementation as they would not meet Forest Plan standards in 5 third order drainages. These alternatives do however improve Elk Habitat Effectiveness and security over the present levels while allowing for access to trailheads and ridges during the general big game hunting season. I believe that Alternative 1 is the best alternative for implementing the Forest Plan as amended and for meeting the needs of the public. This alternative represents a balanced approach for both motorized and non-motorized recreation activities while protecting the natural resources present.

## **VI. Finding of No Significant Impact**

Provisions of 40 CFR 1508.27(b) indicate project significance must be judged in terms of the project's context and intensity. Based on a review of the provisions, I determine it is not necessary to prepare an environmental impact statement for this project. My rationale includes:

1. **Context:** The effects of the proposed project are localized, with implications for only the immediate area. Cumulative effects of past management, combined with the current proposal, and reasonable foreseeable future actions are displayed in the Slate/Hughes Watershed Restoration and Travel Management EA and the project file. These effects were considered in my determination. Alternative 1 with a site-specific amendment is consistent with the direction, standards, and guidelines outlined in the Bitterroot Forest Plan, Final EIS, and Record of Decision, as amended by INFISH and the Off-Highway Vehicle decision.
2. **Intensity:** The intensity of activities in the selected alternative are outlined below:
  - a. **Impacts that may be both beneficial and adverse:** I considered beneficial and adverse impacts associated with the alternatives as presented in Chapter IV of the EA and in the project file. These impacts are within the range of effects identified in the Forest Plan. The overall impact of the selected alternative will be beneficial, with no significant adverse impacts. Impacts from Alternative 1 are not unique to the Slate/Hughes Watershed Restoration and Travel Management project. Previous projects involving similar activities have had non-significant effects. On this basis, I conclude that the specific and cumulative adverse effects of Alternative 1 are not significant.

- b. **The degree to which the proposed action affects public health or safety:** I have considered the effects of this project on public safety and health and have determined that Alternative 1 will improve these in the long term. Road maintenance funding that would normally be spent on the roads that will be removed from the system or placed in a lower operational maintenance level, will be available for the maintenance of the remaining roads. Existing slumps, seeps and ineffective closures that may currently be unsafe, will be corrected. Any management activity that alters normal traffic patterns will be mitigated with appropriate warning and/or precautionary signing and temporary travel restrictions.
- c. **Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas:** Alternative 1 will not affect any unique geographic areas, historic features, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas. Based on the information in the EA and project file, I conclude there will be no effect on any unique characteristics of the area.
- d. **The degree to which the effects on the quality of the human environment are likely to be highly controversial:** The anticipated effects associated with the implementation of Alternative 1 are disclosed in the Environmental Assessment in Chapter IV. The basic data and relationships are sufficiently well established in the respective sciences for me to make a reasoned choice between the alternatives, and to adequately assess and disclose the possible adverse environmental consequences. The effects on the quality of the human environment are not likely to be highly controversial.
- e. **The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks:** Alternative 1 is similar to many past actions on the Bitterroot National Forest. Based on the results of past actions and technical and professional insight and experience, I am confident that we adequately understand the effects of watershed restoration and travel management on the human environment. There are no unique or unusual characteristics about the area or selected alternative that would indicate an unknown risk to the human environment (see Chapter IV of the EA).
- f. **The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration:** This project is similar to other watershed restoration and travel management projects on the Bitterroot National Forest and does not set a precedent.

- g. **Whether the action is related to other actions with individually insignificant but cumulatively significant impacts:** The effects from the watershed restoration and travel management activities, when combined with other past, present, and reasonably foreseeable future activities are not expected to have any significant cumulative effects. The selected alternative will have minor specific cumulative effects when added to the existing situation. I looked at the potential cumulative effects discussion in Chapter IV of the EA and found that the cumulative effects from this project would not be significant. With the implementation of the project and project specific mitigation EA pages (12 and 13) there will be no cumulative significant effects.
- h. **The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historic resources:** The proposal meets federal, state, and local laws for protection of historic places. As described in the EA and the project file, historic places have been identified within the analysis area, but will not be affected by project activities.
- i. **The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973:** The Biological Assessments prepared for this project describes the findings for threatened and endangered species. The Biological Evaluation for threatened wildlife species concludes that there will be "No Effect". The Biological Assessment and Evaluation for "Listed" fish species concludes that the project will "Not likely to adversely affect" bull trout. The U.S. Fish and Wildlife Service concurs with this determination.
- j. **Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment:** The proposal meets Federal, State, and local laws for air and water quality, streamside management, riparian areas, cultural resources, and threatened and endangered species. It meets National Forest Management Act requirements, National Environmental Act disclosure requirements, and all other Federal, State, and local laws.

Based on these factors, I conclude that there will be no significant cumulative impacts from implementing the Slate/Hughes Watershed Restoration and Travel Management project as described in Alternative 1.

## VII. Findings Required by Law, Regulation, and Agency Policy

My decision is consistent with all laws, regulations, and agency policy. Findings required by major environmental laws are summarized below. Compliance with other laws, regulations, and policies are listed in the EA, the project file, and Forest Plan.

### National Forest Management Act (16 U.S.C. 1600 et Seq.)

The National Forest Management Act (NFMA) provides that forest plans "shall be amended in any manner whatsoever after final adoption and after public notice, and, if such amendment would result in a significant change in such a plan, in accordance with subsections (e) and (f) of this section and public involvement comparable to that required by subsection (d) of this section" (16 USC 1604(f)(4)). The Secretary of Agriculture's implementing regulation indicates the determination of significance is to be "based on an analysis of the objectives, guidelines and other contents of the forest plan". The Forest Service has issued guidance for determining what constitutes a "significant amendment" under NFMA. This guidance, in Forest Service Handbook 1909.12, identifies four factors to be used when determining whether or not a proposed change to a forest plan is significant. These factors are: timing; location and size; goals, objectives, and outputs; and management prescriptions.

**Timing:** The site-specific amendment will become effective immediately. The management activities that will occur as a result of this amendment are planned to begin in August 2002.

This amendment is not significant in terms of the timing of overall changes in the Forest Plan. Revision of the Forest Plan is anticipated to begin in 2003. As stated in FSH 1909.12, Chapter 5.32: "the later the change, the less likely it is to be significant for the current forest plan." This amendment is not significant or incompatible with the upcoming revision plans.

**Location and Size:** The amended standard applies only to the management practices selected in this decision. The amended standard for elk habitat effectiveness applies to five third order drainages (01C462-1, 01D463-1, 01D464-1, 01D464-3, 01D467-1), totaling 6,360 acres or 15% of the analysis area and 0.4% of the Bitterroot National Forest.

**Goals, Objectives and Outputs:** The amended standard for this project does not preclude the Forest from attaining the EHE standard as described in the future. This area meets, and will continue to meet after the implementation of Alternative 1, the elk related goals and objectives of the Forest Plan.

**Management Prescription:** The Forest Plan amendment is site-specific to the Slate/Hughes project. It does not apply to future decisions. The project does not change the desired future condition, objectives, or anticipated goods and services to be produced.

This amendment does not change the management area allocations or the basis for those allocations.

**Conclusion:** Based on a consideration of these five factors and considering the Bitterroot Forest Plan in its entirety, I have determined that this amendment is not a significant amendment under the National Forest Management Act implementing regulations [CFR 219.10(f)]. This amendment generally maintains or furthers then related Forest Plan goals and objectives.

The National Forest Management Act (NFMA) and accompanying regulations require several specific findings be documented at the project level. I reviewed Alternative 1 with the ID Team and documented the following findings:

1. **Consistency with the Forest Plan (16 U.S.C. 1604(i)):** The Forest Plan set management direction for the Bitterroot National Forest by establishing forest-wide goals, objectives, standards and guidelines. The Plan also establishes goals, standards and guidelines for individual management areas. Implementing projects consistent with this direction is how the Forest moves toward the desired condition described in the Forest Plan. Forest Plan direction provides the sideboards for project planning. In addition, NFMA requires all resource plans and projects are consistent with the Forest Plan (16 U.S.C. 1604(i)). Pages 2 through 4 of the EA highlight the Forest Plan and management area goals and standards that are applicable to the Slate/Hughes Watershed Restoration and Travel Management project. This project is consistent with the Bitterroot National Forest Plan, as amended. Alternative 1 will contribute toward reaching Forest Plan goals and objectives.
2. **Suitability for Timber Production:** This project is not concerned with timber production. This project is in full compliance with NFMA regulations concerning this item.
3. **Clearcutting and Even-aged Management:** This project is not concerned with timber production. This project is in full compliance with the NFMA regulations concerning this item.
4. **Vegetation Manipulation:** All proposals involving vegetation manipulation of tree cover for any purpose must comply with seven requirements found in 36 CFR 219.27(b). Vegetative manipulation associated with this project is designed to establish vegetation within the road prisms of roads that are to be decommissioned, otherwise restricted to travel, or to establish vegetation on user created trails and in dispersed camping areas. This project is in full compliance with NFMA regulations concerning this item.

5. Sensitive Species: Federal law and direction applicable to sensitive species include NFMA and the Forest Service Manual. The Regional Forester approved a list of sensitive plants and animals for which population viability is a concern. In making my decision, I considered the effects on all sensitive species listed as possibly occurring on the Bitterroot National Forest and in the project area. I reviewed the analysis of the projected effects on all sensitive species that may possibly occur in the analysis area. Based on the available information on the distribution, presence or absence for the project area, habitat requirements and management strategies for these species, as well as the project design and location, implementation of the project would have no adverse impact on any sensitive plant or animal species. I concur with the finding documented in the EA and biological evaluations.

#### The Clean Water Act and State Water Quality Standards

Alternative I will protect beneficial uses including cold-water fisheries. In the bull trout BA, a "Not likely to adversely affect" determination was made. These beneficial uses will be maintained as a result of the application of general and RCHA's and RMO's as described in INFISH, as well as other protective design features and site-specific review of existing conditions. The project will not adversely affect beneficial uses of Slate, Overwhich and Hughes Creeks, and complies with the Clean Water Act and applicable State water quality laws.

#### The Endangered Species Act (16 U.S.C. 1531 et. Seq.)

This project is in full compliance with the Endangered Species Act. In accordance with Section 7(c) of the Endangered Act, as amended, biologists prepared biological assessments addressing potential impacts to federally listed animals. There are no federally listed plants on the Bitterroot National Forest. The analysis concluded that this project would have "no effect" on grizzly bear, bald eagle, gray wolf, and the Canada lynx.

#### National Historic Preservation Act

The project is in full compliance with the National Historic Preservation Act. Cultural resource surveys have been completed for the project area. No known cultural resources will be impacted by the selected alternative. The results of the survey were sent to the Montana State Historic Preservation Office as part of our consultation with them. They determined that the project would have no effect on any eligible properties.

## Environmental Justice

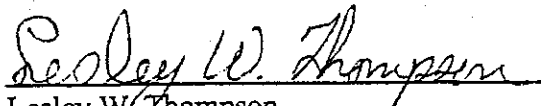
The selected alternative was assessed to determine whether it would disproportionately impact minority or low-income populations in accordance with Executive Order 12898. No impacts to minority or low-income populations were identified during the scoping or the effects assessment.

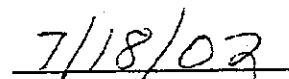
## VIII. Appeal Provisions and Implementation

This decision is subject to appeal pursuant to 36 CFR 215.7. As stated in 36 CFR 215.11, an appeal may be filed by any person or entity that has provided comment or otherwise expressed interest in a particular proposed action by the close of the comment period specified in 36 CFR 215.6. A written appeal must be submitted within 45 days after the date the notice of the decision is published in the Ravalli Republic Newspaper to:

USDA Forest Service, Northern Region  
ATTN: Appeals Deciding Officer (RFO)  
P.O. Box 7669  
Missoula, Montana 59807

Appeals must meet content requirements of 36 CFR 215.14. If no appeal is received, implementation of this decision may occur on, but not before, five business days from the close of the appeal filing period. If an appeal is received, implementation may not occur for 15 days following the date of appeal disposition. Detailed records of the environmental analysis are available for public review at the West Fork Ranger District office, 6735 West Fork Road, Darby, Montana 59829. For further information on this decision contact District Ranger David M. Campbell or Jim Aronson at (406) 821-3269.

  
Lesley W. Thompson  
Acting Bitterroot National Forest Supervisor

  
Date



<b>HUGHES CREEK</b>		
<b>Road Number</b>	<b>Existing Travel</b>	<b>Proposed Travel</b>
310	Open	Open
5685	Open	Open
5688	Open	Open
5693	Open	Open
5694	Closed Yearlong all Motorized Vehicles	No change
5696	5.0 miles Open, 2.0 miles closed 10/15 – 12/1 all Motorized Vehicles	No change
5696A	Closed 10/15 – 12/1 to all Motorized Vehicles	No change.
5793	Closed 10/15 – 12/1 to all Motorized Vehicles	No change
13404	Open	2.2 closed Yearlong to Highway Vehicles, 10/15 – 12/1 all Motorized
74182	Closed Yearlong to Highway Vehicles	Closed Yearlong to Highway Vehicles, 10/15 – 12/1 all Motorized
74181	Closed Yearlong to Highway Vehicles	Remove from System No motorized use
13441	Closed Yearlong to Highway Vehicles, 10/15 – 12/1 to all Motorized Vehicles	No change
13886	Closed 10/15 – 12/1 to all Motorized Vehicles	No change
13438	Closed 10/15 – 12/1 to all Motorized Vehicles	No change
13439	Closed 10/15 – 12/1 to all Motorized Vehicles	No change
74162	Closed Yearlong to Highway Vehicles	Remove from System No motorized use
74164	Closed Yearlong to Highway Vehicles	Remove from System No motorized use
74166	Closed Yearlong to Highway Vehicles, 10/15 – 12/1 to all Motorized Vehicles	No change
74168	Closed Yearlong to Highway Vehicles	Remove from System No motorized use
74169	Closed Yearlong to Highway Vehicles	Remove from System No motorized use
74170	Closed Yearlong to Highway Vehicles, 10/15 – 12/1 to all	No change
74171	Closed Yearlong to all Motorized Vehicles	No change

<b>Road Number</b>	<b>Existing Travel</b>	<b>Proposed Travel</b>
74172	Closed Yearlong to all Motorized Vehicles	Remove from System No motorized use
74173	Closed Yearlong to all Motorized Vehicles	No change
74179	Closed Yearlong to all Motorized Vehicles	Remove last 1.0 mile from System, No motorized use. First 1.1 mile no change
74180	Closed Yearlong to Highway Vehicles	No change
74239	Closed Yearlong to Highway Vehicles, 10/15 – 12/1 to all Motorized	No change
74251	Closed Yearlong to all Motorized Vehicles	No change
74252	Closed Yearlong to all Motorized Vehicles	No change
74253	Closed Yearlong to Highway Vehicles, 10/15 – 12/1 to all Motorized Vehicles	No change
74287	Open	Closed Yearlong to Highway Vehicles, 10/15 – 12/1 to all Motorized
74289	Closed Yearlong to all Motorized Vehicles	Remove from System No motorized use
74165	Closed Yearlong to Highway Vehicles	Remove from System No motorized use
74176	Closed Yearlong to all Motorized Vehicles	No change
74288	Closed Yearlong to all Motorized Vehicles	Remove last 1.0 mile from System, no motorized use, First 1.0 mile no change
13437	Closed 10/15 – 12/1 to all Motorized Vehicles	No change
13439-A	Closed 10/15 – 12/1 to all Motorized Vehicles	No change
74181	Close Yearlong to Highway Vehicles	Remove from System No motorized use
74167	Close Yearlong to All Motorized Vehicles	No change

**OVERWHICH CREEK**

<b>Road Number</b>	<b>Existing Travel</b>	<b>Proposed Travel</b>
5699	3.0 miles open, 5.2 miles Closed Yearlong to Highway Vehicles and 10/15 – 12/1 to all Motorized Vehicles	No change
5700	Closed Yearlong to all Motorized Vehicles	1.6 miles Closed Yearlong to all Motorized Vehicles, 4.6 miles Remove from System, no motorized use
5702	Closed Yearlong to Highway Vehicles and 10/15 – 12/1 to all Motorized Vehicles	No change
5703	Open	No change
5705	Closed Yearlong to Highway Vehicles and 10/15 – 12/1 to All Motorized Vehicles	No change
5706	10.5 miles Open, 1.8 miles Closed Yearlong to Highway Vehicles and 10/15 – 12/1 to All Motorized Vehicles	No change
5706A	Closed Yearlong to Highway Vehicles and 10/15 – 12/1 to All Motorized Vehicles	No change
13400	Closed Yearlong to All Motorized Vehicles	Closed Yearlong to Highway Vehicles and 10/15 – 12/1 All Motorized Vehicles
74183	Closed Yearlong to Highway Vehicles and 10/15 – 12/1 to all Motorized Vehicles	No change
74189	Closed Yearlong to All Motorized Vehicles	Remove from System No motorized use
74184	Closed Yearlong to Highway Vehicles and 10/15 – 12/1 to All Motorized Vehicles	No change
74190	Closed Yearlong to All Motorized Vehicles	No change
74191	Closed Yearlong to All Motorized Vehicles	No change
74192	Closed Yearlong to All Motorized Vehicles	Remove from System No motorized use
74193	Closed Yearlong to All Motorized Vehicles	Remove from System No motorized use
74194	Closed Yearlong to All Motorized Vehicles	Remove from System No motorized use
74197	Closed Yearlong to All Motorized Vehicles	No change

Road Number	Existing Travel	Proposed Travel
74198	Closed Yearlong to All Motorized Vehicles	Remove from System No motorized use
74200	Closed Yearlong to All Motorized Vehicles	No change
74201	Closed Yearlong to All Motorized Vehicles	No change
74202	Closed Yearlong to Highway Vehicles and 10/15 – 6/15 to All Motorized Vehicles	No change
74203	Closed Yearlong to Highway Vehicles and 10/15 – 6/15 to All Motorized Vehicles	No change
74204	Closed Yearlong to Highway Vehicles and 10/15 – 6/15 to All Motorized Vehicles	No change
74205	Closed Yearlong to Highway Vehicles and 10/15 – 6/15 to All Motorized Vehicles	No change
74206	Closed Yearlong to Highway Vehicles and 10/15 – 6/15 to All Motorized Vehicles	No change
74207	Closed Yearlong to Highway Vehicles and 10/15 – 6/15 to All Motorized Vehicles	No change
74208	Closed Yearlong to Highway Vehicles	Remove from System No motorized use
74209	Closed Yearlong to Highway Vehicles and 10/15 – 6/15 to All Motorized Vehicles	Close Yearlong to All Motorized Vehicles
74210	Closed Yearlong to Highway Vehicles and 10/15 – 6/15 to All Motorized Vehicles	No change
74211	Closed Yearlong to Highway Vehicles and 10/15 – 6/15 to All Motorized Vehicles	Remove from System No motorized use
74212	Closed Yearlong to Highway Vehicles and 10/15 – 6/15 to All Motorized Vehicles	Remove from System No motorized use
74213	Closed Yearlong to Highway Vehicles and 10/15 – 6/15 to All Motorized Vehicles	No change
74214	Closed Yearlong to Highway Vehicles	0.6 miles no change, 1.5 miles Remove from System-no motorized use

<b>Road Number</b>	<b>Existing Travel</b>	<b>Proposed Travel</b>
74220	Closed Yearlong to All Motorized Vehicles	Closed Yearlong to Highway Vehicles and 10/15 – 12/1 to All Motorized Vehicles
74221	Closed Yearlong to All Motorized Vehicles	Closed Yearlong to Highway Vehicles and 10/15 – 12/1 to All Motorized Vehicles
74222	Closed Yearlong to All Motorized Vehicles	Closed Yearlong to Highway Vehicles and 10/15 – 12/1 to All Motorized Vehicles
74224	Closed Yearlong to All Motorized Vehicles	Closed Yearlong to Highway Vehicles and 10/15 – 12/1 to All Motorized Vehicles
74226	Closed Yearlong to All Motorized Vehicles	No change
74756	Closed Yearlong to Highway Vehicles and 10/15 – 12/1 to All Motorized Vehicles	No change
74199	Closed Yearlong to Highway Vehicles and 10/15 – 12/1 to All Motorized Vehicles	No change
74225	Closed Yearlong to Highway Vehicles and 10/15 – 12/1 to All Motorized Vehicles	No change
74196	Closed Yearlong to All Motorized Vehicles	No change
74756	Closed Yearlong to Highway Vehicles and 10/15 – 12/1 to All Motorized Vehicles	No change

<b>SLATE CREEK</b>		
<b>Road Number</b>	<b>Existing Travel</b>	<b>Proposed Travel</b>
1133	Open	4.8 miles Open, 1.0 mile Closed Yearlong to All Motorized Vehicles
13810	Open	No change
13811	Open	Close to All Motorized Vehicles 10/15 – 12/1
13833	Closed Yearlong to All Motorized Vehicles	No change
13858	Closed Yearlong to All Motorized Vehicles	No change

# Land and Resource Management Plan

## Bitterroot National Forest

1987 Plan

### Amendment # 24

#### Page Code

---

Reference Pages: III-49 to III-52 for Management Area 7b; Appendix K-2, Frank Church- River of No Return Wilderness Management Plan (2/85)

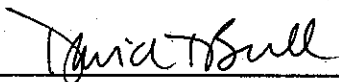
#### Amendment

Replace Appendix K-2, which references the Frank Church -River of No Return Wilderness Management Plan (2/85) with the Frank Church -River of No Return Wilderness Management Plan (12/2003).

#### Reason for Amendment

Previous direction in the:

1. Frank Church-River of No Return Wilderness Management as amended, July 1994;
2. Middle Fork of the Salmon River Management Operating Plan (5/20/93); and
3. Salmon Wild & Scenic River Management Plan (3/30/82) is now consolidated into a single management plan with corrections, changes and amendments.

  
\_\_\_\_\_

Forest Supervisor

Bitterroot National Forest

  
\_\_\_\_\_

Date signed:

# Land and Resource Management Plan

## Bitterroot National Forest

### 1987 Plan

### Amendment # 25

---

**Page Code:**

Site specific forest plan amendments to the Bitterroot Forest Plan (1987) {FEIS p. 1-12 to 1-15}

**Amendment:**

The decision includes an amendment that will modify the following Forest Plan standards specifically as they relate to the Middle East Fork decision.

- Forest-wide snag retention standard.
- Forest-wide thermal cover standard.
- Coarse woody debris standards.
- Unsuitable lands standards.

David T. Bull  
DAVID T. BULL  
Forest Supervisor  
Bitterroot National Forest

March 29, 2006  
Date Signed:



**ATTACHMENT G**



**Forest Plan Amendment**

**TABLE OF CONTENTS**

**1.0 SNAGS .....2**

1.1 SITE SPECIFIC AMENDMENT PROPOSED FOR THIS STANDARD .....2

1.2 PURPOSE AND NEED OF SNAG STANDARD AMENDMENT .....3

1.3 DIRECT, INDIRECT AND CUMULATIVE IMPACT OF MEF SNAG AMENDMENT.....4

1.4 APPLICATION OF FSH 1926.51 DIRECTIVES NOT SIGNIFICANT CRITERIA .....5

1.5 CONCLUSION -- SIGNIFICANCE/NON-SIGNIFICANCE .....6

**2.0 THERMAL COVER.....6**

2.1 SITE SPECIFIC AMENDMENT PROPOSED FOR THIS STANDARD .....6

2.2 PURPOSE AND NEED OF THERMAL COVER STANDARD AMENDMENT .....7

2.3 DIRECT, INDIRECT AND CUMULATIVE IMPACT OF MEF THERMAL COVER AMENDMENT.....8

2.4 APPLICATION OF FSH 1926.51 DIRECTIVES NOT SIGNIFICANT CRITERIA .....9

2.5 CONCLUSION -- SIGNIFICANCE/NON-SIGNIFICANCE .....10

**3.0 COARSE WOODY DEBRIS.....10**

3.1 SITE SPECIFIC AMENDMENT PROPOSED FOR THIS STANDARD .....10

3.2 PURPOSE AND NEED OF WOODY DEBRIS STANDARD AMENDMENT .....11

3.3 DIRECT, INDIRECT AND CUMULATIVE IMPACT OF MEF WOODY DEBRIS AMENDMENT.....12

3.4 APPLICATION OF FSH 1926.51 DIRECTIVES NOT SIGNIFICANT CRITERIA .....13

3.5 CONCLUSION -- SIGNIFICANCE/NON-SIGNIFICANCE .....14

**4.0 UNSUITABLE LANDS .....14**

4.1 SITE SPECIFIC AMENDMENT PROPOSED FOR THIS STANDARD .....14

4.2 PURPOSE AND NEED OF UNSUITABLE LANDS STANDARD AMENDMENT.....14

4.3 DIRECT, INDIRECT AND CUMULATIVE IMPACT OF MEF UNSUITABLE LANDS AMENDMENT.....15

4.4 APPLICATION OF FSH 1926.51 DIRECTIVES NOT SIGNIFICANT CRITERIA .....15

4.5 CONCLUSION -- SIGNIFICANCE/NON-SIGNIFICANCE .....16

## **ATTACHMENT G FOREST PLAN AMENDMENT**

Implementation of Alternative 2-Modified will require site specific forest plan amendments to the Bitterroot Forest Plan (1987) {FEIS p. 1-12 to 1-15}. Therefore, my decision includes an amendment that will modify the following Forest Plan standards specifically as they relate to my Middle East Fork decision.

- Forest-wide snag retention standard.
- Forest-wide thermal cover standard.
- Coarse woody debris standards.
- Unsuitable lands standards.

The need for these amendments, in order to meet the purpose and need of the Middle East Fork project was first disclosed in the scoping letter for this project. The information in this Attachment to the Record of Decision (ROD) compliments the analysis in the FEIS regarding these amendments {FEIS p. 1-12 to 1-15, 3.2-61, 3.2-63, 3.5-5, 3.5-48 to 3.5-49, 3.6-21 to 3.6-22, 3.6-23 to 3.6-24, 3.6-30, 3.6-32 to 3.6-34, and 3.6-106 to 3.6-107} and it organizes the information into one location

Section 1926.51 of the Forest Service Directives ([www.fs.fed.us/emc/nfma/index5.html](http://www.fs.fed.us/emc/nfma/index5.html)) gives guidance for determining what constitutes a “significant amendment” under NFMA. I have determined, based on this guidance, that these site-specific forest plan amendments are not significant because they will not individually or cumulatively significantly alter the long-term relationship between levels of multiple-use goods and services originally projected; and, they will not have an important effect on the entire land management plan or affect land and resources throughout a large portion of the planning area during the planning period. They modify standards and guidelines, but for this time and place. Therefore, they are not a long term change in the plan. The Forest plan for the Bitterroot is currently being revised. The changes will not have an important effect on the entire forest plan or affect land and resources throughout a large portion of the planning area during the planning period. They will only affect the Middle East Fork area specifically (i.e. a small portion of the Bitterroot National Forest), and only for this project. The public has been notified of these amendments throughout the NEPA process.

For each site-specific amendment this Attachment is organized to:

- Describe the amendment element
- Explain the purpose and the need for the amendment
- Describe the direct, indirect and cumulative impact of the amendment
- Apply the Forest Service Handbook criteria for assessing whether or not the amendment is significant, and
- Display my conclusion on significance or non significance

### **1.0 SNAGS**

#### **1.1 SITE SPECIFIC AMENDMENT PROPOSED FOR THIS STANDARD**

The Bitterroot Forest Plan includes the following standard” (2.e.(3), FP page II-20):

“All snags that do not present an unacceptable safety risk will be retained.”

My decision will clarify and amend this standard, for this project only, to retain the following snags by habitat type group.

**Table 1: Proposed Snag Standard**

<b>HT Group</b>	<b>Snags (average per acre)</b>
A & B	2-5
C, G	4-12
E, F, H	10-15

Habitat Groups are described in Chapter 3, Section 3.2.6 of the FEIS.

Stand level prescriptions by a certified silviculturist and wildlife biologist will provide unit specific snag retention requirements including spatial distribution, species, and snag sizes. Prescriptions will meet the proposed snag standards including the above number of snags retained by habitat type (HT) groups. HT groups are described in the FEIS {p. 3.2-9-3.2-13}. Irregular distribution and small clumps are desirable. All clumps will be less than 4 acres in size unless otherwise agreed to by the wildlife biologist.

## **1.2 PURPOSE AND NEED OF SNAG STANDARD AMENDMENT**

### **Amendment Purpose:**

This site-specific snag standard is meant to clarify the intent of the Forest Plan and to apply the best available information to this project's snag retention design in support of the Plan's and project's goals and objectives (PF-WL-002).

The purpose of the 1987 Forest Plan snag standard is to retain some vertical structure in the regenerated forest (Forest Plan Five Year Review 1994, p. 22, p. 70), in support of the wildlife goals and objectives, while providing a safe working environment. In contrast to some regeneration management practices prior to 1987 where no vertical structure was maintained at all, the standard intended that when conducting clearcuts, seedtree, and shelterwood harvests, some snags would be retained as vertical structure (John Ormiston, personal communication) and biodiversity (Forest Plan Five Year Review 1994, p. 16, Appendix – Detailed Reports p. 2). In the Forest Plan Five Year Review it states that "In order to meet the intent of the Forest Plan to retain some large vertical woody structure, about two trees per acre are needed..." (p. 22). In old growth habitat the Forest Plan has as criteria to consider "snags, generally 1.5 per acres greater than 6 inches dbh and .5 per acre greater than 20 inches" (II-20).

It is clear that the Forest Plan considered and permits fuel reduction activities and salvage of dead or dying trees (FP Record of Decision, 1987). Fuel treatment is discussed in several areas of the Forest Plan (II-7, II-8, II, 28, III-7, III-13, III-20, III-28, III-34, III-38, III-63). The Forest Plan FEIS even specifically discussed the concern of stand replacing fires following mortality from insect epidemics, such as is occurring in the Middle East Fork area, and due to fire suppression (Volume I, p. III-33, IV-22). Salvage is also discussed in multiple areas of the Forest Plan, further supporting that the removal of snags, beyond what is necessary for safety was not only intended but was programmed (FP p. II-20(6), II-20(2), II-22(2), III-8, III-14, III-21, III-29, III-35).

### **Need for the Amendment:**

The amendment is needed for three reasons. First, the current standard, as written, is inconsistent with other objectives in the plan. Secondly, it does not recognize the current condition on the Bitterroot, and; finally, newer scientific information is available than was available in 1987, that will contribute to meeting the Forest Plan's goals and objectives.

The snag standard is inconsistent with other objectives in the Forest Plan, as written, because if you read it by itself, without the context of the rest of the plan, it can be interpreted to mean that no snags (dead trees), other than those that pose safety threats could ever be cut anywhere on the Bitterroot National Forest. In the context of the rest of the Forest Plan, and the information used to develop the Forest Plan, it is clear that that was not the intention of the plan or this standard. It is clear that the plan not only intended for, but actually programmed the removal of snags (salvage harvest, fuel reduction). This site specific project amendment more clearly and explicitly provides for this intention, while meeting wildlife goals and objectives.

Since the drafting of the Forest Plan there is additional scientific understanding of the number of snags that would be expected in different habitat type groups. The Forest Plan did not look at the appropriate number of snags by ecological unit. The project specific standard requires more snags per acre than suggested for consideration in the Forest Plan for old growth habitat, and in the Five Year Review and is within the range expected by more recent science (Harris 1999; Green et al. 1992, errata 2005, p. 9 and 23; USDA 2000; PF-WL-004).

In summary, this amendment to the Forest Plan standard is needed because:

- The current standard, as written but not as intended, is inconsistent with other plan objectives.
- Does not recognize the current conditions on the Bitterroot National Forest.
- Does not recognize newer scientific information concerning snags.

### **1.3 DIRECT, INDIRECT AND CUMULATIVE IMPACT OF MEF SNAG AMENDMENT.**

#### **Direct & Indirect:**

Because this amendment really just clarifies the intent of the existing standard there is, in essence, no direct or indirect change or effect by implementing this site specific amendment, relative to what could have been implemented under the intent of the Forest Plan snag standard.

Under Alternative 2-Modified approximately 22,900 acres or 89% of the project area would retain all existing snags. Some snags would be felled and removed from the forest on approximately 2,893 acres or 11% of the project area. Treatments reducing snag numbers would include intermediate, sanitation salvage and, salvage/regeneration. Some small dead trees (non-commercial size) could be removed with the slashing prescriptions as well (1,558 acres), but this is not considered an impact on snag habitat. Mitigations for snag retention stated in Attachment A and C of this record of decision would be followed. Mitigations are designed to assure that the number, size and species of snags that are left on site are within the historic ranges for a given habitat type. Intermediate, sanitation salvage and salvage/regeneration treatments would occur on approximately 2,727 acres in habitat type groups A, B, C & G. These habitat types will have snag and down woody components similar to what occurred in stands that developed before fire suppression under historic natural conditions {FEIS p. 3.6-20; PF-WL-004}. The numbers retained would be more than contemplated in the Forest Plan (FP p. II-20; Forest Plan Five Year Review 1994, p. 22). In habitat type groups E, F & H, harvest on approximately 166 acres will result in snag numbers in the lower range of the natural range of variability in order to meet fuel reduction objectives {FEIS p. 3.6-20}. The numbers retained, however, will be more than contemplated in the Forest Plan (FP p. II-20; Forest Plan Five Year Review 1994, p. 22). The dominant fire regime in these cooler, moister habitat types is stand-replacing. Habitats for snag associated wildlife species will be altered by the removal of some snags from the treatment areas; meaning the choices of snags will change. However, snag habitat will still exist. In addition, about 22,900 acres of habitat with snags across the landscape representing all types and size classes will be present in the analysis area. This assures the Forest Plan Objective of maintaining vegetative diversity on land where timber production is a goal of management is accomplished.

It is reasonable to assume that historic levels of snags for a given habitat type would be suitable amounts for snag associated or dependent species. Ponderosa pine will be favored for snag retention, where appropriate. Monitoring of recent vegetation management activities indicates prescriptions for snag retention have consistently been met (PF-WL-008). In the FEIS analysis of the effects of this amendment and snag mitigations it was determined that it would not likely contribute toward a loss of viability to populations or species for the marten and fisher {p. 3.6-42}, pileated woodpecker {p. 3.6-50}, western big-eared bat {3.6-57}, flammulated

owl {3.6-70}, northern goshawk {3.6-79 to 3.6-80} and, black-backed woodpecker {3.6-82}. This shows that this site specific amendment works towards meeting the Forest Plan goal and objective of maintaining habitat to support viable populations of wildlife species.

In summary, Alternative 2-Modified, would reduce the number of snags available to snag associated species, limiting snag choices but not eliminating habitat and it would provide snags within the number expected by habitat type. Vertical diversity within treatment units will be retained. Additionally, the abundance of snags throughout the analysis area assures sufficient habitat for snag dependent or associated species, so viability is not compromised. Monitoring of recent vegetation management activities (Burned area recovery monitoring PF-WL-008) indicates prescriptions for snag retention have consistently been met.

#### **Cumulative Effects:**

The number and distribution of snags on the Bitterroot Forest may be at a modern day all time high. The 2000 fires burned over about 307,000 acres of National Forest, creating snags on all or most of the area burned, and only about 10,000 acres have been salvage harvested. Even in the salvage harvest units, approximately as many snags as occurred in historic unburned forests were retained using snag guidelines similar to those in this site specific amendment. Douglas-fir bark beetles have infested over 30,000 acres of the Forest outside Wilderness, and about 20,000 acres of Wilderness lands have beetle infestations. Less than 1,000 acres of beetle killed trees have been harvested, and snags approximating historic numbers have been retained in the harvest units as well.

Snags are abundant and well distributed across the Forest. Even if we don't include the 307,000 acres burned in 2000 or the acres burned in the fires of 2003 and 2005, or the increases due to the Douglas-fir bark beetle epidemic, the estimated average number of snags per acre with diameter at breast height (dbh) between 10.0" and 19.9" is 8.7 snags with a 90% confidence interval of 6.7 to 10 snags per acre. The average number of snags per acre with dbh 20" and larger is 0.9 snags per acre with a 90% confidence interval of 0.6 to 1.2 snags per acre (PF-WL-062). With the abundance of snags available, the Northern Region Snag Management Protocol in place (USDA 2000), and monitoring data that shows we consistently meet snag retention standards (PF-WL-008), every indication is that snag dependent species will have sufficient snag habitat to maintain viability on the Forest.

Appendix B of the FEIS {Volume 2}, displays the past, present and reasonably foreseeable future projects around the Middle East Fork Analysis area. The cumulative effects of these actions, with the actions of Alternative 2-Modified, in particular the implementation of the site-specific snag standard are the same as displayed for Alternative 2 and Alternative 3 in the FEIS {p. 3.6-88}.

This site specific snag amendment will apply to 0.2 percent of the Bitterroot National Forest (2,893 acres). Since the establishment of the Forest Plan in 1987, one other clarification of the snag standard was made for the Burned Area Recovery project. Together with Alternative 2-Modified, the cumulative effects of clarifying the snag standard with this amendment will amount to less than 0.8 percent of the forest, which will be imperceptible when considered at the forest scale.

Snags retained today eventually can become downed woody debris. Cumulatively, by implementing this site-specific standard for snags, and implementing the site specific standard for downed woody debris the areas is expected to still have both snags and downed woody debris as would be expected by habitat type, over time. There is no perceptible cumulative effect of this Forest Plan amendment with the thermal cover amendment and/or the unsuitable land amendment for this project.

## **1.4 APPLICATION OF FSH 1926.51 DIRECTIVES NOT SIGNIFICANT CRITERIA**

Our determination of whether this proposed amendment is significant was done using the process in the Forest Service Planning Handbook, 1926.51 (<http://www.fs.fed.us/emc/nfma/index5.html>). The handbook states that

changes to the land management plan that **are not significant** can result from four specific situations. This site-specific amendment is compared to those situations below:

Changes to the Land Management Plan That are Not Significant	Alternative 2-Modified Snag Standard Amendment
<p>1. Actions that do not significantly alter the multiple-use goals and objectives for long-term land and resource management.</p>	<p>The snag amendment does not alter the multiple-use goals and objectives for long-term land and resource management at all – let alone significantly alter them. The amendment will provide habitat to support viable wildlife populations and will maintain vegetative diversity on land where timber production is a goal of management. This will be accomplished by providing snags for snag associated or dependent species, in a number that current science suggests would be expected for that habitat type.</p> <p>The amendment affects a tiny portion of the Bitterroot National Forest (less than 0.2 percent). It is a short-term, site-specific and project-specific amendment that will have no effect Forest Plan objectives or outputs.</p>
<p>2. Adjustments of management area boundaries or management prescriptions resulting from further on-site analysis when the adjustments do not cause significant changes in the multiple-use goals and objectives for long-term land and resource management.</p>	<p>The snag amendment does not adjust management area boundaries or management prescriptions. It does provide for more site-specific application by requiring a range of snags based on habitat types.</p>
<p>3. Minor changes in standards and guidelines.</p>	<p>The snag amendment is a minor change to the standard based on more recent science.</p>
<p>4. Opportunities for additional projects or activities that will contribute to achievement of the management prescription.</p>	<p>The snag amendment applies more recent science in the implementation of the management prescription that provides an improved ecologically based means of retaining snags.</p>

## 1.5 CONCLUSION -- SIGNIFICANCE/NON-SIGNIFICANCE

Based on consideration of the four factors identified in the Forest Service Planning Handbook, 1926.51, and considering the Forest Plan in its entirety, I have determined that the adoption of the snag amendment to the Bitterroot National Forest Plan is not significant. This amendment is fully consistent with, but further refines and clarifies the means to achieve, current Forest Plan goals and objectives.

## 2.0 THERMAL COVER

### 2.1 SITE SPECIFIC AMENDMENT PROPOSED FOR THIS STANDARD

The Forest Plan The Bitterroot Forest Plan includes the following standard” (2.e.(12), FP page II-21):

“Big-game cover/forage relationships, as described in Guides for Elk Habitat Objectives (USDA, 1978), will be a consideration in planning timber management activities.”

The Forest Plan Record of Decision (1987, p. 8) more specifically states:

“Winter range will be managed to provide diversity of forage and hiding cover with at least 25 percent of the area in thermal cover at all times.”

My decision will amend this standard, for this project only, to read:

**“Within the Middle East Fork project area treatments will be allowed in Units 2, 237, 238 and 406 that will reduce thermal cover.”**

## **2.2 PURPOSE AND NEED OF THERMAL COVER STANDARD AMENDMENT**

### **Amendment Purpose:**

The purpose of this site-specific thermal cover standard is to recognize and address the conflicting nature of the Forest Plan’s fuels/fire protection goals, objectives and standards for the wildland urban interface and the overlapping winter range thermal cover standard defined in the Forest Plan Record of Decision (1987, p. 8). {FEIS p. 1-13}

Pertinent Forest Plan Objectives (FP II-5, II-7)

- Cooperate with the States of Idaho and Montana to maintain the current level of big-game hunting and trout fishing opportunities.
- Eliminate backlog fuels.

The Forest Plan objectives for elk management were further defined in the 1992 Montana Elk Management Plan, which documents the Bitterroot National Forest agreements with the Montana Department of Fish Wildlife and Parks.

The purpose of the 1987 Forest Plan Record of Decision thermal cover requirement is to provide habitat that at the time, was believed to be necessary to meet the Forest Plan goals and objectives listed above.

### **Need for the Amendment:**

Thermal cover is analyzed for big game winter range north of the East Fork Bitterroot River constituting a defined herd unit and south of the river constituting another herd unit. Thirty three percent of the winter range south of the East Fork of the Bitterroot River met thermal cover criteria when mapped prior to 2004, which means that winter range meets the 25% thermal cover requirement on the south side of the river. Unit 125 (30 acres), is on the south side of the river. Although thermal cover will be lost in a small portion of this stand, (less than ¼ acre), the requirement of 25% will still be met on the south side of the river. Treatments will not change the existing percentage of thermal cover in the herd unit. Therefore, an amendment is not needed for treatments on the south side of the East Fork of the Bitterroot River.

Thermal cover north of the river is currently at 5%, which means it currently does not meet the 25% requirement. Thermal cover mapping completed prior to 2004 indicates that portions<sup>1</sup> of four treatment units, 2, 237, 238, and 406, which are on the north side of the river, provide thermal cover. The thermal cover within these treatment areas totals 106 acres. In order to qualify as thermal cover stands must have coniferous trees 40 feet or taller and have an average crown closure of 70% or more (FP p. VI-41). The site-specific amendment is needed because in order to meet the goals and objectives of the Middle East Fork project, thermal cover in the herd unit (which currently does not meet the requirement) will be slightly reduced because treatments will

<sup>1</sup> One of these units, Unit 2, has less than ¼ acre currently providing thermal cover.



reduce the crown closure, below 70%, in these three units within the wildland urban interface. Thermal cover after treatment will go from 5% to 4% of the heard unit. As a reminder, the objectives of the project are to:

- Reduce wildland fire threats to the Middle East Fork community.
- Restore fire-adapted ecosystems in the Middle East Fork landscape.
- Restore stands affected by the Douglas-fir bark beetle epidemic by treating infested areas and lands at imminent risk of spread to promote healthy ecosystem function, composition and structure.

Many stands in the Middle East Fork area have experienced the effects of the beetle epidemic, therefore destroying the characteristics that made them thermal cover. It is possible that the effects of the Douglas-fir bark beetle epidemic has reduced the crown closure to below 70% in these four units, and in other stands, since the thermal cover mapping. However, if not, thermal cover will be reduced below existing levels through treatments in these units.

In summary, this amendment to the Forest Plan standard is needed because fuel reduction treatments will reduce the amount of thermal cover on 106 acres of winter range on the north side (southern aspect) of the East Fork of the Bitterroot River.

### **2.3 DIRECT, INDIRECT AND CUMULATIVE IMPACT OF MEF THERMAL COVER AMENDMENT.**

#### **Direct & Indirect:**

The effects on thermal cover of Alternative 2-Modified and this amendment are the same as analyzed for Alternative 2 in the FEIS {p.3.6-30}.

The direct effect of Alternative 2-Modified is that 106 acres of thermal cover will be reduced through fuel reduction treatments. All 106 acres are on the north side of the river (south aspect). The open grown ponderosa pine and mixed Douglas-fir, ponderosa pine stands on the warm dry and moderately warm slopes on the north side of the river probably never supported enough trees to qualify as thermal cover and certainly in historic landscapes thermal cover did not occupy 25 percent of this elk winter range.

Research conducted since the Forest Plan has questioned the necessity of thermal cover for survival of wintering elk (Cook, et al. 1998). Researchers found “no significant, positive effect of thermal cover on the condition of elk during any of the six experiments. In contrast, dense cover provided a costly energetic environment, resulting in significantly greater over-winter mass loss, fat catabolism, and (in one winter) mortality.” {p. 3.6-27}. Wintering elk survived and retained body weight better in open areas than in thermal cover. For this reason, whether thermal cover is necessary for individual elk survival or elk population viability seems open to question. In the Middle East Fork, elk numbers are above State goals, in spite of less than 25% thermal cover on the north side of the river.

This means that it is doubtful that the reduction in 106 acres of thermal cover through treatments in Alternative 2-Modified will have an indirect effect on wintering elk. This reduction is not expected to impact the Forest Service’s ability to meet the Forest’s and State’s elk objections. We continue to meet and exceed both within this area and Forest wide. The Montana Fish, Wildlife and Parks has concurred that the loss of thermal cover, through treatments in the Middle East Fork area should not affect elk objectives (FP, p. II-5) (John Vore, pers. comm., 2005, PF-WL-001). {FEIS p. 3.6-30}

#### **Cumulative Effects:**

{FEIS 3.6-32}

Since the Forest Plan has been implemented it has become apparent that many portions of winter ranges in the Bitterroot are biologically incapable of producing structure that meets thermal cover. In the Middle East Fork, the south facing slopes of the north side of the East Fork, now have only about five percent of the area in thermal

cover. The fires of 2000 and subsequent bark beetle activity have had a short term effect, but the open grown ponderosa pine, Douglas-fir/ponderosa pine stands on these warm dry slopes probably never supported enough trees to qualify as thermal cover and certainly in historic landscapes thermal cover did not occupy 25 percent of this elk winter range. On the other hand, even after fires and the beetle epidemic, the north facing slopes of the south side of the East Fork has retained about 33 percent thermal cover.

As stated in the thermal cover analysis above, recent research has cast doubt on the necessity for thermal cover as a major component of elk winter range. The history of elk numbers seen on winter ranges in the East Fork, a continuing upward trend and an all time high in 2005, would indicate the recent downward trend in thermal cover as a result of fire, timber harvest and bark beetle attacks has had little affect on the health of the elk herd. This same trend in winter range thermal cover exists forest-wide. Even winter ranges on private land have had reductions in thermal cover as a result of timber harvest and thinning to create defensible space (from wildfires) around structures in the wildland urban interface. In spite of this relatively wide spread reduction of thermal cover, the elk herd in the Valley, as counted by Fish, Wildlife and Parks personnel, has continued to increase.

In most hunting districts of the Bitterroot, the 2004 Elk Management Plan (MT Fish, Wildlife and Parks, 2004) objective is to stabilize or reduce the number of elk on winter ranges. Therefore the slight reduction of thermal cover by management actions in the Middle East Fork will have negligible and discountable effects on thermal cover from a Forest wide perspective and will not likely have a measurable effect on the elk population in MEF or the Bitterroot Valley. Therefore, this amendment will contribute toward meeting the Forest Plan hunting opportunity objective by cooperating with the State of Montana to maintain their hunting opportunity and elk population goals. Elk numbers are so high there is no question or concern for elk viability.

Appendix B of the FEIS {Volume 2}, displays the past, present and reasonably foreseeable future projects around the Middle East Fork Analysis area. The cumulative effects of these actions, with the actions of Alternative 2-Modified, in particular the implementation of the site-specific thermal cover standard are the same as displayed for Alternative 2 in the FEIS {p. 3.6-88}.

Since the establishment of the Forest Plan in 1987, one other similar amendment of the thermal cover requirement was made for the Burned Area Recovery project. Together with Alternative 2-Modified, the cumulative effects of amending the thermal cover requirement with this amendment will have an imperceptible effect when considered at the forest scale because the change in thermal cover is not expected to adversely effect the ability to produce elk in this area and the Forest objective and goals are expected to continue to be met.

There is no perceptible cumulative effect of this amendment in conjunction with the other amendments to the Forest Plan in this project.

## 2.4 APPLICATION OF FSH 1926.51 DIRECTIVES NOT SIGNIFICANT CRITERIA

Our determination of whether this amendment is significant was done using the process in the Forest Service Planning Handbook, 1926.51 (<http://www.fs.fed.us/emc/nfma/index5.html>). The handbook states that changes to the land management plan that **are not significant** can result from four specific situations. This site-specific amendment is compared to those situations below:

Changes to the Land Management Plan That are Not Significant	Alternative 2-Modified Thermal Cover Amendment
1. Actions that do not significantly alter the multiple-use goals and objectives for long-term land and resource management.	The thermal cover amendment does not alter the multiple-use goals and objectives for long-term land and resource management. In fact, the amendment will continue to provide habitat to support a viable population of elk and big game (viability is not a concern) and will meet the objective of cooperating

	<p>with Montana Fish Wildlife and Parks to meet their elk population and hunting goals, as confirmed by the agency (John Vore, pers. comm., 2005, PF-WL-001).</p> <p>The amendment affects a small portion of the thermal cover on the north side of the Middle East Fork, (1%) and reduces a tiny portion on the Bitterroot National Forest. It is a short-term, site-specific and project-specific amendment that will have no effect on meeting Forest Plan objectives or outputs.</p>
<p>2. Adjustments of management area boundaries or management prescriptions resulting from further on-site analysis when the adjustments do not cause significant changes in the multiple-use goals and objectives for long-term land and resource management.</p>	<p>The thermal cover amendment does not adjust management area boundaries or management prescriptions. It does provide for more site-specific application by allowing for thermal cover reduction on a site specific basis where population objectives have been met and exceeded.</p>
<p>3. Minor changes in standards and guidelines.</p>	<p>The thermal cover amendment is a one-time, site-specific and project specific change to allow reduction in thermal cover on four units on winter range (however the reduction on Unit 125 will still meet the standard).</p>
<p>4. Opportunities for additional projects or activities that will contribute to achievement of the management prescription.</p>	<p>For this specific project, maintaining thermal cover can not be achieved at the same time on the same piece of ground while meeting the fuel reduction and restoring fire adapted ecosystem objectives of this project. The purpose and need of this project is consistent with the goals and objectives of the Forest Plan. Even by not meeting the 25% requirement this project will still meet the Forest Plan goals and objectives related to elk (viable populations and cooperating with State goals). These are the goals that the 25% requirement was intended to support.</p>

## 2.5 CONCLUSION -- SIGNIFICANCE/NON-SIGNIFICANCE

Based on consideration of the four factors identified in the Forest Service Planning Handbook, 1926.51, and considering the Forest Plan in its entirety, I have determined that the adoption of the thermal cover amendment to the Bitterroot National Forest Plan is not significant. This amendment is fully consistent with, but further refines and clarifies the means to achieve, current Forest Plan goals and objectives.

## 3.0 COARSE WOODY DEBRIS

### 3.1 SITE SPECIFIC AMENDMENT PROPOSED FOR THIS STANDARD

The Bitterroot Forest Plan includes the following Management Area standards relevant to coarse woody debris and the Middle East Fork project:

MA 1, 2, 3a: (FP p. III-6, f. (4); p. III-12, f. (3); p. III-19, f. (4))

- Site preparation methods will assure the retention of modest levels of organic matter, including woody materials 8 inches or less in diameter, to provide nutrient and ectomycorrhizal levels necessary for

maintaining growth rates; while still providing an adequate mineral base for seed germination and reduction of grass competition. On dry and harsh sites, at least 10 to 15 tons per acre of residual debris is needed (Harvey, et al 1981a & 1981b; Harvey, 1982). ...

MA 2 (FP p. iII-13, j.(2))

- Natural and activity fuels will be treated to reduce slash depth below 1 ½ feet to provide for big-game movement. About 25 tons/acre of down trees larger than 6-inch diameter will be left for nongame habitat if available.

The site-specific coarse woody debris standard to be applied for the Middle East Fork project would read:

**To maintain soil productivity and meet wildlife objectives, coarse woody debris should be maintained within each Middle East Fork treatment areas at or above the minimum levels identified in the following table and descriptive objectives.**

*Table 2: Proposed Coarse Woody Debris Standards by Habitat Type*

HT Group	Coarse Woody Debris
A, B	5-10 tons/acre
C, G	18 tons/acre
E, F, H	14 tons/acre

Habitat Groups are described in the FEIS (Chapter 3, Section 3.2.6).

These are minimum coarse woody debris amounts to be retained for a given habitat type. They are to be maintained at the treatment area (unit) level rather than on an acre-by-acre scale. To account for the natural variability and potential for each area, site-specific prescriptions will be developed, with appropriate interdisciplinary involvement, to specify the appropriate amount of coarse woody debris (CWD) to leave over and above these minimums.

Retain the recommended woody debris with material generally in larger size classes (greater than 4” in diameter) and well distributed across the treatment area (Graham et al., 1994 and Graham, personal communication 2001). Material greater than 4 inches in diameter can be included in the tons per acre.

Material should also vary by species and by size classes available across the treatment area. Material to be retained for coarse woody debris may or may not be felled to the forest floor. Coarse woody debris material may be left standing and allowed to fall naturally over time.

### 3.2 PURPOSE AND NEED OF WOODY DEBRIS STANDARD AMENDMENT

**Amendment Purpose:**

The purpose of this proposed site-specific standard is two fold. It is intended to apply the best available research and information to this project’s coarse woody debris design in support of the Plan’s and project’s goals and objectives. Secondly, it will eliminate contradicting standard direction. The proposed ecologically based standard would replace the various management area standards in the 1987 Forest Plan. {FEIS p. 1-14}

**Intent of the Plan:**

Pertinent Forest Plan Goals (FP II-3, FP II-4)

- Maintain soil productivity....
- Design fire management programs that are consistent with other resource goals (Appendices K and M)

Pertinent Forest Plan Objectives (FP II-6, II-7)

- Design management activities to maintain soil productivity.
- Eliminate backlog fuels.

**Need for the Amendment:**

Since the drafting of the Forest Plan there is additional scientific understanding of the amount of coarse woody debris that would be expected in different habitat type groups (Graham et al., 1994) providing more refined guidelines for meeting the Forest Plan goals and objectives. The amounts prescribed in the Forest Plan are sometimes contradictory to each other (i.e. 10 to 15 tons/ac. in one standard and 25 tons/ac. in another standard; sometimes referring to the same piece of ground). In addition, to reduce fire intensity (flame length and rate of spread), heavy amounts of coarse woody debris should not be left in stands in the Middle East Fork hazardous fuels reduction project. This amendment also requires coarse woody debris be maintained in Management Area 8b that did not previously have coarse woody debris requirements.

### **3.3 DIRECT, INDIRECT AND CUMULATIVE IMPACT OF MEF WOODY DEBRIS AMENDMENT.**

**Direct & Indirect Effects:**

For habitat type groups A and B (64% of the treatment units in Alternative 2-Modified), 5-10 tons per acre of downed woody debris would be retained per acre. This overlaps, but is generally less than the 10-15 tons per acre mentioned in the Forest Plan (FP p. III-6, f. (4); p. III-12, f. (3); p. III-19, f. (4)), and the 25 tons per acre mentioned in another part of the plan (FP p. III-13, j.(2)). The amount of 5-10 tons per acre on these warm dry sites is consistent with the more recent science (Graham et al., 1994). In addition, to reduce fire intensity (flame length and rate of spread), uncharacteristic amounts of coarse woody debris should not be left in stands in the Middle East Fork hazardous fuels reduction project.

Alternative 2-Modified will leave a portion of the existing stand on the site. Yarding will be either whole tree or leave tops attached. These yarding methods will reduce fire potential. Coarse woody residue will be left from designated leave trees, both standing and down, and from breakage of limbs and broken tops that will occur during harvest (Chip Britting, Bitterroot NF, Forester; personal communication). This amount will contribute to maintaining soil productivity. {FEIS p. 3.5-19}. Where units are located close to private lands or within the urban interface (WUI), coarse woody residue amounts will be towards the minimum range for a habitat type found in the table. The proposed fuel treatments will leave slash on the ground through the winter and into late summer/fall (Lee McAlpine; BNF Fuels Specialist; personal communication). This will provide opportunity for the nutrients in the slash to be leached into the soil. The exception will be around homes and campgrounds, where fire is a major concern. In these cases, slash will be treated as soon as possible.

**Cumulative Effects**

Appendix B of the FEIS {Volume 2}, displays the past, present and reasonably foreseeable future projects around the Middle East Fork Analysis area. The cumulative effects of these actions, with the actions of Alternative 2-Modified, in particular the implementation of the site-specific coarse woody debris standard are the same as displayed for Alternative 2 in the FEIS {p. 3.5-33 to 3.5-47}. In summary, past management practices did not always retain coarse woody debris in quantities considered sufficient today. Today and for the Middle East Fork project, additional emphasis is given to the season of harvest, ensuring that equipment operation are limited to designated areas, and that post-harvest activity does not reduce site and soil productivity. Conservation of soil organic matter and coarse woody residue are considered in every project. The intent is to meet and exceed the BMP's and Soil and Water Conservation Practices outlined in Appendix A. {3.5-44}.

The coarse woody debris amendment allows a quantitative measurement of the amount of coarse woody material to be left by habitat group based on current science. This will occur on less than 0.3 percent of the Bitterroot National Forest (4,938 acres). Since the establishment of the Forest Plan in 1987, one other allowance has been made and that was for the Burned Area Recovery Project in 2001. The Burned Area Recovery coarse woody

material amendment was needed to address soil and site productivity concerns related to harvest following large wildfires and was also based on similar current science. Treatment units within the Fires of 2000 burned comprised approximately 0.6 percent of the Bitterroot National Forest. Together with Alternative 2 of this project, the cumulative effects of modifying the coarse woody material levels will amount to less than one percent of the forest. However, there is no appreciable effect at the site scale, therefore no appreciable effect when considered at the forest scale either. {FEIS p. 3.5-48}.

Cumulatively, by implementing this site-specific standard for coarse woody debris, and implementing the site specific standard for snags the areas is expected to still have both snags and downed woody debris as would be expected by habitat type, over time, fully supporting the Forest goals and objectives. There is no perceptible cumulative effect of this amendment in conjunction with the thermal cover and unsuitable land Forest Plan amendment.

### 3.4 APPLICATION OF FSH 1926.51 DIRECTIVES NOT SIGNIFICANT CRITERIA

Our determination of whether this amendment is significant was done using the process in the Forest Service Planning Handbook, 1926.51 (<http://www.fs.fed.us/emc/nfma/index5.html>). The handbook states that changes to the land management plan that **are not significant** can result from four specific situations. This site-specific amendment is compared to those situations below:

Changes to the Land Management Plan That are Not Significant	Alternative 2-Modified Coarse Woody Debris Standard Amendment
1. Actions that do not significantly alter the multiple-use goals and objectives for long-term land and resource management.	<p>The coarse woody debris amendment does not alter the multiple-use goals and objectives for long-term land and resource management. The amendment will continue to work toward maintaining soil productivity. By replacing the current Forest Plan Standards with one developed with more recent studies.</p> <p>The amendment affects a tiny portion of the Bitterroot National Forest (less than 0.2 percent). It is a short-term, site-specific and project-specific amendment that will have no effect Forest Plan objectives or outputs.</p>
2. Adjustments of management area boundaries or management prescriptions resulting from further on-site analysis when the adjustments do not cause significant changes in the multiple-use goals and objectives for long-term land and resource management.	The coarse woody debris amendment does not adjust management area boundaries. It does provide for more site-specific ecologically based management prescription application by requiring a range of coarse woody debris based on habitat types.
3. Minor changes in standards and guidelines.	The coarse woody debris amendment is a minor change to Management Area standards based on more recent science.
4. Opportunities for additional projects or activities that will contribute to achievement of the management prescription.	The coarse woody debris amendment applies more recent science in the implementation of management prescriptions which provides an improved, ecologically based means of retaining coarse woody debris.

### 3.5 CONCLUSION -- SIGNIFICANCE/NON-SIGNIFICANCE

Based on consideration of the four factors identified in the Forest Service Planning Handbook, 1926.51, and considering the Forest Plan in its entirety, I have determined that the adoption of the coarse woody debris amendment to the Bitterroot National Forest Plan is not significant. This amendment is fully consistent with, but further refines and clarifies the means to achieve, current Forest Plan goals and objectives.

## 4.0 UNSUITABLE LANDS

### 4.1 SITE SPECIFIC AMENDMENT PROPOSED FOR THIS STANDARD

The site-specific standard to be applied to this decision reads:

**“For the Middle East Fork project, vegetation manipulation, including timber harvest or removal, and associated activities are permitted to meet project objectives on unsuitable lands in MA 1, 2, 3a and 8b.”**

### 4.2 PURPOSE AND NEED OF UNSUITABLE LANDS STANDARD AMENDMENT

#### **Amendment Purpose:**

The 1987 Forest Plan describes management areas in the Middle East Fork area in which the management area or portions thereof, restrict management activities, including the use of “timber harvest” on lands identified as unsuitable for regulated timber management or production. The Middle East Fork project is not proposing timber production on unsuitable lands. However, these management areas also specify harvest that is allowed.

- salvage harvest to meet management areas goals and standards (MA 1, p. III-5 e. (8) and MA 3a, p. III-18 e. (7)),
- timber harvest to meet cover/forage objectives (MA 2 at III-11 e.), and
- timber harvest to improve winter range forage production (MA 8b at p. III-62 e. (1)).

The proposed amendment would allow vegetation management, including harvest or removal and associated activities, to be used as a tool within unsuitable lands in management areas 1, 2, 3a, and 8b to accomplish the project objectives. The amendment is consistent with the National Forest Management Act which permits salvage or harvest to protect other multiple-use values within unsuitable lands (16 USC 1604(k)).

The Forest Plan identified portions of MA1, 2, 3a and 8b as unsuitable for timber production due to site limitations regarding tree growth, restocking limitations, or management area objectives; not because timber production would cause irreversible damage (PF-SILV-051, FEIS 3.5-4, 3.-5, Forest Plan Note #207, 5/1987; Forest Plan Note #51, 4/1981, Forest Plan A-1).

Management area 8b is predominately grassland; however, it does include some forested lands. Some of these forestlands within this management area are capable of being managed for timber production, but most are classified as unsuitable to manage for timber production both by virtue of the management area allocation as big game winter range, and also due to inherent site limitations (Forest Plan III-61). Portions of treatment units 1, 38, and 62 in Alternative 2-Modified are within management area 8b and include approximately 170 acres of non-commercial harvest treatments and 84 acres of commercial harvest treatment.

Most of management areas 1, 2, and 3a are forestlands suitable for timber production, but each management area includes parcels (i.e. small inclusions) of unsuitable land (Forest Plan III-3, III-9, and III-15). Some of these inclusions are non-forested but, in the Middle East Fork most of these unsuitable lands include forest lands where fire exclusion has allowed Douglas-fir to encroach, tree growth is inherently slow or where droughty or rocky soils would make it difficult to restock the site in a timely manner. (PF-SILV-051, FEIS 3.5-4, 3.5-5, Forest Plan Note #207, 5/1987; Forest Plan Note #51, 4/1981).

In management areas 1, 2, and 3a, Alternative 2-Modified harvest treatment units 2, 6a, 6b, 10b, 10c, 12a, 15, 24, 26r, 27, 28, 30a, 34r, 40, 44b, 50, 121, 124, 125, 126, 130, 203, 245, 255, and 406 contain minor inclusions of unsuitable lands. Harvest treatment units 1, 3, 29, 29a, 37, 38, 45, 47, 51, 68r, 236, and 238 include higher proportions totaling approximately 700 acres of unsuitable land. In addition, approximately 1,030 acres of unsuitable lands (both forest and grasslands) would be managed through non-harvest treatments (PF-SILV-051). Together with treatments within management area 8b, Alternative 2-modified includes approximately 800 acres of lands not suited for timber production where harvest will be used as a tool to accomplish the project objectives.

### 4.3 DIRECT, INDIRECT AND CUMULATIVE IMPACT OF MEF UNSUITABLE LANDS AMENDMENT.

#### Direct, Indirect, and Cumulative Effects

The project related direct, indirect, and cumulative effects of these activities are as described throughout the FEIS and in Appendix A of this Record of Decision. Since the establishment of the Forest Plan in 1987, similar allowances for harvest within unsuitable lands have been made for three other projects totaling approximately 370 acres forest-wide (Forest Plan Monitoring and Evaluation Report, Fiscal Year 2004, pp 15 and 171). None of these have occurred within the MEF analysis area. Given the small total acreage treated and the widely dispersed nature of these activities in time and space, it is highly unlikely the environmental effects of the individual activities have or will interact cumulatively.

From the Forest Plan perspective, the individual and cumulative nature of these amendments will have an almost imperceptible effect on achieving the overall Forest Plan goals, objectives, and desired conditions forest-wide. While the amendments have and will allow for maintenance of desired forest structures and fuel reduction on individual sites, the total harvest treatments within unsuitable lands amount to only about 1,170 acres of the 1,577,900 acre Forest (0.07%) over the 18 year life of the current Forest Plan.

### 4.4 APPLICATION OF FSH 1926.51 DIRECTIVES NOT SIGNIFICANT CRITERIA

Our determination of whether this element of the proposed amendment is significant was done using the process in the Forest Service Planning Handbook, 1926.51 (<http://www.fs.fed.us/emc/nfma/index5.html>). The handbook states that changes to the land management plan that **are not significant** can result from four specific situations. This site-specific element of the amendment is compared to those situations below:

Changes to the Land Management Plan That are Not Significant	Alternative 2-Modified Unsuitable Lands Standard Amendment
<p>1. Actions that do not significantly alter the multiple-use goals and objectives for long-term land and resource management.</p>	<p>The unsuitable lands element of the amendment does not alter the long-term multiple-use goals and objectives for resource management in these management areas (within the project area or forest-wide). It does however, in the short-term and only within the treatment areas for this project, add emphasis to the fuel reduction and protection standards through the use of additional types of vegetative treatments, including harvest. Other standards within these Management areas are being met in support of the long term goals and objectives (ROD Section 8.1).</p> <p>The amendment affects a tiny portion of the Bitterroot National Forest (0.05 percent in the Middle East Fork area, 0.07 percent cumulatively). It is a short-term,</p>



	site-specific and project-specific amendment that will have no meaningful effect on overall Forest Plan goals, objectives, or outputs.
2. Adjustments of management area boundaries or management prescriptions resulting from further on-site analysis when the adjustments do not cause significant changes in the multiple-use goals and objectives for long-term land and resource management.	The unsuitable lands element of the amendment does not adjust management area boundaries. It does provide for more site-specific management prescriptions for this project to achieve multiple-use objectives, but would not result in significant changes in the overall multiple-use goals and objectives of the plan.
3. Minor changes in standards and guidelines.	The unsuitable lands element of the amendment is a minor change to Management Area standards when considered individually and cumulatively with other similar amendments (see above).
4. Opportunities for additional projects or activities that will contribute to achievement of the management prescription.	The unsuitable lands element of the amendment allows for the use of timber harvest and other vegetative manipulation methods to achieve objectives other than timber production on a limited basis in this project.

**4.5 CONCLUSION -- SIGNIFICANCE/NON-SIGNIFICANCE**

Based on consideration of the four factors identified in the Forest Service Planning Handbook, 1926.51, and considering the Forest Plan in its entirety, I have determined that the adoption of the unsuitable lands element of this amendment to the Bitterroot National Forest Plan is not significant. This amendment is fully consistent with, but further refines and clarifies the means to achieve, current Forest Plan goals and objectives.

# Land and Resource Management Plan

## Bitterroot National Forest

### 1987 Plan

#### Amendment # 26

---

##### Reason for Amendment:

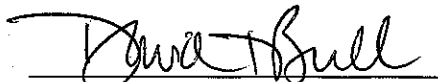
The Reason is to incorporate management direction in the land management plan that conserves and promotes recovery of Canada Lynx, by reducing or eliminating adverse effects from land management activities on National Forest System lands, while preserving the overall multiple-use direction in existing plan (Northern Rockies Lynx Management Direction, FEIS, Vol. p.1).

##### Amendment

Reference the Northern Rockies Lynx Management Direction FEIS and ROD as Amendment 26 to the 1987 Plan.

##### Link to documents:

<http://www.fs.fed.us/r1/planning/lynx.html>

  
\_\_\_\_\_  
DAVID T. BULL  
Forest Supervisor  
Bitterroot National Forest

11/30/07  
\_\_\_\_\_  
Date Signed:

## APPENDIX F

### FOREST PLAN AMENDMENT

Implementation of Alternative 4 will require a site-specific amendment to the Bitterroot Forest Plan (1987) {FEIS, pp. 1-11 to 1-13} to modify the following Forest Plan standards as they relate specifically to the Trapper Bunkhouse Project:

- Elk habitat effectiveness
- Forest-wide thermal cover
- Coarse woody debris

The requirement for a site-specific amendment to meet the Purpose and Need of the Trapper Bunkhouse project was disclosed in the scoping letter (PF-PUBLIC-012). The letter indicated the need for an amendment to modify the following standards: elk habitat effectiveness, forest-wide thermal cover, and snags. When the DEIS was released, it indicated that a site-specific amendment would be required to modify the following standards: forest-wide thermal cover and coarse woody debris. The FEIS noted the need for a site-specific amendment to modify the following standards: elk habitat effectiveness, forest-wide thermal cover, and coarse woody debris. The information in this Appendix compliments the analysis in the FEIS regarding these amendments and it organizes the information into one location

Section 1926.51 of the Forest Service Directives ([www.fs.fed.us/emc/nfma/index5.html](http://www.fs.fed.us/emc/nfma/index5.html)) provides guidance for determining what constitutes a “significant amendment” under NFMA. Based on this guidance, this site-specific Forest Plan amendment is not significant because it will not individually or cumulatively significantly alter the long-term relationship between levels of multiple-use goods and services originally projected; and, it will not have an important effect on the entire land management plan or affect land and resources throughout a large portion of the planning area during the planning period. The amendment modifies standards but only for this time and place. Therefore, it is not a long term change in the plan. The Bitterroot Forest Plan is currently being revised. The change will not have an important effect on the entire Forest Plan or affect land and resources throughout a large portion of the planning area during the planning period. It will affect the Trapper Bunkhouse area specifically (i.e. a small portion of the Bitterroot National Forest), and only for this project. The public has been notified of this amendment throughout the NEPA process.

For each site-specific Forest Plan standard modification, this Appendix is organized to:

- Describe the amendment element
- Explain the purpose and the need for the amendment
- Describe the direct, indirect and cumulative impact of the amendment
- Apply the Forest Service Handbook criteria for assessing whether or not the amendment is significant, and
- Display the conclusion on significance or non significance

## 1.0 ELK HABITAT EFFECTIVENESS (EHE)

### 1.1 SITE-SPECIFIC AMENDMENT PROPOSED FOR THIS STANDARD

The Bitterroot Forest Plan includes the following standard:

“Manage roads through the Travel Plan process to attain or maintain 50 percent or higher elk habitat effectiveness (Lyon 1983) in currently roaded third order drainages. Drainages where more than 25 percent of

roads are in place are considered roaded. Maintain 60 percent or higher elk habitat effectiveness in drainages where less than 25 percent of the roads had been built” (USDA Forest Service 1987, p. II-21).

The site-specific elk habitat effectiveness standard for the Trapper Bunkhouse project would read: “Existing elk habitat effectiveness will be maintained or improved within the Trapper Bunkhouse area.”

## **1.2 PURPOSE AND NEED OF ELK HABITAT EFFECTIVENESS STANDARD AMENDMENT**

### **Amendment Purpose**

The purpose of the site-specific modification is to recognize that the EHE standard is currently not being met in five third-order drainages in the Trapper Bunkhouse Project Area, and will continue not being met in those drainages. However, travel management restrictions proposed in Alternative 4 will improve EHE in four of the five drainages that currently do not meet the Forest Plan standard, and no negative effect to EHE will occur in any of the drainages.

### **Intent of the Plan**

The Forest Plan standard for elk habitat effectiveness (EHE) is to manage roads through the Travel Plan process to attain or maintain 50 percent or higher EHE in currently roaded drainages (those where more than 25% of the potential road system was in place in 1987), and 60 percent or higher EHE in drainages where less than 25% of the roads had been built (USDA Forest Service 1987, p. II-21). EHEs of 50% and 60% equate to 2 miles and 1 mile of open road per square mile, respectively (Lyon 1983). This standard supports the Forest Plan objectives of maintaining habitat to support viable populations of wildlife species and cooperating with the state of Montana to maintain the current level of big game hunting opportunities (USDA Forest Service 1987, p. II-5).

### **Need for the Amendment**

The Purpose and Need of the Trapper Bunkhouse project is not travel planning, however, some changes in road management are included in Alternative 4. Although none of the road changes will negatively affect EHE, and in fact, improvements to EHE will occur in six third-order drainages; five drainages will continue not to meet the EHE standard in the Forest Plan.

The DEIS did not state that a site-specific Forest Plan amendment would be needed for the EHE standard. It clearly showed in the analysis of potential effects of the alternatives that the EHE standard would not be met in five drainages in any of the alternatives, and it also showed that improvements to EHE would be made with both of the action alternatives.

## **1.3 DIRECT, INDIRECT, AND CUMULATIVE IMPACT OF TRAPPER BUNKHOUSE ELK HABITAT EFFECTIVENESS AMENDMENT**

### **Direct and Indirect Effects**

Alternative 4 would implement a number of changes to existing road use. Restrictions on approximately 11.1 miles of roads would change the status of those roads from open to closed for the purposes of EHE calculations, and would thus improve EHE percentages. These roads are listed in the Wildlife section of the FEIS (3.7) in Table 3.7-11. Other road use restrictions would not affect EHE percentages. Table 3.11-2 in the Recreation Section (3.11) of the FEIS contains a complete list of proposed road access changes.

The net effect of these changes would be to improve the existing EHE in six third-order drainages, and maintain the existing EHE in two third order drainage (see Table 3.7-10). The EHE would improve in four of the five drainages that currently do not meet the Forest Plan standard for EHE (Waddell-Bunkhouse, Lower Chaffin, Lower Trapper, and Little Trapper), although none of the four would reach the 50% minimum standard. Elk Habitat Effectiveness would also increase in two drainages that already meet this standard (Little Tin Cup and McCoy Creek).

Increasing EHEs by reducing open road densities in several drainages would make the small elk herds that inhabit the Leavens and Hart Gulch and Spoon/McCoy areas year-round less vulnerable to disturbance from motorized vehicles during the summer, and to mortality from hunters in the fall. Stress to elk resulting from noise created by motorized vehicles would decrease in some areas. This would tend to minimize the potential impacts to elk populations that could result from vegetative treatments that would reduce the amount of hiding cover under this alternative.

**Cumulative Effects**

Since the Forest Plan standard for EHE was implemented in 1987, many, but not all, of the third-order drainages on the Forest have been brought into compliance with the standard. There are five drainages in the Trapper Bunkhouse analysis area that are currently out of compliance. In spite of not complying with specific Forest Plan standards for EHE, the Forest Plan objective of maintaining the current (1987) level of big-game hunting opportunities has been achieved. The number of hunters, as well as the number of elk, continues to increase, and the general hunting season has remained at five weeks.

None of the ongoing or future projects listed in Appendix B to the FEIS will have a detrimental effect on EHE in any of the third-order drainages within the Project Area. We have added an elk security analysis (Hillis et al. 1991) to our environmental analysis protocol that has proven to be a better tool than EHE analysis for achieving the Forest Plan objective to maintain elk populations and hunting season opportunities in cooperation with the Montana Department of Fish, Wildlife and Parks. In summary, the proposed activities, in combination with past and reasonably foreseeable future actions in this analysis area, are not expected to cumulatively degrade the habitat effectiveness for elk.

There is no perceptible cumulative effect of this modification, in conjunction with the course woody debris and forest-wide thermal cover modifications to the Forest Plan proposed in this project.

**1.4 APPLICATION OF FSH 1926.51 DIRECTIVES NOT SIGNIFICANT CRITERIA**

Our determination of whether this element of the proposed amendment is significant was done using the process in the Forest Service Planning Handbook, 1926.51 (<http://www.fs.fed.us/emc/nfma/index5.html>). The Handbook states that changes to the land management plan that are **not significant** can result from four specific situations. This site-specific element of the amendment is compared to those situations below:

Changes to the Land Management Plan That are Not Significant	Alternative 4 - Elk Habitat Effectiveness Standard Amendment
1. Actions that do not significantly alter the multiple-use goals and objectives for long-term land and resource management.	The EHE amendment does not alter the multiple-use goals and objectives for long-term land and resource management. In fact, the amendment will continue to provide habitat to support a viable population of elk and big game (viability is not a concern), and will meet the objective of cooperating with the Montana Department of Fish, Wildlife, and Parks to maintain the current level (1987) of big-game hunting

Changes to the Land Management Plan That are Not Significant	Alternative 4 - Elk Habitat Effectiveness Standard Amendment
	<p>opportunities.</p> <p>The amendment affects five drainages on the Bitterroot National Forest that currently do not meet the standard, and though four of these drainages will have improvements, none will meet the standard. It is a short-term, site-specific, and project-specific amendment that will have no effect on meeting Forest Plan objectives or outputs.</p>
<p>2. Adjustments of management area boundaries or management prescriptions resulting from further on-site analysis when the adjustments do not cause significant changes in the multiple-use goals and objectives for long-term land and resource management.</p>	<p>The EHE amendment does not adjust management area boundaries or management prescriptions. It does provide for more site-specific application by allowing for EHE to remain below minimum standards on a site specific basis where population objectives have been met and exceeded.</p>
<p>3. Minor changes in standards and guidelines.</p>	<p>The EHE amendment is a one-time, site-specific, and project-specific change to allow EHE to remain below the standard in five third order drainages.</p>
<p>4. Opportunities for additional projects or activities that will contribute to achievement of the management prescription.</p>	<p>For the Trapper Bunkhouse project, meeting EHE standards can not be achieved while allowing reasonable access to the Bitterroot National Forest for the public as shown in the alternative considered but not in detail (FEIS, Section 2.5.3). The purpose and need of the Trapper Bunkhouse project is consistent with the goals and objectives of the Forest Plan. Even by not meeting the EHE standard in the five third order drainages, this project will still meet the Forest Plan goals and objectives related to elk (viable populations and cooperating with State goals). These are the goals that the EHE requirement was intended to support.</p>

**1.5 CONCLUSION -- SIGNIFICANCE/NON-SIGNIFICANCE**

Based on consideration of the four factors identified in the Forest Service Planning Handbook, 1926.51, and considering the Forest Plan in its entirety, the adoption of the elk habitat effectiveness element of this amendment to the Bitterroot National Forest Plan is not significant. This amendment is fully consistent with, but further refines and clarifies the means to achieve, current Forest Plan goals and objectives.

**2.0 FOREST-WIDE THERMAL COVER**

**2.1 SITE-SPECIFIC AMENDMENT PROPOSED FOR THIS STANDARD**

The Bitterroot Forest Plan includes the following standard (2.e.(12), USDA Forest Service 1987, p. II-21):“Big-game cover/forage relationships, as described in Guides for Elk Habitat Objectives (USDA 1978), will be a consideration in planning timber management activities.”

The Forest Plan Record of Decision (USDA Forest Service 1987, p. 8) more specifically states:

“Winter range will be managed to provide diversity of forage and hiding cover with at least 25 percent of the area in thermal cover at all times.”

The site-specific thermal cover standard for the Trapper Bunkhouse project would read:

“Existing thermal cover will be maintained within the Trapper Bunkhouse treatment units to the extent it does not conflict with meeting the project’s objectives.”

## **2.2 PURPOSE AND NEED OF THERMAL COVER STANDARD AMENDMENT**

### **Amendment Purpose**

The purpose of this site-specific amendment is to recognize and address the conflicting nature of the Forest Plan’s fuels/fire protection goals, objectives and standards for the wildland-urban interface and overlapping winter range thermal cover standard defined in the Forest Plan Record of Decision (USDA Forest Service 1987, p. 8). {FEIS, p. 1-12}

The LRMP, Appendix M-1, directs that fire programs be compatible with the role of fire in ecosystems, including:

- Using prescribed fire to maintain healthy ecosystems that meet land management objectives.
- Emphasizing fire ecology when applying prescribed fire, and using fire ecology reference documents.

Attempting to integrate an understanding of fire’s role in regulating stand structure into development of silvicultural prescriptions.

### **Intent of the Plan**

The purpose of the 1987 Forest Plan Record of Decision thermal cover requirement was to provide habitat that, at the time, was believed to be necessary to meet the Forest Plan objectives of maintaining habitat to support viable populations of wildlife species and cooperating with the state of Montana to maintain the current level of big game hunting opportunities (USDA Forest Service 1987, p. II-5).

### **Need for the Amendment**

- Approximately 9% of the big game winter range in the Trapper Bunkhouse Project Area currently provides thermal cover, which means the Project Area does not meet the 25% requirement. Thermal cover would be reduced to approximately 6% with the implementation of Alternative 4. Mapping indicates that portions of 10 treatment units (Units 3, 5, 23, 26, 30, 32, 49, 50, 78, and 79) are classified as thermal cover, totaling about 377 acres. In order to qualify as thermal cover, stands must have coniferous trees 40 feet or taller and have an average crown closure of 70% or more (USDA Forest Service 1987, p. VI-41). This site-specific amendment is needed because in order to meet Forest Plan direction related to fire and the Purpose and Need of the Trapper Bunkhouse project, thermal cover (which currently does not meet the requirement) will be slightly reduced. Treatments will reduce the crown closure below 70% on 377 acres in 10 units within the wildland-urban interface. Thermal cover after treatment will go from 9% to 6% of the winter range within the project area.

---

## **2.3 DIRECT, INDIRECT, AND CUMULATIVE IMPACT OF TRAPPER BUNKHOUSE FOREST-WIDE THERMAL COVER AMENDMENT**

### **Direct and Indirect Effects**

The effects to thermal cover of Alternative 4 and this amendment are analyzed in the FEIS {p. 3.7-22 to 3.7-33}.

The direct effect of Alternative 4 is that 377 acres of thermal cover will be reduced through fuel reduction treatments. The open grown ponderosa pine and mixed Douglas-fir/ponderosa pine stands on the warm-dry and moderately warm-dry slopes probably never supported enough trees to qualify as thermal cover, and certainly in historic landscapes, thermal cover did not occupy 25 percent of this elk winter range.

Research conducted since the Forest Plan was signed has questioned the necessity of thermal cover for survival of wintering elk (Cook, et al. 1998). Researchers found “no significant, positive effect of thermal cover on the condition of elk during any of the six experiments. In contrast, dense cover provided a costly energetic environment, resulting in significantly greater over-winter mass loss, fat catabolism, and (in one winter) mortality.” Wintering elk survived and retained body weight better in open areas than in thermal cover. For this reason, whether thermal cover is necessary for individual elk survival or elk population viability seems open to question. For example, in the Middle East Fork project area, elk numbers are above State goals, in spite of less than 25% thermal cover on the north side of the river.

This means that it is doubtful that the reduction in 377 acres of thermal cover through treatments in Alternative 4 will have a quantifiable effect on observed elk population numbers in the Trapper Bunkhouse project area. The reduction in thermal cover is not expected to impact the Forest’s ability to meet the State’s elk objectives. We continue to meet or exceed the State’s elk objectives in most herd units across the Forest, although numbers in this area have not met the increased objectives established under the 2004 Elk Management Plan (Montana Fish, Wildlife and Parks 2004). The Montana Department of Fish, Wildlife, and Parks has concurred that the loss of thermal cover, through treatments in the Trapper Bunkhouse Project Area, should not effect elk objectives (USDA Forest Service 1987, p. II-5) (PF-WILD-121).

### **Cumulative Effects**

Since the Forest Plan was signed, it has become apparent that many portions of winter ranges in the Bitterroot are incapable of producing and/or sustaining the high canopy closures that provide thermal cover. The vegetative communities on these warm, dry sites were typically dominated by grasses, forbs, shrubs, and relatively open grown ponderosa pine and Douglas-fir/ponderosa pine stands that rarely supported enough trees to qualify as thermal cover. Certainly, in historic landscapes, thermal cover did not occupy 25 percent of elk winter ranges in the Bitterroot drainage. On the other hand, the moister north-facing slopes and riparian areas have retained and provide thermal cover. Most of the thermal cover in winter range that has been identified in the Trapper Bunkhouse Project Area is on north slopes. About 9% of the winter range area is currently classified as thermal cover (PF-WILD-081).

As stated in the thermal cover analysis above, research has cast doubt on the necessity for thermal cover as a major component of elk winter range. The generally upward trend of elk numbers seen on winter ranges in the Trapper Bunkhouse Project Area and across the Forest indicates that the recent downward trend in thermal cover acres across the Forest, and on adjacent private lands, resulting from fires, timber harvest, bark beetle attacks, and thinning to create defensible space around structures in the wildland-urban interface, may have had a beneficial effect on the health of the elk herd, presumably due to increased forage production.

In most hunting districts in the Bitterroot, the 2004 Elk Management Plan (Montana Fish, Wildlife and Parks 2004) objective is to stabilize or reduce the number of elk on winter ranges. Therefore, the slight reduction in thermal cover resulting from management actions with the Trapper Bunkhouse project will have negligible



effect on thermal cover from a Forest-wide perspective, and will not likely have a measurable effect on the elk population in the Trapper Bunkhouse Project Area or the Bitterroot Valley. Therefore, this amendment will contribute toward meeting the Forest Plan objective cooperate with the States of Montana and Idaho to maintain their hunting opportunity and elk population goals. Elk numbers are so high in the Bitterroot drainage and across the range of elk in Montana and the rest of western North America that there is no question or concern for elk viability.

Since the establishment of the Forest Plan in 1987, similar amendments of the thermal cover standard for the Bitterroot National Forest have been made for the Burned Area Recovery (2001) and Middle East Fork (2006) projects. Together with this amendment, the cumulative effects of amending the thermal cover standard will have an imperceptible effect when considered at the Forest scale because the change in thermal cover is not expected to adversely affect the ability to produce elk in this Trapper Bunkhouse Project Area, and the Forest objective and goals are expected to continue to be met.

There is no perceptible cumulative effect of this modification, in conjunction with the course woody debris and elk habitat effectiveness modifications to the Forest Plan proposed in this project.

## 2.4 APPLICATION OF FSH 1926.51 DIRECTIVES NOT SIGNIFICANT CRITERIA

Our determination of whether this amendment is significant was done using the process in the Forest Service Planning Handbook, 1926.51 (<http://www.fs.fed.us/emc/nfma/index5.html>). The handbook states that changes to the land management plan that **are not significant** can result from four specific situations. This site-specific amendment is compared to those situations below:

Changes to the Land Management Plan That are Not Significant	Alternative 4 - Thermal Cover Standard Amendment
<p>1. Actions that do not significantly alter the multiple-use goals and objectives for long-term land and resource management.</p>	<p>The thermal cover amendment does not alter the multiple-use goals and objectives for long-term land and resource management. In fact, the amendment will continue to provide habitat to support a viable population of elk and big game (viability is not a concern) and will meet the objective of cooperating with the Montana Department of Fish, Wildlife, and Parks to maintain the current level (1987) of big-game hunting opportunities.</p> <p>The amendment affects approximately 30% of the existing thermal cover in the Trapper Bunkhouse Project Area, representing a very small reduction on the Bitterroot National Forest. It is a short-term, site-specific, and project-specific amendment that will have no effect on meeting Forest Plan objectives or outputs.</p>
<p>2. Adjustments of management area boundaries or management prescriptions resulting from further on-site analysis when the adjustments do not cause significant changes in the multiple-use goals and objectives for long-term land and resource management.</p>	<p>The thermal cover amendment does not adjust management area boundaries or management prescriptions. It does provide for more site-specific application by allowing for thermal cover reduction on a site-specific basis where population objectives have been met and exceeded.</p>

Changes to the Land Management Plan That are Not Significant	Alternative 4 - Thermal Cover Standard Amendment
3. Minor changes in standards and guidelines.	The thermal cover amendment is a one-time, site-specific, and project-specific change to allow reduction in thermal cover in 10 units on winter range.
4. Opportunities for additional projects or activities that will contribute to achievement of the management prescription.	For the Trapper Bunkhouse project, maintaining thermal cover cannot be achieved at the same time on the same piece of ground while meeting the fuel reduction and restoration of fire adapted ecosystem objectives. The project’s purpose and need is consistent with the goals and objectives of the Forest Plan. Even by not meeting the 25% requirement, the project will still meet the Forest Plan goals and objectives related to elk (viable populations and cooperating with State goals). These are the goals that the 25% requirement was intended to support.

**2.5 CONCLUSION -- SIGNIFICANCE/NON-SIGNIFICANCE**

Based on consideration of the four factors identified in the Forest Service Planning Handbook, 1926.51, and considering the Forest Plan in its entirety, the adoption of the forest-wide thermal cover amendment to the Bitterroot National Forest Plan is not significant. This amendment is fully consistent with, but further refines and clarifies the means to achieve, current Forest Plan goals and objectives.

**3.0 COARSE WOODY DEBRIS**

**3.1 SITE-SPECIFIC AMENDMENT PROPOSED FOR THIS STANDARD**

The Bitterroot Forest Plan includes the following Management Area (MA) standards relevant to coarse woody debris and the Trapper Bunkhouse project:

MA 1, 2, 3a: (USDA Forest Service 1987, pp. III-6, f (4); III-12, f (3); and III-19, f (4))

- Site preparation methods will assure the retention of modest levels of organic matter, including woody materials 8 inches or less in diameter, to provide nutrient and ectomycorrhizal levels necessary for maintaining growth rates; while still providing an adequate mineral base for seed germination and reduction of grass competition. On dry and harsh sites, at least 10 to 15 tons per acre of residual debris is needed (Harvey, et al 1981a & 1981b; Harvey, 1982).

MA 2 (USDA Forest Service 1987, p. iIII-13, j (2))

- Natural and activity fuels will be treated to reduce slash depth below 1 ½ feet to provide for big-game movement. About 25 tons/acre of down trees larger than 6-inch diameter will be left for nongame habitat if available.

The site-specific coarse woody debris standard to be applied for the Trapper Bunkhouse project would read:

“To maintain soil productivity and wildlife habitat while meeting fuel reduction purpose and needs, coarse woody debris (material greater than 3 inches in diameter) will be left from designated leave trees, both standing and down, and from breakage of limbs and broken tops that will occur during harvest at or above the minimum levels identified in the following table. Material will be evenly distributed on each acre. At least minimum levels will also be retained after burn treatments. Fire Groups are described in the DEIS, Chapter 3, Section 3.3.3 C.

*Proposed Coarse Woody Debris Standard by Fire Group*

<b>Fire Group</b>	<b>Coarse Woody Debris</b>
2, 4	5-10 tons/acre
6	10-20 tons/acre
7, 8, 9	8-24 tons/acre

Wood larger than 15 inches in diameter will not be intentionally ignited during hand lighting. It is understood that once the fire is lit by hand crews, the fire may burn into large CWD and combust various pieces.”

**3.2 PURPOSE AND NEED OF WOODY DEBRIS STANDARD AMENDMENT**

**Amendment Purpose**

This proposed site-specific standard amendment is intended to apply the best available science to the Trapper Bunkhouse project’s coarse woody debris design in support of the Forest Plan’s and project’s goals and objectives. The proposed ecologically-based standard would replace, for this project, the various management area standards in the 1987 Forest Plan (USDA Forest Service 1987, pp. III-6, f(4); III-12, f.(3); and III-19, f(4)).

**Intent of the Plan**

Pertinent Forest Plan Goals (USDA Forest Service 1987, pp. II-3, II-4)

- Maintain soil productivity
- Design fire management programs that are consistent with other resource goals (Appendices K and M)

Pertinent Forest Plan Objectives (USDA Forest Service 1987, pp. II-6, II-7)

- Design management activities to maintain soil productivity

**Need for the Amendment**

Since the Forest Plan was signed, additional science has become available regarding the amount of coarse woody debris that would be expected in different habitat type groups (Graham et al., 1994; Brown et al, 2000), which provides more refined guidelines for meeting the Forest Plan goals and objectives. The amounts prescribed in the Forest Plan are sometimes contradictory to each other (i.e. 10 to 15 tons/acre in one standard and 25 tons/acre in another; sometimes referring to the same piece of ground). In addition, to reduce fire intensity (flame length and rate of spread), heavy amounts of coarse woody debris should not be left in stands in the Trapper Bunkhouse Project Area.

### 3.3 DIRECT, INDIRECT, AND CUMULATIVE IMPACT OF TRAPPER BUNKHOUSE WOODY DEBRIS AMENDMENT

#### Direct and Indirect Effects

All harvest prescriptions for the Trapper Bunkhouse project would leave a portion of the existing stand on the site. Yarding will be either whole tree or leave tops attached. Coarse woody debris (CWD) (material greater than 3 inches in diameter) will be left from designated leave trees, both standing and down, and from breakage of limbs and broken tops that will occur during harvest. The amounts listed for each Fire Group (see table below) will maintain future soil productivity. Information concerning coarse woody debris is outlined in PF-FIRE-027.

*Coarse Woody Debris Requirements for Soil Productivity*

Fire Group	CWD
2 and/or 4 = Warm, Dry Ponderosa Pine and Douglas-fir Habitat Types	5 to 10 tons/acre
6 = Cool, Dry and Moist Douglas-fir Habitat Types	10 to 20 tons/acre
7, 8, and/or 9 = Cool Lodgepole Pine and Lower Subalpine Fir Habitat Types	8 to 24 tons/acre

The proposed fuel treatments are anticipated to leave slash on the ground through the winter and into late summer/fall before prescribed burning will be completed. This will provide opportunity for the nutrients in the slash to be leached into the soil.

#### Cumulative Effects

The CWD requirements for the Trapper Bunkhouse project are discussed in Section 3.6.4.B in the FEIS, and displayed in Table 3.6-3 of the FEIS. The CWD requirements are based on the most current science which varies from the amounts shown in the current Forest Plan. The amended CWD requirements will encompass less than 0.3 percent of the Bitterroot National Forest (based on the maximum treatment area of 5,827 acres in Alternative 4). Since the establishment of the Forest Plan in 1987, two other Forest Plan amendments regarding CWD have been made for the Burned Area Recovery (2001) and Middle East Fork (2006) projects. The Burned Area Recovery Project amendment was necessary to address soil and site productivity concerns related to salvage following large wildfires, and was also based on similar current science. Burned Area Recovery treatments comprised approximately 0.6 percent of the Bitterroot National Forest. The Middle East Fork Project amendment (0.3 percent of the Forest) was needed to ensure CWD retention for fuel reduction treatments were based on current science. These projects, in combination with the Trapper Bunkhouse project, cumulatively amount to approximately 1.2 percent of the Forest. The CWD amendment for this project will not have appreciable cumulative effects at the site or Forest scale.

Cumulatively, by implementing this site-specific standard for CWD, the Trapper Bunkhouse Project Area is expected to have appropriate levels of CWD by fire group, over time, fully supporting the Forest goals and objectives.

There is no perceptible cumulative effect of this modification, in conjunction with the site-specific thermal cover and elk habitat effectiveness modifications to the Forest Plan proposed in this project.

### 3.4 APPLICATION OF FSH 1926.51 DIRECTIVES NOT SIGNIFICANT CRITERIA

Our determination of whether this amendment is significant was done using the process in the Forest Service Planning Handbook, 1926.51 (<http://www.fs.fed.us/emc/nfma/index5.html>). The handbook states that changes to the land management plan that **are not significant** can result from four specific situations. This site-specific amendment is compared to those situations below:

Changes to the Land Management Plan That are Not Significant	Alternative 4 - Coarse Woody Debris Standard Amendment
<p>1. Actions that do not significantly alter the multiple-use goals and objectives for long-term land and resource management.</p>	<p>The coarse woody debris amendment does not alter the multiple-use goals and objectives for long-term land and resource management. The amendment will continue to work toward maintaining soil productivity by replacing the current Forest Plan Standard with one developed using more recent studies.</p> <p>The amendment affects a small amount of the Bitterroot National Forest (less than 1 percent). It is a short-term, site-specific, and project-specific amendment that will have no effect on Forest Plan objectives or outputs.</p>
<p>2. Adjustments of management area boundaries or management prescriptions resulting from further on-site analysis when the adjustments do not cause significant changes in the multiple-use goals and objectives for long-term land and resource management.</p>	<p>The coarse woody debris amendment does not adjust management area boundaries. It provides for more site-specific, ecologically-based management prescription applications by requiring a range of coarse woody debris based on habitat types.</p>
<p>3. Minor changes in standards and guidelines.</p>	<p>The coarse woody debris amendment is a minor change to management area standards based on more recent science.</p>
<p>4. Opportunities for additional projects or activities that will contribute to achievement of the management prescription.</p>	<p>The coarse woody debris amendment applies more recent science in the implementation of management prescriptions which provides an improved, ecologically based means of retaining coarse woody debris.</p>

### 3.5 CONCLUSION -- SIGNIFICANCE/NON-SIGNIFICANCE

Based on consideration of the four factors identified in the Forest Service Planning Handbook, 1926.51, and considering the Forest Plan in its entirety, the adoption of the coarse woody debris amendment to the Bitterroot National Forest Plan is not significant. This amendment is fully consistent with, but further refines and clarifies the means to achieve, current Forest Plan goals and objectives.