

CHAPTER 1 - PURPOSE OF AND NEED FOR ACTION

INTRODUCTION

This revised environmental assessment (EA) is being prepared to address the potential environmental effects of proposed timber harvesting and associated activities in the Darroch Creek, Bear Creek, and North Fork Bear Creek (Eagle Creek area) drainages located in the Absaroka Mountain Range near Gardiner, Montana. This project is known as the Darroch-Eagle Creek Timber Sale (initially called the Jardine Timber Sale) and is named for the two general areas in which the project is located. The information in this EA will be used in making the decision on a course of action for the proposed timber harvest, reforestation, and road development. The analysis in this EA complies with provisions of the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations, and the National Forest Management Act (NFMA).

The purpose of the NEPA process is to help public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore and enhance the environment (40 CFR 1500.1(c)). The CEQ regulations for implementing NEPA direct the reduction of paperwork and delay by providing provisions such as:

- Discussing only briefly issues other than significant ones (40 CFR 1500.4(c)); and
- Using the scoping process, not only to identify significant environmental issues deserving of study, but also to de-emphasize insignificant issues (40 CFR 1500.4(g)).

The objectives of the project are to: (a) contribute to the repayment of borrowed funds that were needed to complete the acquisition of the two remaining sections of private inholdings in the Taylor Fork area within the Gallatin National Forest (GNF) previously owned by Big Sky Lumber Company (BSL) by using timber receipts; and (b) contribute toward providing a supply of wood products from the National Forest.

If implemented, value from the Darroch-Eagle Creek Timber Sale would contribute toward repayment of borrowed LWCF funds that were previously allocated for a purchase project on another National Forest in Montana. It was necessary to borrow these funds in order to achieve full implementation of the Gallatin Land Consolidation Act of 1998 (“Gallatin II”). Congress recently passed the Appropriations Act of 2004 (PL 101-108) with a Section 333- Rider “Implementation of Gallatin Land Consolidation Act” allowing for the Gallatin National Forest to borrow the remaining outstanding funds to complete this land exchange and allow for a five-year repayment time (December 2008) via timber receipts from the Gallatin and other Eastside Forests in Montana, the sale of Gallatin National Forest Lands, and/or the use of excess NFF receipts from any National Forest in Montana. The acquisition of the final two BSL sections was completed on December 15, 2003.

BACKGROUND

In May of 1999, Gallatin National Forest Supervisor David P. Garber signed a “Decision Notice (DN) and Finding Of No Significant Impact (FONSI)” to harvest an estimated 2.1 million board feet (MMBF) of timber from about 266 acres on national forest lands within the Darroch Creek, Bear Creek, and North Fork Bear Creek drainages located in the Absaroka Mountain Range near Gardiner, Montana. This project is known as the “Darroch-Eagle Creek Timber Sale. The objectives of the project were to: (a) help facilitate acquisitions of private inholdings in the Taylor Fork area within the Gallatin National Forest (GNF) owned by Big Sky Lumber Company (BSL) by using timber receipts; and (b) contribute toward providing a supply of wood products from the National Forest.

Timber harvest would occur on forested land classified as suitable for timber management by the Gallatin National Forest Land and Resource Management Plan (Forest Plan, 1987).

As authorized and directed by the Gallatin Land Consolidation Act (P.L. 105-267, 10/1998) the Darroch-Eagle Creek Timber Sale was one of about a dozen timber sale opportunities identified to generate revenue that, in turn, would be used as a federal exchange asset to help acquire 4 sections of private land within the Taylor Fork drainage of the Forest. In general the Gallatin Land Consolidation Act (the Act) facilitated the acquisition of 55,000 acres of checkerboard railroad grant lands, currently held by Big Sky Lumber Company (BSL), consolidating ownership in four mountain ranges of the Gallatin National Forest. Under the Act, a mix of federal exchange assets were to be used including federal lands, purchase funds, and tripartite timber receipts of about \$4.5 million to come from timber sales offered on the Gallatin and other eastside Montana national forests. This payment was to be made in full to BSL by December of 2003. For more information on the overall land consolidation effort refer to the USDA Forest Service “1998 Report To Congress and Legislative Environmental Impact Statement” (September 1998).

In July of 1999, Bear Creek Council and Native Ecosystems Council appealed Supervisor Garber’s decision for the Darroch-Eagle Creek Timber Sale to the Regional Forester for the Forest Service Northern Region requesting that the decision be remanded and an EIS prepared. In August of 1999, the Regional Forester (Appeals Deciding Officer) affirmed the Forest Supervisor’s decision to proceed with the timber sale and denied appellants’ requested relief. Bear Creek Council and Native Ecosystems Council (plaintiffs) subsequently filed suit in November of 1999 with the United States District Court, Montana (Cause No. CV 99-160-BLG-JDS) alleging violations of the National Environmental Policy Act (NEPA), the National Forest Management Act (NFMA), and the Endangered Species Act (ESA). In July of 2001, the District Court found in favor of the Forest Service. Upon the decision of the District Court, the Darroch-Eagle Timber Sale was subsequently advertised and awarded on August 29, 2001.

In August of 2001, plaintiffs filed a notice of appeal to the 9th Circuit Court of Appeals in San Francisco continuing to challenge two aspects of the timber sale decision. First, they argued that there was a violation of NFMA and NEPA in amending the Forest Plan’s road density standard. Second, they argued that ESA was violated for failing to consider the presence of a nearby sheep grazing allotment when evaluating the effects of timber harvest on grizzly bears. No activity was begun on the timber sale pending the outcome of the appeal.

On September 16, 2002, the 9th Circuit Court issued its opinion in favor of plaintiffs thus reversing the District Court’s grant of summary judgment to the Forest Service. Timber harvest and road construction associated with the Darroch-Eagle Creek Timber Sale was enjoined until the Forest Service remedied two deficiencies the court found in complying with NEPA and ESA. In summary, the court concluded that:

1. The environmental analysis conducted for the timber sale did not fully comply with NEPA because the Forest Service did not analyze what, if any, environmental impacts the Darroch-Eagle road density amendment to the Forest Plan might have in combination with contemplated road density amendments for other Gallatin Land Consolidation Act timber sales (Opinion at page 13951).
2. The biological assessment (BA) prepared did not fully comply with ESA because the BA and administrative record did not provide adequate support for selecting the bear management subunit as the appropriate analysis area to address the potential effects to the threatened grizzly bear (Opinion at 13962).

A revised EA and amended Biological Assessment was submitted for public comment in November of 2002. This revision of the Darroch-Eagle Creek Timber Sale Environmental Assessment and amended Biological Assessment was produced to address the above deficiencies. This document incorporated by reference the Darroch-Eagle Creek Timber Sale Environmental Assessment (March 1999), hereafter referred to as “EA”, and all associated documentation contained in the administrative record for Forest Supervisor David P. Garber’s May 1999 decision, except where noted.

Upon receiving comments from the public on the first revision of the EA, the need to update the entire analysis, which was completed in 1999, became apparent and a subsequent decision was deferred. In order to assure the public that we considered current resource conditions, current status of sensitive and T&E species, and the cumulative effects of implementing the project at this time a decision was made to revise the entire EA, Biological Assessment (BA), and Biological Evaluation (BE). The newly revised EA would incorporate the original EA, BA, and BE, the revised EA and BA, as well as any new information and findings into one newly revised EA. Although the majority of the resource conditions have not changed significantly since 1999, there are additional considerations that will be addressed in the revised EA.

In November of 2003, legislation was passed by Congress “Department of the Interior and Related Agencies Appropriations Act of 2004” (PL 101-108) including a key rider- Section 333- “Implementation of Gallatin Land Consolidation Act”, sponsored by Conrad Burns. This new legislation enable the Forest Service to acquire the two remaining sections of “BSL” land in the Taylor Fork area of the Gallatin National Forest and thereby fully implement the Gallatin Land Consolidation Act of 1998.

As of November 2003, two of the four BSL sections had been acquired (Sections 33 & 5) through mainly the exchange of timber receipts over the past five years. Two final BSL sections (Sections 3 & 9) remained to be acquired. Binding agreements with owners required the Forest Service to make full payment and complete acquisition of these lands by December 31, 2003. For several reasons, the Forest Service did not have sufficient timber receipts generated/earned to meet this requirement. Therefore, with the help of the Montana Delegation, the Section 333- rider was introduced and passed, authorizing the borrowing of Land and Water Conservation Funds (LWCF) earmarked for a previously approved purchase project on another National Forest in Montana, in order to complete the final transaction of this land acquisition in a timely manner. The final payment of \$3.5 million (including interest) to the owners consisted of \$0.7 million in timber receipts along with the borrowed LWCF funds of \$2.8 million. The recently passed legislation requires that the Forest Service reimburse the borrowed LWCF funds within five years (December 2008) via timber receipts from the Gallatin or other Eastside Forests, the sale of Gallatin National Forest Lands (five such parcels have been identified for possible sale), and/or the use of National Forest Fund (NFF) receipts from timber sales, special used permits, and other types of receipts from any National Forest in Montana. The acquisition of the final two BSL sections was completed on December 15, 2003.

As of December 2003 the purchaser of the Darroch-Eagle Creek Timber Sale (RY Timber, Inc.) still has monetary value in this sale and has chosen, as of this time to retain the rights of purchase. Depending on the outcome of this revised analysis, the Forest Service or the Purchaser has the ability to terminate the timber sale contract at any time. Alternative D-Modified is the alternative that is currently under contract.

PROPOSED ACTION/PURPOSE AND NEED

The Forest Service proposes to harvest timber and conduct other associated activities in the Darroch Creek, Bear Creek, and North Fork Bear Creek drainages, Gardiner Ranger District, Park County, Montana. The proposed project is located within the Bear Creek watershed and is about 4-6 miles northeast of Gardiner, Montana, in T8S, R9E, Sections 25-27, 31, 32, 34, and 35, P.M., MT. Refer to Map 1-1. Map E-1 is a more detailed map of the proposal. If this project is approved, the sale is scheduled to begin implementation in 2004. Refer to Table 2-2 in Chapter 2-7 for a schematic of the estimated timeframe for this project. Based on more detailed field investigations during the 1998 field season, the current Proposed Action was modified slightly from that described in the May 20, 1998, scoping letter sent to the public. The current Proposed Action consists of the following components:

Timber Harvest and Reforestation

Timber harvest and reforestation is proposed on a maximum of about 449 acres of forestland classified as suitable for timber management by the Gallatin Forest Plan (1987). This proposal would produce as much as 3.4 million board feet (MMBF) of timber from live and insect-killed or damaged timber within the Bear Creek drainage. In order to maximize revenue from this sale (see Purpose/Need statement below), the sale proposal consists primarily of sawtimber, which currently has the greatest market value compared to other wood products. This is consistent with Planning Criterion 15 (See Chapter 2, *Development Of Alternatives*). However, once purchased, the timber may be marketed by the purchaser as sawlogs, pulpwood, or other wood products.

Harvest prescriptions for the identified cutting units include silvicultural treatments that remove approximately 60% to 80% of the mature and overmature lodgepole pine, Douglas-fir, spruce, or subalpine fir (depending on the forest type) from the identified cutting units. Methods used to remove the timber include tractor and cable systems. As per the Timber Sale Contract Provision (CT6.316# Limited Operating Period) no contract related activities would be permitted in the Darroch Creek subdivision of the sale from December 1 to May 1 of each year. In the Eagle Creek subdivision, contract related activities would be prohibited from October 16 to June 30 of each year (units #14 and #15). Harvest

related activities would continue for up to three years. The harvest operations would be authorized and controlled via a standard Forest Service timber sale contract administered by the Forest Service.

Slash treatment and mechanical site preparation for reforestation of the harvested stands would be conducted after the harvest operation, as needed. Methods would include lopping, slashing, and mechanical trampling and piling on the gentler slopes (tractor ground) and lopping and yarding entire trees to landings on the steeper slopes (cable ground). Slash piles will be burned. Some areas will allow for the public gathering of firewood prior to the burning of piles. Natural regeneration is planned for up to 339 acres and artificial regeneration (planting of nursery tree stock - a diversity of native species) would occur on up to 110 acres. If monitoring indicates natural regeneration is not meeting stocking standards and legal requirements, then planting would be conducted to augment natural methods.

The Darroch-Eagle Creek Timber Sale proposal was selected for evaluation as part of the BSL land exchange effort because the area consists of mostly roaded lands which have been managed for timber production in the past and would be consistent with the Planning Criteria for all Timber Harvest Rights Identified for Exchange." *Refer to Chapter 2-5, Development Of Alternatives* for a description of these criteria and more details on how the proposal was developed.

One purpose of the proposed timber harvest is to generate revenue, which will contribute to paying back funds that were borrowed from LWCF, in order to complete the Gallatin Land Consolidation Act by the acquisition of the remaining two sections of BSL land within the Taylor Fork drainage, as identified in the July 29, 1998, Option Agreement. This acquisition was completed on December 15, 2003.

In 1998, the Congress passed, and the President signed, legislation (S. 1719/H.R. 3381) to authorize this exchange. In the exchange, the public would acquire 55,000 acres of BSL land, consolidating ownership in four mountain ranges of the Gallatin NF. A mix of federal lands, timber receipts, and purchase funds are identified for exchange. The Forest Service will use tripartite timber receipts from the sale of a targeted \$4.5 million of value (approximately 20 to 25 MMBF) to acquire BSL lands of equal value in the Taylor Fork drainage. The timber sales will be primarily on the Gallatin NF, but receipts from other eastside Montana national forests may also be used, as needed. For various reasons the Forest Service did not have sufficient timber receipts to meet the requirements of this exchange by December of 2003. With the help of the Montana Delegation, new legislation was passed, allowing the Forest Service to borrow LWCF funds from a purchase project on another forest for a period of up to five years in order to complete the final phase (Taylor Fork Sections 3 & 9) of the Gallatin Land Consolidation Act

For more information on the objectives for land acquisition, refer to the USDA Forest Service "Annual Report to Congress as Directed in the Gallatin Range Consolidation and Protection Act," May 1995.

Another purpose for this timber harvest proposal is to contribute toward providing a flow of wood products from National Forest lands identified as "suitable" for timber production (Forest Plan, p. II-1). The forested areas being considered for harvest are identified as productive forest lands available for timber harvest provided grizzly bear habitat objectives are met (FP, pp. III-40 to III-43). The Gallatin Forest Plan contains a management goal to "provide a sustained yield of timber products and improve the productivity of timber growing lands" (FP, p. II-1

The purpose of site preparation activities (lopping, trampling, piling, and mechanical site preparation) is to prepare harvest units for natural and artificial reforestation. The purpose of reforestation is to quickly restock harvested areas with growing trees to maintain slope stability; conserve soil and water; to provide future cover for wildlife; and to return stands into wood/fiber production..

Road Construction

Road construction activity related to the timber harvest includes constructing a maximum of 2.0 miles of new roads and reconstructing or reconditioning up to 4.4 miles of existing roads. After the sale is completed, any newly constructed roads would be closed according to a set of guidelines described in *Chapter 2-23 Features Common To All Action Alternatives, Including Mitigation and Monitoring*.

The purpose of constructing and reconditioning roads is to access forest stands that are to be harvested. Although there is an existing road system in the project area, some stands or portions of stands proposed for harvest are currently not adjacent to existing roads and some existing roads do not meet standards or conditions necessary to safely haul timber. The purpose of closing any new roads after harvest is to reduce future maintenance costs, reduce sediment delivery to water courses, and to regulate overall open road density to maintain or improve grizzly bear and big game habitat quality.

There were approximately 1.4 miles of existing open road that was closed (#3245, #3243B) and 0.4 miles of closure improvements on road #6976C that were implemented as a mitigation measure in 1999, prior to the construction of any new roads needed for timber harvest. See the alternative maps in Appendix E for exact locations. The closures involved: a) revegetating the road surface where needed to reduce soil erosion and to maintain slope stability and b) installing and maintaining barriers sufficient to preclude use of the road by motorized vehicles. These roads were no longer needed for management purposes or public access and closures helped to improve the HEI ratings in both the Bear Creek and Eagle Creek Habitat Analysis Units (HAU's).

The primary purpose of these pre-sale road closures was to ensure that the project would comply with grizzly bear habitat requirements regarding not increasing the amount of open roads and not decreasing core habitat in the project area.

Project-specific Forest Plan Amendments

In conjunction with the timber harvest, road construction and road closure actions the Forest Service is proposing three (3) project-specific amendments to the Gallatin National Forest Land and Resource Management Plan (9/87), commonly known as the Forest Plan.

a. Proposed Amendment to the Forest Plan Standard for Elk Effective Cover (FP, page II-18). The Forest Plan contains a forest-wide standard that states:

“The 1982 Elk Logging Study Annual Report contains procedures for analyzing elk habitat security as it is affected by timber harvest and road construction activities. An “elk effective cover” analysis based on this report will be conducted for timber sales and effective cover ratings of at least 70 percent will be maintained during general hunting season.”

“Elk effective cover” is measured by the “habitat effectiveness index” (HEI). HEI is an indicator of how human use of open roads might affect use of habitat in the area by elk. A value of 70%, the Forest Plan standard, generally means that the objective is to maintain open road density at a level no greater than $\frac{3}{4}$ mile per square mile such that 70% of the habitat in an area provides security for elk. If new roads are proposed to access timber stands for harvest, the standard was intended to require that all or a portion of those new roads be effectively closed after harvest, during the general fall hunting season, to a density of $\frac{3}{4}$ mile per square mile, or 70% HEI.

Three habitat analysis units (HAU's) were identified surrounding the project area (in timber compartments 305 and 306) within which to calculate open road density and HEI (*see Map 1-2, Chapter 1-12*). Calculations for the current condition resulted in an HEI value of 58% for the Eagle Creek HAU¹; 62% for the Upper Bear Creek HAU; and 49% for the Palmer Mountain HAU (Kempff, 2003). In other words, all 3 HAU's currently do not meet the Forest Plan standard.

To access timber stands to be harvested, the proposed action includes up to 2.0 miles of new road construction. These roads would then be closed after harvest, post-sale treatments, and public firewood gathering activities are complete. However, closing all new roads constructed for this project would still leave open road density and HEI values at existing levels, below the Forest Plan standard. Therefore, the Forest Service proposes a project-specific Forest Plan amendment to exempt the proposed road construction and road closure actions associated with this harvest project from having to achieve the Forest Plan standard of an elk effective cover (or HEI) rating of 70%.

¹ HEI is actually higher than reflected in the Eagle Creek HAU during the general fall hunting season due to seasonal gate closures on portions of the Eagle Creek Road # 3243 (5 miles) and the Pole Gulch Road #3243a (.5 miles) that are currently in effect.

The purpose of proposing amendment to this Forest Plan standard, in general, would be to avoid the need for additional closure of existing open road in conjunction with this timber harvest proposal (approximately 24.2 miles total). Reasons for not executing closures at this time include:

- The Forest Service does not have jurisdiction to close much of the road needed to meet an HEI of 70% in the Palmer Mountain HAU. The Forest Service, on its own, could close only 2.5 miles of the 14.3 miles needed to meet HEI in this unit.
- Achieving an elk effective cover rating of 70% in the three HAU's would require closing main access routes that have become popular for hunting and other recreational activities. Access to the Palmer Mountain/Absaroka-Beartooth Wilderness trailhead would also be restricted.
- The incremental benefits of achieving an HEI of at or close to 70% to elk and other wildlife may be outweighed by the loss of public access and recreational opportunity caused by closing up to 24.2 miles of existing open road. See Appendix G for a more detailed discussion on "elk effective cover" and this Forest Plan standard.
- The Responsible Official may conclude that decisions affecting the existing transportation network in this area are better made through the Gallatin National Forest Comprehensive Travel Management Plan, a process initiated in the summer of 2003 and scheduled to be completed in late 2004.

Road Closure Options

As an option to amendment of the Forest Plan elk effective cover standard, the Forest Service is considering closure of up to 3.0 miles of existing open road in the Upper Bear Creek HAU, 6.9 miles of road in the Eagle Creek HAU¹, and 3.6 miles of road in the Palmer Mountain HAU (See *alternative maps E-1 to E-4*). This would be sufficient to meet an HEI of 70% in the Upper Bear Creek and Eagle Creek HAUs, but HEI would remain below standard in the Palmer Mountain HAU due the amount of existing open county and private road not within Forest Service jurisdiction to close. Note that there are no harvest activities proposed within the Palmer Mountain HAU, but the HAU lies within the analysis area boundary so must be considered.

The road closure options are displayed on the harvest alternative maps in Appendix E. Roads considered for closure would include:

1. Eagle Creek HAU - close 6.9 miles of road, which would entail an additional 1.4 miles of closure (5.5 miles currently have gated seasonal closure)¹:

These roads (6.9 miles) are under Forest jurisdiction.

Eagle Creek Road #3243 (and spurs) – Close the road to wheeled motorized travel at the existing gravel stockpile near Casey Lake in the northwest corner of section 7, T9S, R9E.

2. Upper Bear Creek HAU - close an additional 3.0 miles of road:

These roads (3.0 miles) are under Forest jurisdiction.

Bear fork Road #6961 – Close the road to wheeled motorized travel at the junction with road #6961A, about ½ mile from the Bear Creek Road (#493).

3. Palmer Mountain HAU - close an additional 3.6 miles of road²:

These roads (3.6 miles) are under Forest jurisdiction.

Bald Mountain Road #6945 – Close to wheeled motorized travel at the Crevice Mountain Road.
Close Forest roads at the east end of the Crevice Mountain Road beyond the private land.

¹ HEI is actually higher than reflected in the Eagle Creek HAU during the general fall hunting season due to seasonal gate closures on portions of the Eagle Creek Road # 3243 (5 miles) and the Pole Gulch Road #3243a (.5 miles) that are currently in effect.

² The Palmer Mountain Road #3232 and Sin Nombre Road #3234 (3.6 miles) provide private land access and can't reasonably be closed or restricted during summer or fall seasons. In order to meet HEI in the Palmer HAU the balance of the road closures (7.1 miles) would have to be private or county roads.

There are also two options for road closure being considered. The first would be to close roads to motorized travel by gating from October 15th to December 2nd of each year, during the general hunting season, as specified by the Forest Plan standard. The second option would be to barricade the roads to wheeled motorized use year-round. Year-round closure would be consistent with the more restrictive way this standard has been applied historically on the Forest (see Appendix G). Implementation of these closures would begin in fall of 2004. If Option 2 were to be chosen, 6.9 miles¹ of the Eagle Creek Road #3243, which is needed to access sale units, would become a seasonal closure during the general hunting season through the life of the sale activities and then changed to a permanent year-round closure after completion of harvest, post-sale, and firewood gathering activities.

The purpose of the additional road closures would be to bring the area as close to meeting the Forest Plan standard of a 70% elk effective cover rating as possible, thus improving elk habitat security within this area over existing levels.

The following tables show the road density calculations for HEI for the Eagle Creek, Upper Bear Creek, and Palmer Mountain Habitat Analysis Units (HAU).

Darroch/Eagle T.S.
Revised 11/17/03

Transportation System
Road Density Calculations for Elk HEI

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Compartment/Analysis Unit	AREA		Open Motorized Roads						Open Road Density (miles/sq mi)	Current Calculated HEI	Additional Rds open during Timber Sale, minus roads closed during the Watershed treatments, miles					
	acres	sq.mi.	State & County Rds, mi.	Forest Rds ¹ , mi.	Adm Roads, mi.	Closed Roads w/ OHV ² , mi.	Private Roads, mi.	Sum of all OPEN ROADS, mi.			Alternative A - No Action	Alternative B	Alternative C	Alternative D	Alternative D - Mod	
Upper Bear Creek	8,064	12.60	0.0	12.0	0.0	0.0	0.0	12.0	0.95	0.62						
											Plus New Construction:	0.0	1.5	0.3	0.3	0.36
											Plus additional Opened ³ :	0.0	1.4	1.4	1.4	1.57
											Sum of all Open Roads by Alternative during TS:	12.0	14.9	13.7	13.7	13.9
											Adjusted Open Road Density during TS:	0.95	1.18	1.09	1.09	1.11
											Adjusted HEI by Alternative during Timber Sale:	0.62	0.59	0.60	0.60	0.60
											Miles closed to offset Timber Sale ⁴ :	0.5	0.5	0.5	0.5	0.5
											Miles closed to meet FP Standards ⁵ :	3.0				

Note #1 - Roads managed by the Forest Service and open to the public with cars and pickups.

Note #2 - Roads physically closed to cars and pickups but open to ATV's and Motorcycles's, estimated

Note #3 - Roads that are presently closed to highway or off-highway uses that will be opened during the Timber Sale

Note #4 - Miles of open road that would have to be closed during the Timber Sale to keep HEI the same as before the Sale.

Note #5 - Miles of road that would have to be closed to move the current HEI into Forest Plan HEI Standard of 0.70 from existing condition (No Action).

Post-activity closures of roads will bring the HEI rating in the Upper Bear Creek HAU back to the pre-sale rating of 62% for all action alternatives.

¹ HEI is actually higher than reflected in the Eagle Creek HAU during the general fall hunting season due to seasonal gate closures on portions of the Eagle Creek Road # 3243 (5 miles) and the Pole Gulch Road #3243a (.5 miles) that are currently in effect.

Compartment/Analysis Unit	AREA		Open Motorized Roads						Open Road Density (mi/sq mi)	Current Calculated HEI	Additional Rds open during Timber Sale, minus roads closed during the Watershed treatments, miles					
	acres	sq.mi.	State & County Rds, mi.	Forest Rds ¹ , mi.	Adm Roads, mi.	Closed Roads w/ OHV ² , mi.	Private Roads, mi.	Sum of all OPEN ROADS, mi.			Alternative A - No Action	Alternative B	Alternative C	Alternative D	Alternative D - Mod	
Eagle Creek	8,448	13.20	4.8	10.4	0.0	1.0	0.0	16.2	1.23	0.58						
											Plus New Construction:	0.0	0.5	0.6	0.3	0.46
											Plus additional Opened ³ :	0.0	0.2	0.2	0.1	0.26
											Sum of all Open Roads by Alternative during TS:	16.2	16.9	17.0	16.6	16.9
											Adjusted Open Road Density during TS:	1.23	1.28	1.29	1.26	1.28
											Adjusted HEI by Alternative during Timber Sale:	0.58	0.58	0.58	0.58	0.58
											Miles closed to offset Timber Sale ⁴ :	1.0	1.0	1.0	1.0	1.0
											Miles closed to meet FP Standards ⁵ :	6.9				

Note #1 - Roads managed by the Forest Service and open to the public with cars and pickups.

Note #2 - Roads physically closed to cars and pickups but open to ATV's and Motorcycles's, estimated

Note #3 - Roads that are presently closed to highway or off-hihgway uses that will be opened during the Timber Sale

Note #4 - Miles of open road that would have to be closed during the Timber Sale to keep HEI the same as before the Sale.

Note #5 - Miles of road that would have to be closed to move the current HEI into Forest Plan HEI Standard of 0.70 from existing condition (No Action).

Compartment/Analysis Unit	AREA		Open Motorized Roads						Open Road Density (mi/sq mi)	Current Calculated HEI	Additional Rds open during Timber Sale, minus roads closed during the Watershed treatments, miles					
	acres	sq.mi.	State & County Rds, mi.	Forest Rds ¹ , mi.	Adm Roads, mi.	Closed Roads w/ OHV ² , mi.	Private Roads, mi.	Sum of all OPEN ROADS, mi.			Alternative A - No Action	Alternative B	Alternative C	Alternative D	Alternative D - Mod	
Palmer Mtn	6,592	10.30	5.3	8.6	0.0	0.0	7.7	21.6	2.10	0.49						
											Plus New Construction:	0.0	0.0	0.0	0.0	0.0
											Plus additional Opened ³ :	0.0	0.0	0.0	0.0	0.0
											Sum of all Open Roads by Alternative during TS:	21.6	21.6	21.6	21.6	21.6
											Adjusted Open Road Density during TS:	2.10	2.10	2.10	2.10	2.10
											Adjusted HEI by Alternative during Timber Sale:	0.49	0.49	0.49	0.49	0.49
											Miles closed to offset Timber Sale ⁴ :	0.0	0.0	0.0	0.0	0.0
											Miles closed to meet FP Standards ⁵ :	14.3				

Note #1 - Roads managed by the Forest Service and open to the public with cars and pickups.

Note #2 - Roads physically closed to cars and pickups but open to ATV's and Motorcycles's, estimated

Note #3 - Roads that are presently closed to highway or off-hihgway uses that will be opened during the Timber Sale

Note #4 - Miles of open road that would have to be closed during the Timber Sale to keep HEI the same as before the Sale.

Note #5 - Miles of road that would have to be closed to move the current HEI into Forest Plan HEI Standard of 0.70 from existing condition (No Action).

b. Vegetative Diversity: The Forest Service proposes a site-specific amendment to exempt the project from the Forest Plan standard for vegetative diversity (Forest-wide standard 6.c.2, FP, pp. II-19 and 20). The standard states, "(1) Forest lands and other vegetative communities such as grassland, aspen, sagebrush and whitebark pine will be managed by prescribed fire and other methods to produce and maintain the desired vegetative conditions. (2) In order to achieve size and age diversity of vegetation, the Forest will strive to develop the following successional stages in timber compartments containing suitable timber: 10% grass/forb, 10% seedling/sapling, 10% pole-size forest, 10% mature forest, and 10% old growth forest."

Presently, the area is not meeting the standard. The existing condition for vegetative structural composition is below the standard in the seedling (<1%), sapling (3.4%), and pole-size (<1%) forest components. The greatest percentage of the area consists of older-aged forests (61.9% mature and old growth). The harvesting proposed in Alternatives B (Proposal), C, and D will increase the amount of grass/forb component in the short term (10-15 years), and seedling, sapling, and pole components in the long term. However, the proposed harvesting will not change enough of the structure for these three components to achieve the FP standard of 10% for each.

c. Grizzly Bear - Distance to Hiding Cover: The Forest Service proposes a site-specific amendment to exempt the project from the Forest Plan standard for meeting distance-to-hiding-cover requirements in Appendix G of the Forest Plan (Appendix G standard 4.A(3), FP, p. G-11). The standard states, "Regeneration harvest units should be irregular in shape and have no point more than 600 feet from cover."

The proposal (Alternative B) and Alternative C will not meet this distance requirement, however, Alternatives D and D-Modified would both meet the distance requirements. Specifically, Alternative B Units 1, 3, 8, 9, and 13; and Alternative C Units 1, 3, 9, and 13 will have small areas further than 600 feet to hiding cover.

SCOPE OF THE PROPOSED ACTION AND DECISIONS TO BE MADE

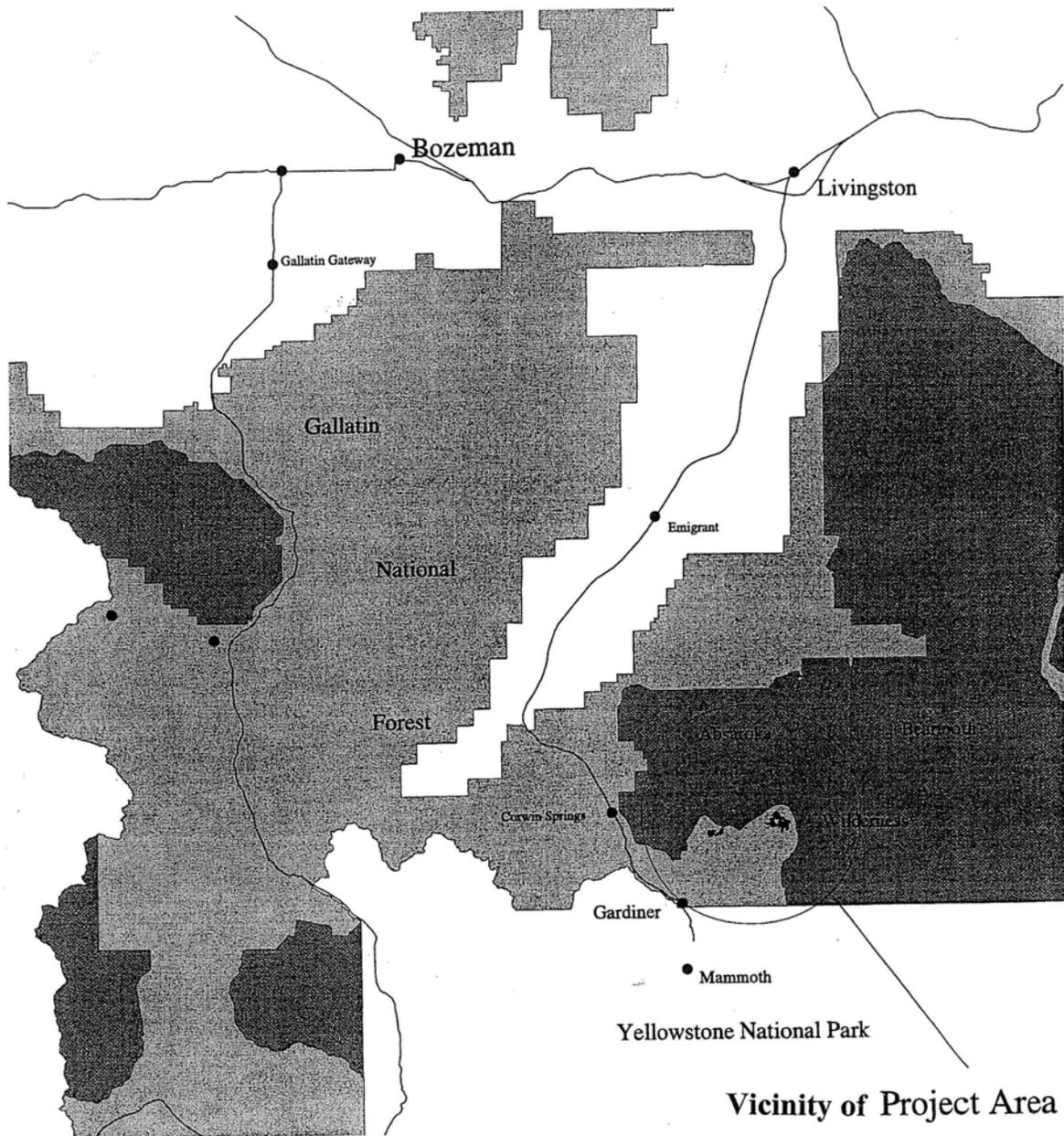
The Council on Environmental Quality (CEQ) regulations implementing NEPA require that federal agencies consider three types of actions: (1) **connected actions**, which are two or more actions that are dependent on each other for their utility; (2) **cumulative actions**, which when viewed with other proposed actions may have cumulatively significant effects, and should therefore be analyzed together; and (3) **similar actions**, "which when viewed with other reasonably foreseeable or proposed actions, have similarities that provide a basis for evaluating their environmental consequences together." (40 CFR 1508.25(a)).

The scope of actions to be addressed in this analysis is limited to harvest and reforestation of timber stands in the Darroch Creek, Bear Creek, and North Fork Bear Creek drainages, northeast of Gardiner, Montana. In addition, the scope of the proposed action is limited to new road construction and reconditioning, slash treatment and site preparation in support of the proposed timber harvest and reforestation, mitigation measures deemed necessary to reduce environmental effects of the project, and temporary project-specific amendments to exempt this project from certain Forest Plan standards. The pre-sale road closures, which have been completed, are considered mitigation measures and are not part of a broad scale travel and access management program. These activities are connected actions and, therefore, are considered together in accordance with CEQ regulations.

This EA documents analysis of site-specific, on-the-ground activities. It is not a general management plan for the Bear Creek watershed. The environmental analysis documented in this EA is tiered to the Gallatin Forest Plan Final EIS and Record of Decision (signed 9/23/87). It does not reanalyze the management area allocations already specified in the Forest Plan nor does it seek to reexamine Federal regulations or Forest Service policy regarding timber harvest on National Forest lands or exchange of National Forest System lands.

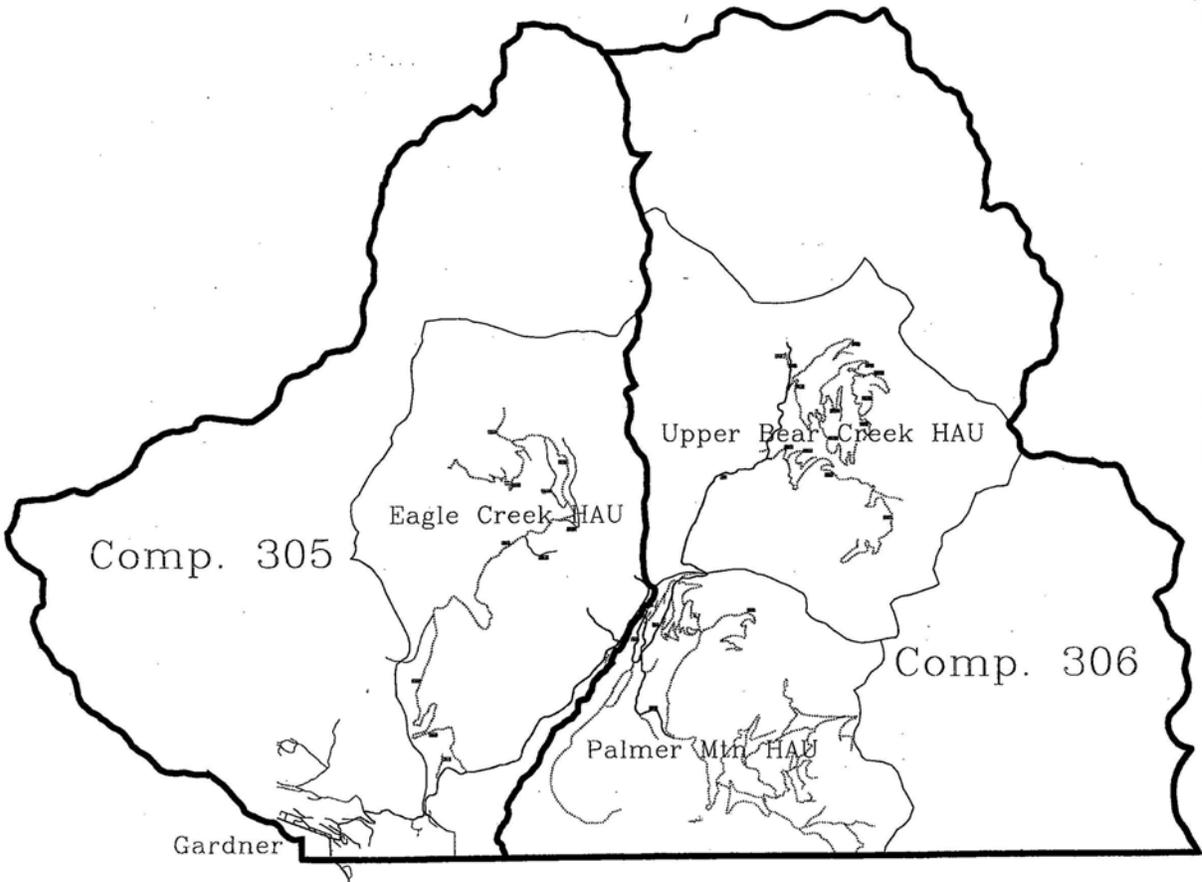
This EA is not a decision document. It does not identify the alternative to be selected by the deciding official. It does however, indicate the preferred alternative that has been identified by the interdisciplinary team. This document discloses the environmental consequences of implementing the proposed action and alternatives to that action. The Gallatin Forest Supervisor, Rebecca Heath is the Deciding Official. Her decision and the rationale for that decision will be stated in the Decision Notice. The Forest Supervisor will make the following decisions:

- 1) Whether or not to harvest and regenerate timber stands, conduct road construction, and other support activities to meet the stated project purpose,
- 2) Under what conditions and by which methods timber harvest and associated activities would be conducted, and
- 3) Whether or not to implement project-specific Forest Plan amendments to exempt the project from Forest Plan standards..



Map 1-1. General Vicinity of the Proposed Darroch-Eagle Creek Timber Sale

MAP I-2



Habitat Analysis Units (HAU) used for the Elk HEI