

GARVER

FINAL ENVIRONMENTAL IMPACT STATEMENT

Chapter 4 - Public Involvement

And Appendices K, L, and M

Three Rivers Ranger District

Kootenai National Forest

June 2003



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GARVER EIS
Chapter 4, Public Involvement
and Appendices K, L, and M

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GARVER FEIS – CHAPTER 4

Public Involvement

I. INTRODUCTION

The Garver Draft Environmental Impact Statement (DEIS) was made available for public comment on October 18, 2002. This chapter displays a summary of public involvement activities for this project, including the agency's response to DEIS comments.

II. DEVELOPMENT OF THE SELECTED ALTERNATIVE ALTERNATIVE D - MODIFIED

Alternative D-Modified was developed following the release of the Garver DEIS in order to: 1) respond to public comments in the DEIS, 2) respond to resource needs identified with more detailed field reconnaissance; and 3) ensure that the timber harvest portion of the project is feasible from an economic and logging systems standpoint. A summary of the changes from the DEIS preferred alternative, Alternative D, to the selected alternative, Alternative D-Modified, is discussed in the Garver ROD, Section II. A more detailed summary of the changes is located in ROD Appendix 5.

Although public comments did result in minor changes to the selected alternative, the comments received on the Garver DEIS did not disclose any new major issues or need for new, significant analysis.

Among the changes to the selected alternative, based on DEIS comments, was consideration of a further increase in grizzly bear core area. Many of the DEIS commentors requested that the district consider increasing grizzly bear core area from 53% (as proposed in Alternative D) to 55%, if possible. (A core area of 55% for BMU 15 is included in the preferred alternative for the proposed amendment to the Kootenai Forest Plan [FEIS Forest Plan Amendments for Motorized Access Management within the Selkirk and Cabinet-Yaak Grizzly Bear Recovery Zones, March 2002] and is based on information on habitat needs of the grizzly bear.)

Consequently, in March 2003, the district requested public comments on a proposal to increase core from 53% to 55% post project by placing an earth barrier at milepost 3.8 on the West Fork Yaak River Road #276, which would have restricted 1.9 miles on Road #276 and 2.9 miles on the Benefield Road #5840. The district proposed that this restriction to motorized access would be offset by opening portions of the gated Garver Mtn. Road #5857 and the Hensley Creek Road #5856.

Responses to this inquiry varied from those generally supporting closures for wildlife security, those avidly against any closures, to those who supported the specific proposal. Based on these comments and discussions with USFWS grizzly bear researchers, the proposal was modified in the selected alternative to berm the Benefield Rd. #5840 at the jct. with the #276 road, but leave open the West Fork Yaak River Road #276. The Garver Mtn. Road #5857 will be opened to motorized use to the Obermeyer Trail #33 trailhead. These activities will occur post project. The

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current access on the Hensley Cr. Rd. #5856 (open to the F spur) will be maintained during and post project. These activities will provide 55% core area for the grizzly bear as well as maintain approximately the same mileage of open motorized roads in the area. (See Garver ROD, Section VIII, Specifics of the Selected Alternative and the ROD Appendix 4 map, for more information).

Other adjustments were made to Alternative D, such as reducing the size and shape of harvest units, to address resource concerns and/or to ensure economic and logging systems feasibility. These changes are documented in ROD Appendix 5. It is the decision maker's determination that the access management changes and the other changes to Alternative D documented in ROD Appendix M, are minor, and it is sufficient and appropriate to file the DEIS with Chapter 4 and Appendices as the final documentation for this project (40 CFR 1503.4(c)).

III. PUBLIC INVOLVEMENT SUMMARY

Proposed Action Development

In August of 2001 the Three Rivers Ranger District evaluated the Northwest Yaak Subunit for potential management opportunities. The ID team requested input during the assessment phase from persons interested in the area, such as those who commented on a previous Northwest Yaak analysis and those asking to be notified of projects in the upper Yaak valley. A display ad soliciting information was published in the Libby *Western News*. Twenty comment letters were received. Comments from the 1998 Northwest Yaak assessment were also reviewed and reflected similar desires for management. (See landscape assessment section of the project file for more information.) Those opportunities that were feasible to implement within the next 10 years and required a new environmental analysis and decision were brought forward into the Proposed Action for the Garver project.

Proposed Action Scoping

Following the subunit assessment, the district developed a Proposed Action for the project area. Site-specific public comments on the proposal were requested in April of 2002 through publication in the *Federal Register* and public scoping notices in the Kalispell, Montana, *Daily Interlake*; and the Libby, Montana, *Western News*. A notice was also mailed to those who responded to the landscape assessment inquiry and those on the district mailing list for planning projects in the upper Yaak valley area (209 recipients); twenty comment letters were received.

Open Houses

The district held an open house to explain the status of the project on June 20, 2002, at the Upper Yaak Work Center. Twelve people attended. No new issues surfaced.

Project Field Trips and Meetings

On July 18, 2002, the district conducted a field trip to the West Fork Yaak River area at the request of the U.S. Environmental Protection Agency (EPA) to discuss water quality concerns in that area. Representatives from the Montana Department of Environmental Quality (MDEQ) and the Yaak Valley Forest Council also attended. (See public involvement section of the project file for EPA field trip notes.)

At the request of the Yaak Valley Forest Council, the ID Team met with council members on several occasions to discuss treatments and concerns. (See public involvement section of the project file for notes on meetings or field trips that occurred on April 30, 2002, May 3, 2002, and on August 29, 2002).

Public Comments on Draft EIS

On October 16, 2002, the DEIS was mailed to all project participants and required agencies and letters. Legal ads appeared in the *Western News* and *Daily Interlake*. On October 18, 2002, a Notice of Availability of the Garver DEIS was published in the Federal Register. Eighteen comment letters were received.

Comments on the DEIS are displayed in the FEIS, Chapter 4, along with agency responses. The comments did not disclose any new issues or a need for substantial new analysis. However, responses to the DEIS did lead to refined analysis which is reflected in the FEIS, Chapter 4. Therefore, I have determined that it is sufficient and appropriate to re-issue the Draft EIS with the FEIS, Chapter 4 and Appendices, containing responses to DEIS comments as the final documentation for the Garver project and refined analysis based on DEIS comments [40 CFR 1503.4 (c)].

Public Comments on Proposal to raise Core from 53% to 55%

As explained in the Garver FEIS, Chapter 4, Section II, letters were mailed to Yaak residents and landowners and others interested in the management of federal lands in the Yaak Valley, requesting comments on a proposal to adjust motorized access so that grizzly bear core could be increased from the previously proposed 53% to 55%. Thirty comment letters were received. These letters are located in the project file. Based on public comments and discussions with Wayne Kasworm, USFWS wildlife Biologist for the Cabinet Yaak Grizzly Bear Recovery Zone, grizzly bear core in BMU 15 was increased to 55% with the Garver decision (see ROD Section VIII, #4).

Confederated Salish and Kootenai Tribes

The concerns of the Kootenai and Salish tribes were solicited through project scoping. In addition, the Confederated Salish and Kootenai Tribe has provided a tribal liaison to work in partnership with the Kootenai National Forest to review project proposals and provide tribal input. No concerns regarding this project were expressed by tribal governments.

U. S. Fish and Wildlife Service

Modifications, related to grizzly bear core, to Alternative D are the result of discussions with Wayne Kasworm, USFWS grizzly bear biologist for the Cabinet-Yaak Grizzly Bear Recovery Zone. Mr. Kasworm was consulted during initial project development regarding grizzly bear habitat improvement in the Garver project area and following DEIS comments in regard to increasing grizzly bear core from 53% to 55% (see Wildlife References section of the project file).

A biological assessment was sent to USFWS for determination of concurrence on February 4, 2003. Through informal consultation, the USFWS concurred that the proposed project **may affect, but is not likely to adversely affect the threatened gray wolf or the threatened grizzly bear.**

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Through formal consultation, the USFWS issued a biological opinion that the Garver project entirely complies with the guidance of the LCAS and that this project is **not likely to jeopardize the continued existence of the Canada lynx**. No terms and conditions were deemed necessary since no incidental take is expected.

US Environmental Protection Agency and Montana Department of Environmental Quality

As discussed previously (see Project Field Trips and Meetings paragraph above), on July 18, 2002, representatives from the Montana Office of the Environmental Protection Agency (EPA) and the Montana Department of Environmental Quality participated in a field trip to the Garver project area. Steve Potts from the EPA submitted a trip report, which is located in the public involvement section of the project file. The trip report (PF Doc. 68) states "Water quality issues on the Garver EIS do not appear to be as significant as previously believed. It appears as if the Garver EIS project is addressing such issues appropriately." The EPA's DEIS comments (FEIS Chapter 4, Letter #18) conclude, "While we have some environmental concerns associated with tractor logging and road construction with the proposed project with 1,259 acres tractor harvests in watersheds of 303(d) listed streams (West Fork Yaak River), and with minimal aquatic monitoring, our level of environmental concern is low. The alternatives appear to be planned and designed to minimize adverse impacts." (See FEIS pg. 4-64.)

The Montana Department of Environment's comments are included in the Garver FEIS Chapter 4, Letter #17.

Involvement of Other Agencies

Montana Department of Fish, Wildlife and Parks (MDFWP) wildlife biologist Jerry Brown (see Wildlife References section of the project file) was consulted regarding big game and trapping pressure in the project area. Mike Hensler, fisheries biologist with MDFWP was consulted regarding fisheries/aquatics in the Garver area.

RESPONSE TO COMMENTS

All comments received were given careful consideration. Comments on the environmental analysis are responded to by resource specialists on the interdisciplinary team in the following section.

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ms
 Project Garver DEIS Kathy
 Date Received 11/15/02
 Comment No. 1
Phil Fortier
43 River View Dr
Trop Mt
11-13-02

Mike Balboni
 3 Rivers R.D.

Dear Mike

I am happy with the development of the Garver DEIS.

All of my concerns at scoping time have been adequately addressed.

This project can serve as a model for future projects because it is moving in the direction of sustainable forestry.

Wildlife, old growth and water resources were exceptionally well done.

The timber harvest treatment summary was helpful in understanding the silvicultural prescriptions.

I believe that Alt D is a reasonable harvest-maintenance activity for this area.

Sincerely,
 Phil Fortier

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Response to Comments #1-5: Your comments on this project are appreciated.

December 2, 2002

Michael L. Balboni, District Ranger
Three Rivers Ranger District
1437 N. Highway 2
Troy, MT 59935

Dear Mike Balboni:

Please consider the enclosed comments on the Garver Draft Environmental Impact Statement (DEIS) on behalf of the Yaak Valley Forest Council. First of all, I would like to thank the Garver ID team for their willingness to listen to and consider our input and concerns during the scoping phase of this project. In particular, we greatly appreciate the ID team taking the time to meet with neighbors who had concerns about proposed activities adjacent to their land, as well as the ID team’s decision to address old growth concerns in the project area.

Old Growth:

We support the Garver DEIS alternative D concerning old growth management area changes in the Hensley and Lick compartments. We commend the Forest Service for going an extra step in maintaining old growth forests in the Lick compartment by dropping proposed harvest units 11, 12 and part of 17 in alternative D even though that compartment currently meets the 10% requirement for that watershed.

In addition to the changes proposed in the Hensley compartment we also recommend leaving all trees live and dead over 18” dbh in that watershed. This would serve several purposes including managing for an increase in mature forests in a compartment that is lacking in old growth as well as maintaining thermal and hiding cover for wildlife.

Urban interface fuels reduction:

We support the Garver DEIS proposal to reduce fuels around the town of Yaak in drier forest habitats. One specific unit around Hensley we would like to comment on, however, is unit 42 on Rausch point. The upper portion of unit 42 looks to us like it is still in good shape as far as fuels and tree density per acre. It currently provides a good combination of both forage and thermal cover for elk and deer. Some of our members who hunt in the area have commented that they would like to see the upper portion of unit 42 dropped and clumps of leave islands and security areas left in the rest of the units around Rausch Point.

Again, we would like to see trees over 18” dbh left in the Hensley compartment.

We also again appreciate the Garver ID team members who took the time to meet

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Response to Comment #1: Retention of the large live tree component within Compartment 17 (Hensley Hill), while still meeting the other resource objectives has been a goal of this proposal. This project meets Forest Plan standards to retain at least 10% of Forest Service lands in an old growth or replacement old growth condition by compartment. The Garver Timber Harvest Treatment Summary (ROD Appendix 1) describes the treatment objectives and includes descriptions of the proposed treatment for each unit. Note that the intent for the proposed units in Compartment 17 is to reduce the density in the lower diameter classes, retain the old overstory relics, and retain most of the younger large live tree component, whenever they are present. Maintaining winter range conditions (thermal and hiding cover) for wildlife was an important consideration in the design of this project (See purpose and need for improving winter range conditions, DEIS pg. 1-3).” The DEIS at pg. 3-49 states, “Thermal cover/snow intercept is minimally reduced by harvest alternatives.” Alternative D-Modified has the least impact to snow intercept values as compared to the other action alternatives.

Response to Comment #2: Unit 42 will have a small leave island at the top of the unit due to slope steepness and rock which provide cover for wildlife. We also anticipate, based on the placement of the unit and the exclusion of riparian areas, that security areas will be available in the Rausch Point area. One of the treatment objectives for Unit #42 was to modify landscape conditions to maintain/enhance winter range habitat effectiveness for big game. This unit has an open structure and the large diameter overstory trees would be left on site. Crown removal for this unit is targeted at 30-40%. When we looked at the winter range for the Garver Analysis Area, we looked at it in a wider perspective than unit by unit. The Hensley Hill/Rausch Point area supports a large population of big game, mostly white-tailed deer. In most areas, the browse is eaten down to the ground. In an effort to alleviate the browsing pressure on current winter range foraging sites, we felt it was important to open up some other areas. The response we are anticipating is that the opening of these areas will rejuvenate browse species present under the canopy.

with property owners that had private land adjacent to proposed fuel reduction activities.

Some of the areas that we feel are in the most need for fuels reduction may not have adequate funding. We request that Three Rivers look at developing funding proposals for some of these areas to be presented to the Lincoln County Resource Advisory Committee in the future if needed.

Core grizzly habitat

We support the Garver DEIS proposal to move core grizzly habitat farther away from private land in the project area and also feel that core habitat should be increased to 55% during and post project, rather than the proposed 50-53%. This would meet the requirements listed in the recent access management FEIS. In order to meet a 55% core habitat for grizzlies we recommend that Three Rivers consider dropping proposed units in current core habitat in the Mud Creek area, including units 13, 13a, 14, 15 & 15a. The Mud Creek drainage currently has a 1000-5000 acre unroaded area that provides security for both grizzly bears and elk. In our field trips there we didn't see any urgent forest health problems—the units by and large were wet, mature to old-growth forests, with a diverse mixture of tree species as well as an area with numerous riparian ponds and seeps.

Noxious Weeds

The biggest concern our members had in the project area is with noxious weed infestations that have gone off the roadways and into the forest, particularly hawkweed infestations in past regeneration units in the West Fork drainage. While we did not complete surveys of hawkweed, we documented several large past regeneration units that had been completely overtaken by hawkweed, including areas that are adjacent to proposed units such as units 33, 33a & 33b. The problem with hawkweeds is reaching epidemic levels in areas of the Yaak Valley like the West Fork. The Forest Service cannot really plan on management activities with a goal of increasing forage for wildlife—as is listed under treatment objectives in the Garver DEIS--when the Forest Service cannot control the spread of noxious weeds like hawkweed. Hawkweed completely overtakes ground cover, eliminating plant species diversity and likewise forage for wildlife like bears, elk and deer. While we appreciate the Garver DEIS proposal to more aggressively treat weeds than what has been done in the past, we feel that the only option in regards to hawkweed in the project area at this time is to stop activities that directly increase the spread of hawkweed until the current infestations are controlled. In order to accomplish this we feel there should be no regeneration units planned in the Garver project—*particularly regeneration units adjacent to past regeneration units that have current infestations*—such as next to units 33, 33a & 33b along French Creek. We also feel that any thinning units proposed that are adjacent to current infestations should be winter logged only, as well as monitored and sprayed before during and after the project.

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Response to Comment #3: We agree that some projects may be underfunded by traditional funding sources. The District is actively pursuing alternative sources of funding through the Lincoln County Resource Advisory Council and the National Fire Plan.

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Response to Comment #4: During the initial phases of project development for Garver, increasing quality core area was identified and incorporated into our purpose and need statement. The existing core is at 47% and we felt we had a unique opportunity to increase core in this area, while adjusting core away from high human use areas. The core is increased to 50% during the project, and further increased to 55% post project. See the ROD, Section VIII for a description of these actions. The Mud Creek units you mention were reduced from 170 total acres to 113 acres in the selected alternative, and all will be harvested by helicopter. The vegetative treatments proposed for the Mud Creek area would improve spring foraging opportunities. As you state, the area is composed of mature, diverse tree species and at this time is not functioning as foraging areas for grizzly bears. These units are located in spring grizzly bear habitat and BMU 15 contains approximately 37,017 acres of spring habitat.

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Response to Comment #5: The district reviewed the mapping of current infestations, including infestations provided by the Forest Council, and developed a weed treatment plan. The plan is also based on a risk assessment of several factors, including regeneration harvest. (See ROD Appendix 2 and the risk assessment located in the noxious weeds section of the project file for more information.) Units 33a and 33b are dropped in the selected alternative and Unit 33 is no longer adjacent to a past regeneration unit that has a current infestation, and is reduced in size. Unit 33 is one of several units that would receive followup herbicide treatment if infestations are found related to activities. Regeneration harvest allows more light to reach the forest floor, which does favor the growth of herbaceous vegetation including noxious weeds. However, generally the spread of noxious weeds is more related to the amount of ground that is scarified to mineral soil by skidding, piling and burning operations than by the type of silvicultural system (i.e harvest) that is used. Some methods and timing utilized in this project which will create less ground disturbance and have less chance of introducing noxious weed seeds are: 1) Helicopter yarding versus tractor skidding 2) Winter harvest versus spring/summer/fall harvest; and 3) Hand piling versus machine piling. Winter logging was considered and is included for some units, but in many areas winter logging was not feasible due to the length of road to be plowed.

While we appreciate the proposal for increased mitigation work concerning noxious weeds, we feel that increased weed infestations and possible future infestations are not adequately analyzed in the DEIS. In the Forest Vegetation section of the Garver DEIS, (chapter 3) noxious weeds *are not even mentioned!* Not discussed under Cumulative Effects, Effects on Forest Succession, or in Departures from Historical Reference Conditions. It is clear to us that regeneration harvests are directly responsible for the spread of hawkweed, yet the cumulative effects of infestations are not adequately analyzed.

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Water quality/peak flow/riparian issues:

We feel that the Garver team should take extra precautions in regards to the West Fork Yaak water quality due to the following reasons 1. West Fork Yaak River is a TMDL listed stream 2. West Fork Yaak River harbors one of the last genetically pure populations of cutthroat trout in the Yaak watershed and 3. The Canadian portion of the West Fork Yaak River has had recent riparian harvests, the future harvest rate in Canada is unknown, and the current impacts of past activities are unknown.

Specifically, we feel that there should be no regeneration harvests in the West Fork Yaak drainage. In particular, we are concerned about the increase in peak flows in West Fork Trib #2. We also ask that the Garver ID team drop proposed unit 5 along the West Fork # 2 trib. This will not only help reduce peak flow concerns in the tributary but also minimize the impacts of harvesting along #318 West Fork Yaak River Trail, an area that our members use. Additionally, we are concerned that opening up this site may encourage more fishing pressure in the West Fork Yaak River, which is a stronghold for genetically pure cutthroat trout

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Response to Comment #6: The project weed specialist has the expertise and the responsibility to address the subject of noxious weeds. The noxious weeds analysis in the landscape assessment and the subsequent EIS at pg. 3-104 effectively describes the affected environment and the effects of implementing the proposed action. The effects of noxious weed spread to proposed, threatened, endangered and sensitive plant populations is also addressed in the DEIS at pg. 3-99. For that reason, the Forest Vegetation section, written by the project Silviculturist, focuses on trees, shrubs, and non-sensitive or threatened plant communities.

Response to Comment #7: The ECA increase for the West Fork Yaak River watershed from both the proposed regeneration and intermediate harvest units is about 385 acres. It would take approximately 2,000 equivalent clearcut acres (ECA) to generate a 1% increase in peak flows in a watershed the size of the West Fork (70,000 acres). The increase in project-related ECA for the West Fork is 0.6%, resulting in a project-related PFI of about 0.2%. This small a percentage increase would not result in change in water quality or habitat conditions in the West Fork. The watershed boundary for West Fork Yaak #2 was corrected based on field information. This adjustment increases the watershed size from 743 acres to 941 acres. The current ECA is 23% instead of the 22% shown in Table 3-43. Under Alternative D-Modified Unit 6, a regeneration harvest unit, would be dropped. The size of Unit 5, an intermediate cut, was decreased from 34 to 15 acres by dropping the lower portion of the unit. As modified, Unit 5 would contribute less than 1% ECA increase to the watershed, and thus would have virtually no effect on peak flows. Under Alternative D-Modified the project-related ECA increase in West Yaak Tributary #2 is expected to be 42 acres which is a 4% increase. The ECA would increase from 23% to 27%. Under Alternative D-Modified the project-related risk of flow increase adversely affecting the West Fork Yaak Tributary #2 is low (as compared to the risk level of the other action alternatives displayed in DEIS Table 3-44). This risk rating takes into account that the committed BMP work would occur as discussed in the analysis. The BMP work includes the addition of ditch relief culverts on Road 276B and cross drainage on Road 5846 to disperse water now concentrated by roads and skid trails.

Response to Comment #8: The acreage of Unit 5 has been reduced due to RHCAs and logging feasibility. Therefore, the road of concern at the bottom of the unit will remain closed. No additional access would be available and harvest will not contribute to fishing pressure in the West Fork of the Yaak River.

We also request that proposed units 33, 33a, 33b and the lower portion of unit 34 be dropped from the project. These units lie in a sensitive, wet location between and close to French Creek. We are concerned that harvesting here will result in many negative impacts, including:

1. Adverse impacts to nearby old-growth forests by creating a hard edge effect that will increase blowdown, disease and noxious weed infestation in a wet, riparian old-growth forest. This is also an area that, as mentioned previously, has existing hawkweed infestations in nearby regenerating stands.

←9 **Response to Comment #9:** Alternative D-Modified addresses your concerns through modifications to these units as follows: The lower (south) portion of unit 33 is dropped, therefore this unit will not create any edge effect to the old growth cedar grove. Units 33a and 33b are dropped, and the unit 34 boundary has been marked to maintain a buffer between the old growth stand edge at a minimum of (and generally more than) 150 yds.

2. Adverse impacts to soil compaction by logging in wet soils. This whole area lies in a level basin surrounded on three sides by steep slopes. It would be my guess that a soil compaction test would reveal that the moisture levels might never go below 18% in this area. The impacts of tractor harvesting, as well as the impacts of the proposed temporary road (that also includes a stream crossing) could be severe.

←10 **Response to Comment #10:** Units 33a and 33b have been dropped. The stream crossing between 33a and 33b will no longer be needed. Unit 33 is expected to have a total disturbance of 13% from the temporary road and landing construction within the unit, skidding operations and excavator piling. (This is an increase from 9% shown from Table 3-36 because the temporary road was not included with the original projected unit soil disturbance.) Unit 33 has a higher risk of equipment-related compaction than a typical tractor unit due to the naturally high soil moisture. Specific mitigation measures for units of special concern, including Units 33 and 34, are described in the Design Features table (ROD Appendix 2).

In units 34 & 35, we are pleased to see a prescription that leaves a variety of tree species in a manner that is not evenly spaced, leaving clumps of trees. We are somewhat concerned about excavator piling in these two units since the area has wet sites however.

←11 **Response to Comment #11:** Unit 34 has an intermittent stream through the middle, and has been divided into two units 34A and 34B to simplify identification and protection of the RHCA. Equipment would only be allowed to cross the RHCA at designated crossings that are approved by the district hydrologist. Unit 34 also has a wet area of about an acre at the bottom of the unit that would be excluded from harvest and equipment operation.

Roadless Area:

We are glad to see that there are no harvest activities planned for the West Fork Yaak IRA. We support the planned prescribed burn around Dusty Peak in the IRA. It’s been mentioned that the area has some large Douglas fir trees intermixed among smaller, denser stands of lodgepole and we request that precautions, such as hand raking duff away from Douglas firs, be taken before the burn to reduce mortality in the larger overstory trees.

←12 **Response to Comment #12:** Precautions will be taken to reduce mortality of the larger Douglas fir in the Dusty Peak area. The precautions will involve the timing of the burn, ignition pattern used for the burn, and possibly some pre-treatment of fuels adjacent to the larger overstory trees. Each burn done on the Three Rivers RD has a burn plan with a prescribed burn prescription. This plan addresses the objectives to be met and conditions needed to meet the objectives. The basic prescription takes into account the fuel loadings, fuel moistures, weather conditions, and ignition pattern required to meet the burn objectives. One of the basic objectives of any burn is to reduce overstory mortality.

Letter #2 – Yaak Valley Forest Council

Regeneration Harvests:

We do not agree with the purpose and need of regeneration harvest in wet mixed conifer forests. These prescriptions are similar to recently logged units we've looked at in Bunker Vinal, Clay Beaver and West Fork Yaak projects. To us it's a shame these areas couldn't have been treated with a lighter hand, selectively thinning trees without so drastically changing the landscape. We are concerned about the impacts these regeneration harvests will have on interior forest habitats and wildlife that utilize them by creating hard edges, as well as the increase in noxious weeds that always follows this type of harvest. We also feel that regeneration harvest in wet forests types can actually increase the rate and spread of fires by drying out microsites where fire can spread much faster into unlogged stands. Another concern we have after looking at recent regeneration harvests is how little snag habitat is left. We plan on documenting snag retention in harvest units next year and will contact the district beforehand for information.

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Response to Comment #13: The purpose and need statements were derived from conclusions developed during the broadscale assessment of the Northwest Yaak Subunit (Garver Ecosystem Assessment at the Watershed Scale, January 2002). The IDT prioritized recommendations made in that assessment, based on the need for action, to formulate this project. On page 1-3 of the EIS it is further mentioned that "...specific resource and vegetative conditions not meeting long term management objectives were identified....." Whether it be on drier forest types or more moist, a comparison was made of how current vegetative conditions compared with reference and/or desired conditions considered necessary to maintain sustainable forest conditions. All stands proposed for treatment of any type were reviewed and a diagnosis was made to determine the options. The Diagnosis for Selection of Silvicultural System and Harvest Method is a document located in the FEIS Appendix L. For all stands being considered, the first step was determining whether or not the stand can be 'modified' in order to meet the desired condition. Modify is a term used to describe non-regeneration harvest treatments. Where conditions were suitable for intermediate harvest (ie: thinning, salvage, etc.) this was the diagnosed treatment option. Regeneration harvest was only proposed where conditions were not suitable for other treatment options.

Response to Comment #14: The regeneration harvest areas have been carefully thought out and analyzed by our ID Team. The Garver project area and the NW Yaak Planning Subunit currently has the following percentages of age class distribution:

AGE CLASS DISTRIBUTION COMPARISON

AGE CLASS	Historical Reference Conditions	Existing Conditions Garver Analysis Area	Existing Conditions NW Yaak Planning Subunit
Early Seral (1-40 years)	15-25%	28%	24%
Mid-Seral (41-100 years)	10-15%	17%	25%
Mature (101-150 years)	10-15%	20%	21%
Old Forest (151+ years)	2-64%	34%	29%

The amount of mature and old forest habitat in the project area is 54%, which includes suitable interior habitat for wildlife species. Regeneration harvest has occurred since the 1950's in the Garver analysis area and has totaled 11, 401 acres. Intermediate harvest has also occurred since the 1950's and has totaled 6,132 acres. This equates to 40% of the project area. At this point in time, the project area is a mosaic of early seral, mid-seral, mature, and old forest conditions. The impact of the planned regeneration harvest on the interior forest habitat, which has decreased from the original document and is now 236 acres, would be minimal in the project area. The amount of regeneration harvest would be .6% of the project area.

Response to Comment #15: Please refer to response to Letter #2, Comment #5.

Response to Comment #16: While regeneration harvest undoubtedly opens the canopy, whether or not this actually contributes to drying out the site is a point that is debated in the current scientific literature. (See Brown 2000 "Thinning, Fire and Forest Restoration: A Science Based Approach for National Forests in the Interior Northwest.") In periods of dry weather it makes sense that the site would be drier than an area with greater canopy closure however, in periods of precipitation, the lack of canopy closure allows more moisture to reach the fuels on the ground thereby reducing the fire risk. Also, opening of the canopy may promote the growth of forbs and shrubs that would aid in moisture retention. After the prescribed fuels treatment is completed the areas of regeneration harvest may exhibit less fire behavior than the area pre-harvest. This is due to lower fuel loadings and reduced risk of crown fire initiation.

Response to Comment #17: Snag retention is included in project design and timber sale contractual requirements (ROD Appendix 2 and DEIS pg. 3-79). Also, many of the roads that will be utilized for harvest activities will be closed to the public, including woodcutters. This project meets Forest Plan standards for cavity habitat retention (DEIS pg. 3-80). We will be monitoring units pre-harvest and post-harvest (see ROD Appendix 3).

Letter #2 – Yaak Valley Forest Council

Another concern we have with regeneration harvests is how the district will treat fuels in helicopter units. The district is having a hard time keeping up with prescribed burning and the amount of fine fuels left after regeneration harvests is extremely high, creating a much higher fire danger than what is currently there. Particularly in unit’s 13a, 14, & 15a that are wet forest types and subsequently have a high basal area, the amount of fuels left behind will be tremendous. It is again our recommendation that these units along Mud Creek be dropped from consideration in the project.

I again would like to thank the Garver ID team for considering our input and listening to our concerns. If you have any questions about our comments please feel free to contact us.

Sincerely,

Randy Beacham
Yaak Valley Forest Council

←18

Response to Comment #18: Fuels reduction in helicopter units will be accomplished with a variety of treatment methods not just underburning. (See ROD Appendix 1 for unit specific treatment methods.) Some of the methods proposed are: yarding tops, excavator piling and burning, lop and scatter in units with low existing fuel loads, or a combination of these methods. In the units of particular concern to you, the treatments scheduled are: 13a yard tops, Unit 14 excavator pile and burn, and Unit 15a excavator pile and burn. These treatment options afford us the largest available window to ensure that the treatment is completed. While there may be an increased fire danger post-harvest, this increase is short term (generally one to two years post-harvest) until the fuels treatment objectives are met. Prescribing fuels treatments other than underburning affords us the opportunity to complete the fuels treatments in a timely manner with fewer constraints due to weather and fuel moistures.

December 2, 2002

Michael Balboni, District Ranger
Three Rivers Ranger District
1437 N. Hwy 2
Troy, MT 59935

Dear Mr. Balboni,

At the request of Bob Castaneda, I have reviewed the section on old growth and Pileated Woodpeckers in the Garver Draft EIS, as they pertain to Alternative D. I am submitting the following concerns following my review.

Shape/Edge Concerns:

A significant number of designated old-growth and replacement old-growth areas are both linear in shape and bordered by recent regeneration and intermediate treatment units. The actual effectiveness (or adequateness) of these areas¹ is thereby reduced and could be considered negligible at most despite the fact that they are in compliance with the old growth minimum acreage requirement.

←1

Fuel Reduction Treatments

The proposed fuel reduction treatments in old-growth areas should be limited to the removal of trees smaller than 10” dbh, with the exception of leaving clusters of smaller diameter materials in draws. These will serve as foraging and cover opportunities for both mammalian and avifauna utilizing these old-growth areas.

←2

Unit 17 Treatment

I am concerned about the proposal for regeneration harvest in Unit 17 (19 acres). Unit 17 is located within a larger area identified as meeting the criteria for old growth (section 19 in Compartment 22). The size and shape of this undesignated old-growth area indicates that it has more potential for functioning as effective old-growth habitat than do most of the currently designated linear-shaped areas. Regeneration treatment would result in the reduction in effective acreage and exacerbate concerns regarding habitat fragmentation.

←3

Pileated Woodpecker/Snag Concerns

1) The Garver DEIS reports that “ The 40% snag level equates to approximately 90 snags per 100 acres ...” and that “Population viability for pileated woodpeckers ... would start to become a concern if overall snag levels approach 40%” (p. 3-77). The preceding is based on recommendations from Thomas (1979; p 74.). There is

Response to Comment #1: Under Alternative D-Modified we have retained all effective old growth in the project area and meet Forest Plan standards for retention (see FEIS Appendix M for acreage totals). The purpose of our validation process is to ensure that we are designating the best stands available in the project area. There will be no commercial harvest in old growth with this project. Some of the old growth stands may have edge effects from previous harvest, and linear shapes do occur. Linear shaped stands notably occur when old growth stands are situated along a stream course. The old growth along streams has developed because these areas have historically survived catastrophic wildfires. The areas that follow streamcourses have important moist site old growth attributes and elements of biodiversity that we feel are important to conserve. In addition, during the planning process we were available to look at any site-specific concerns, and considered the options that were recommended to us. We have incorporated site-specific proposals from commentors in the proposed designations of old growth management areas when we developed Alternative D-Modified, and the additional input has been beneficial to the planning process.

Response to Comment #2: Trees slashed in these units will be less than 10” in diameter. Please see ROD Appendix 1-16 for a description of the maintenance burning in old growth. A minimal amount of hand slashing will occur before the area is burned in the spring. The draws would not be entered due to RHCA standards. Also note on Page 3-41, Paragraph 2, for a description of how the old growth areas will be treated.

Response to Comment #3: Unit #17 has been dropped from the selected alternative, retaining habitat with old growth attributes.

Letter #3 – Dr. Catherine A. Schloeder

more recent information, however, that should be considered when determining the impact of the various action alternatives. In particular, the January 2000 Montana Bird Conservation Plan recommends at least 8 snags/ha (e.g., 3.24/ac) with at least 20% > 50 cm (e.g., >19”), for the Pileated Woodpecker. This requirement for maintaining species viability is well above the 100% requirement dictated by Thomas (1979). It is also well above the 70% level that would result from the action alternatives.

2) The Garver DEIS reports that “There are currently 6,969 acres of old growthwithin the compartments of the Garver analyses area” (p. 3-78). The available of cavity habitat is far less than indicated, however, given that 1,133 acres qualify as replacement old growth.²

3) I am skeptical that “the TSMRS database ...reveals snags at a level of 6-11 trees/acre” (p. 3-78). The Northern Region Snag Management Protocol (2000) reports fewer snags for VRUs 1, 2 and 7; and barely 6 snags/ac for VRU 3. I suspect the TSMRS snag analyses to reflect a bias towards VRU 5.

4) Of most concern is whether there is a sufficient number of >19” dbh snags in designated old-growth areas; and whether there will be a sufficient number of >19” dbh snags retained in the action alternatives. It was not clear from the Garver DEIS whether this was the case.

I hope that my comments will be of assistance to the Garver ID Team. Please let me know if you need clarification or require further discussion.

Sincerely,

Catherine A. Schloeder, PhD.

Dr. Catherine A. Schloeder

¹From the standpoint of certain fauna

²Much of the replacement old growth is lacking in snags because of previous logging.

←4

Response to Comment #4: Please see page 3-78 where the Northern Region Snag Management Protocol (2000) is discussed. The analysis for snags was two-fold, one method used the Forest Plan direction for cavity habitat management to maintain at least 40% of potential habitat, which is based on Thomas, 1979. The other method used the Northern Region Snag Management Protocol (2000). Please see Page 3-79, paragraph 4, where it is explained that 4-12 snags per acre will be designated to be left in regeneration units as recommended in the Protocol. Pre- and post-harvest snag surveys would be completed to insure that these recommendations are followed.

←5

Response to Comment #5: Please see FEIS Appendix M which displays a total of 6,815 acres of designated old growth on federal lands (effective and replacement) for old growth dependent species within the compartments of the Garver analysis area. Additionally, there is 2,710 acres of undesignated effective old growth in the analysis area. It is important to note that the replacement old growth is considered “soon-to-be future old growth” (DEIS pg. 3-39, #9). In Alternative D-Modified, the Selected Alternative, there would be an increase of designated old growth acres from 912 to 957. This alternative also drops harvest on 141 acres that is currently available as habitat for old growth dependent species in Compartment 22 but is not designated as old growth.

←6

Response to Comment #6: Your opinion is noted concerning your skepticism about the snag levels reported from the TSMRS database. The Northern Region Snag Management Protocol does report that these VRU’s have fewer snags but it is important to note that the Protocol uses a “cluster” methodology also. The methodology groups like VRU’s together. Please see DEIS pg. 3-9 Vegetative Response Units, and Table 3-3. There are 29,428 acres of VRU 5 land in the project area, which is 69%. With this high of a percentage, the snag levels reported from the TSMRS database would most likely incorporate snags from this VRU.

←7

Response to Comment #7: There will be no commercial timber harvest in designated old growth under the selected alternative.

Dear Mr. Balboni,

As a property owner in the Yaak Valley and supporter of the Yaak Valley Forest Council, I am very appreciative that the Three Rivers ID team has been responsive to the concerns of the local residents regarding the Garver project. I want to add my voice to that mix and ask you to consider the following when finalizing this plan:

- Old Growth Forests - I consider these to be an irreplaceable resource, something to be treasured and protected. Therefore, I applaud the alternatives developed which focus on increasing and maintaining old growth forests in the area of the Garver project. I urge you and other forest managers to continue to recognize the importance of increased protection of old growth areas.
- Noxious weeds - the infestation of noxious weeds in past clear-cut areas poses a danger to plant diversity, and thus availability of forage for large forest mammals. Please consider this when planning the location of regeneration units in the Garver project area. Such units should not be located adjacent to an past clear cut unit, or (preferably) be changed to thinning units.
- Regeneration Harvests/Clear Cuts - I understand that the forests are a resource that will continue to be harvested, but I do not support the use of regeneration harvests or clear cuts unless needed to ameliorate the effects of disease and blow down near private lands.
- Urban Interface Fuels Reduction - I join the YVFC in supporting the plan for fuels reduction by thinning in areas near the town of Yaak. As this plan materializes, please prioritize those areas in greatest need - the drier forest habitats and areas with high density of small trees.

I thank you for this opportunity to make my concerns known to you and look forward to continued cooperation between the Three Rivers District and the YVFC.

Sincerely,
Trish Lauer

←1

←2

←3

←4

Response to Comment #1: Thank you for your comments

Response to Comment #2: Please refer to response to Letter #2, Comment #5.

Response to Comment #3: As described on page 3-14 of the EIS forest health has been considered for the project area and the current conditions have been described in detail. As described in the response to Letter #14, Comment #2, regeneration harvest is only planned where other treatments are not feasible and/or would not meet the purpose and need. As described on page 2-7 “.....regeneration (harvest) is proposed in some stands because the majority of the stand is dead, dying, or diseased, or because the growth of the stand has culminated”. You commented that this treatment method should not be used unless to ameliorate the effects of disease and blowdown near private lands. While there are many reasons to consider implementing a regeneration harvest method, consideration of insect and disease conditions is only one. It is generally accepted in the scientific community that forest ecosystems are more sustainable where endemic levels of insects and pathogens are maintained. There is no scientific reason to limit this thinking to only public lands that are adjacent to private. In fact, the district office has received numerous calls from folks concerned about insect or disease activity on unmanaged Forest Service lands, advancing onto their property. Epidemic levels of insects or pathogens jeopardize forest sustainability and can accelerate conditions that directly affect species ordinarily very tolerant of the normal range of disturbance. For example, the winter of 1996/1997 resulted in such a high level of tree breakage that otherwise low levels of Douglas-fir bark beetle rapidly built up to an outbreak level. Most of the trees killed as a result were large diameter Douglas-fir trees growing in very overstocked, drought-stressed stands that had not been managed to that point. Another example of undesirable conditions includes some of the stands proposed for regeneration harvest where the relic overstory western larch and white pine has no means to regenerate itself. Some of this is due to disease and some of this is due to the exclusion of fire which would ordinarily eliminate most of the competing non fire-adapted trees and create conditions for germination of new seedlings. These are truly species at risk of elimination in those specific areas. The intent of the Garver project is not to eradicate this natural process but to maintain and/or modify conditions that promote resiliency. See also the response to Letter #15, Comment #2 and Letter #16, Comment #4.

Response to Comment #4: Thank you for your support of the proposed fuels reduction projects in the urban interface around the town of Yaak. While there is an identified treatment need in all of the proposed fuels treatment units, the drier forest types and those with an abundance of smaller diameter trees are a priority due to the fire ecology of the sites. Many of the areas have missed 5-7 fire cycles and one of the objects of the fuels treatments is to return fire to the areas.

November 27, 2002

Dear Mike,

First of all let me say thank you to you and the ID team for developing the preferred alternative that focuses on increasing and maintaining old-growth forest in the Garver project area. As you know, old-growth forests in the Yaak are important to me.

I support your proposal to reduce fuels in the urban interface zone around the town of Yaak. I would ask that you focus on drier forest habitats and place the highest priority on areas with high densities of smaller encroaching trees.

←**1** **Response to Comment #1:** Please refer to response to Letter #4, Comment #4.

I support the proposal to move core grizzly habitat farther away from private land and further ask that you increase core habitat during and post project to 55% rather than the 50%-53% that is now proposed in the DEIS.

←**2** **Response to Comment #2:** See response to Letter #2, Comment #4.

I am very concerned about the spread of noxious weeds, particularly hawkweed, into forested land since non-native species reduces plant diversity and available forage for wildlife such as deer, elk, and grizzly. **PLEASE** no regeneration harvest or any other form of clear-cut harvests in the project area that are adjacent to existing regeneration units which already have any hawkweed infestation.

←**3** **Response to Comment #3:** Please refer to response to Letter #2, Comment #5.

I **DO NOT** support regeneration harvest or other various forms of clear-cuts unless there is an urgent need to treat an area of high disease and blow down that is close to private land or residences.

←**4** **Response to Comment #4:** See response to Letter #4, Comment #3.

Another thank you to you and the ID team for listening and responding to local residents concerns about the Garver project. The ID team has been exceptionally cooperative with our requests for field trips, questions and concerns.

Have a wonderful holiday.

Best regards,

Robyn
Robyn King

Dear Mr. Balboni,

I am writing to share my comments regarding the Garver DEIS currently wrapping up it's public comment period.

My husband and I live in the area encompassed by the Garver project near the West Fork of the Yaak River.

First off, I'd like to thank you for taking a proactive approach to management of the old growth trees particularly on Lick Mountain (Compartment 22) and along the Yaak River Rd near the 36 mile marker. These are important steps to managing the area and improving old growth forests.

In light of recent raging forest fires across the west over the past few years, I know that fuel reduction particularly in the urban/wildlands interface is a critical component of the DEIS. The proposal you have put forth for the area east of the town on Yaak is reasoned and reasonable. I support the recommendation you have proposed. I would recommend you set up small sales with local contractors in these areas. I believe this will enable you to fine tune management of the thinning as well as provide much needed jobs for local people in our struggling economy.

As you know, the noxious weed problem is critical all over the Yaak and the Kootenai National Forest and especially in the West Fork drainage. It is particularly problematic in areas that have been disturbed due to many reasons, but most prevalently in regeneration units. The weeds have proven their disastrous nature by overtaking all other native plant species and infesting even wet canopied old growth forests. Since these regeneration units have the highest risk of infestation, I urge you to drop all plans for further regeneration units especially those adjacent to existing regeneration units, or simply do only thinning.

I am in support of your proposal to move the grizzly core further from private lands - however, I would ask you to increase the habitat to 55% of the total throughout the project and beyond.

Thank you for your attention to this matter.

Regards,

Molly McCabe

←**1** **Response to Comment #1:** All action alternatives contain treatment areas that would be economically feasible for small sales. Several of the units along Yaak Highway 92 would be good small sales because they require little road construction or maintenance. The exact size and number of timber sales will be determined during the project implementation.

←**2** **Response to Comment #2:** Please refer to response to Letter #2, Comment #5.

←**3** **Response to Comment #3:** See response to Letter #2, Comment #4.

Letter #7 – Kathryn Posten and Robert Lance

Michael L. Balboni, District Ranger
Three Rivers Ranger District
1437 N. Highway 2
Troy, MT 59935

Nov. 30, 2002

Dear Folks,

First we would like to commend and thank the Three Rivers Garver ID team for being receptive and responsive to the concerns of Yaak valley residents and those of us who care deeply about the future condition of the Yaak.

The Cabinet/Yaak grizzly population is struggling to maintain its tenuous existence - there have been 15 known grizzly deaths in or near this recovery area since 1999. Past management practices have not gone far enough to protect them; extinction looms for them in this area. The Forest Service needs to do everything possible to aid their recovery, so we support the proposal to move core habitat areas farther away from private land but ask that they be increased to 55% or more during and after the project.

← 1

Response to Comment #1: See response to Letter #2, Comment #4.

We applaud the ID Team's attention to old growth management and heartily support the changes they made resulting in the old growth alternative, i.e. dropping the harvest of 122 acres of potential old growth in Compartment 22 - Lick Mt.. We feel that the Yaak has already been logged too heavily and what is left of its last stands of large timber should be reserved.

What we find particularly disturbing is the detection of rampant hawkweed infestation in past clear-cut units in the Garver project area, notably in the West Fork watershed. (This is probably occurring elsewhere on the District as well). In many areas it has completely crowded out the native forage, which totally negates the Forest Service's rationalization for doing regeneration harvesting -- that it opens up areas for browse to grow, thereby benefiting wildlife like elk and deer. What measures are being taken by the Three Rivers District to combat this epidemic spread of noxious weeds? We strongly disapprove of spraying herbicides on the forest -- not only are they dangerous to the health of the ecosystem, small animals, fish and humans, but they are largely ineffective and cost prohibitive. The Forest Service doesn't have the manpower or funds to combat the spread. Since we consider that the invasion of noxious weeds may pose the gravest threat yet to the health of an ecosystem and since regeneration units have the highest risk of infestation, we feel

Letter #7 – Kathryn Posten and Robert Lance

←2

Response to Comment #2: Please refer to response to Letter #2, Comment #5.

that it would be prudent for the Garver ID Team to drop all planned regeneration harvest units that are adjacent to existing regen. units in the project. In this way the infestations could at least be controlled and limited. We feel that the issue of noxious weed infestation should be of extreme urgency to the Forest Service and should be dealt with in every DEIS with the most up to date scientific research and methods of control.

We appreciate this opportunity to have input on the Garver project and appreciate your thoughtful consideration of our comments.

Sincerely,

Kathryn Posten and Robert Lance

To Whom It May Concern,

1) Please conserve as much of old growth as possible without compromising it or wildlife habitat

←1

Response to Comment #1: The selected alternative is designed to retain old growth attributes. There will be no commercial timber harvest in areas meeting old growth criteria. The maintenance burning is designed to protect old growth attributes (see ROD Appendix 2).

2) Move Grizzly (wildlife) Habitat away from human habitation and INCREASE the corridor/core as much as possible.

←2

Response to Comment #2: See response to Letter #2, Comment #4.

3) No more clear cuts, anywhere, any time, for any reason. Better logging and forest management will provide more jobs, more habitats, fewer problems like noxious weeds, and a win-win situation for everyone.

←3

Response to Comment #3: Clearcutting is only proposed where silvicultural diagnosis (see FEIS Appendix L) determined it to be the optimum method after consideration of all alternative treatments. Given that, clearcutting with reserves is being proposed on a very limited basis in this project (0 acres in the proposed action-Alternative B, 60 acres in Alternative C and D, and 47 acres in the selected Alternative). Regeneration harvest (seed tree with reserves, shelterwood seedcut with reserves, and clearcut with reserves) will occur on a total of 236 acres out of 1,744 acres being treated with harvest. This is less than 1% of the project area.

Thank you for all your careful review of this and thank you for your consideration listening to those of us who care about keeping some places wild and functional.

Sharlot B. Battin

Project: Garver DEIS
Date Received: 12/2/02
Comment No. 9

To: Michael L. Balboni, District Ranger
Three Rivers Ranger District

From: Robert and Kimberly Dannemiller

Subject: Garver Project, Draft Environmental Impact Statement

We understand the need to protect our forests and homes from fire and destruction, to make them resilient and sustainable for the future. We understand the need to save our trees from disease and to remove unhealthy stands, to improve growing conditions in old growth areas and manage overcrowded areas. We realize the need to reduce fuels and prepare the forest for possible future burns. We understand the desire to maintain a healthy interface between wildlife and humans, to improve wildlife habitat for the benefit of nature and man.

However good intended these actions that are proposed appear, we fear for the pristine and fragile environment of the Yaak. The photo in Appendix B-2 disturbs us. The idea that huge stands of forest will be reduced to 5-7 trees per acre is appalling. The need for fire and burning in areas around our home and land disturbs us. We know how fragile and how dense the forest is, and maintaining a controlled burn would be difficult in the best conditions. We question the effect these burns and harvest would have on our water sources and if such a large undertaking is the correct form of action.

We choose to live in the Yaak because of its natural beauty and beautiful scenery. It's wildlife and diverse animal population is unmatched in all of the United States. That is why we choose, of every place we have ever visited or seen, to live in the Yaak Valley. Please do not destroy the sanctuary and peace so many of us call home.

We realize, ultimately, that we probably have no say in the actions our government agencies choose to implement. We appreciate that you may be receptive to our comments and concerns. Please take into consideration the impact this project will have on our community, our future generations, and of most importantly, the environment around us. We ask that you proceed with great caution and prudence. Heed the warnings of nature. Act in the best need of all concerned and maintain the balance between nature and man.

Sincerely,

Kimberly Dannemiller
Robert Dannemiller



Response to Comment #1: Active forest management has been occurring in the project area since the 1950s. The intent of the photos was to show examples of existing forest conditions and a variety of results expected, over time, from treatments being proposed. It is important to view the photos from a temporal perspective and note the expected change over time. The reference you made to the proposal of leaving only 5-7 trees per acre applies only to areas proposed for a clearcutting with reserves treatment. This method would be utilized for 4 units totaling 47 acres and which range from 21 to 6 acres in size in the selected alternative. There are no plans to administer this treatment over "huge stands of forest."

←1

←2

←3

Response to Comment #2: I understand your concern regarding the fuels treatment area near your property. Our proposed treatment for unit C is a mechanical fuels treatment with excavator piling of the slash and burning of the piles. (ROD Appendix 1) While there is a risk of escape with any prescribed burning, this risk is reduced when burning piles versus underburning. Pile burning on the Three Rivers Ranger District is traditionally done in late October and November. Pile burning is not done until there has been significant moisture and in most cases there is snow on the ground. This is particularly true when burning near private property.

Response to Comment #3: The proposed activities of the Garver project are mostly thinning and underburning which are much less impactful than some previous harvesting in the Yaak which involved clearcutting large areas and slash piling with bulldozers. The activities are also spread out over multiple watersheds, minimizing the effects such as water yield increases. Riparian areas, including springs and wetlands, would not be harvested. No downstream effects on small streams, springs, or groundwater levels should occur with the type and scale of treatments proposed (see DEIS Water Resources analysis, pgs. 3-120 – 3-136). The proposed burns are lower intensity underburns or pile burns that would be preceded by mechanical or hand slash treatment. The medium to large size trees would be retained. The risk of these burns becoming large enough and severe enough to affect water quality is very low.



United States Department of the Interior

OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
Denver Federal Center, Building 66, Room 1003
P.O. Box 25007 (D-108)
Denver, Colorado 80225-0007

November 26, 2002

ER 02/997

Michael L. Balboni, District Ranger
Kootenai National Forest
Three Rivers Ranger District
1437 N. Highway 2
Troy, Montana 59935

Garver
Date Received *12/2 11/29/02*
Comment No. *10*

Dear Mr. Balboni

The Department of the Interior has reviewed the Draft Environmental Statement for the Garver Project, Kootenai National Forest, Lincoln County, Montana and has no comment.

← **1** **Response to Comment #1:** Thank you for your review. Your reply is noted.

Sincerely,

Robert F. Stewart
Robert F. Stewart
Regional Environmental Officer

Dear Mr. Balboni,

First I want to say that the Garver ID Team has been a pleasure to work with, has listened to my concerns and those of the Yaak Valley Forest Council and consequently modified some of the proposed projects in what I consider a positive direction. I appreciate in particular that the fuels reduction in the wet forest at 35 mile was dropped, and Unit 38 changed from regen to intermediate cut and reduced in size. I also appreciate the replacement of the term "precommercial harvest" with the less presumptive "noncommercial harvest." Now if I could just get the YVFC members to catch on. In general I support the Old Growth Alternative D; however, I would still suggest a few changes to be made in my neighborhood, in the areas I frequently walk in and am well familiar with. I would change the BURN D unit to hand piling, to avoid ground cover disturbance and weed infestation, and would eliminate intermediate cut 38-A. It's only 16 acres, and for this almost a mile of Lap Creek Rd. will have to be sprayed. This road is ridiculously wide, and small pines and cottonwood and alders are working in from the edges to heal it, and I think it would be a mistake to kill them. Also I see that the rationale for 38-A is to improve elk winter range by reducing the canopy 30%. Elsewhere in the Garver EIS I read that canopy cover for elk winter range should be a minimum of 60%. It doesn't say what the upper limit would be if there is one, but I'm guessing from having walked by that unit many times that the canopy cover is presently within the range for elk winter range, and if logged, would probably be below it. And in any case, this unit is located in the neighborhood of a zillion acres of no cover at all. Another consideration is the lack of snags in the Lap Creek drainage, and the fact that if this road is opened to firewood cutters, what few there are will be gone. I see that Unit 38 is to be logged in winter--which I commend--so if 38-A were dropped, no road work would be necessary above the Waper spur. Please consider dropping Unit 38-A.

I'm sure you are hearing this alot but throughout the Garver project, every precaution needs to be taken to prevent further weed intrusions into the forest, and in my opinion some of the worst weed patches that are already in the forest should be sprayed--in other words, the spray program needs to be expanded beyond just roadsides.

I support the readjustment of core grizzly bear habitat that is planned, but agree with other Council members that core should be increased to 55% during and after the project.

From the point of view of one who thinks that what the Garver project area needs

←1 **Response to Comment #1:** Hand piling is prescribed for Burn D (see ROD Appendix 1, Natural Fuels Treatment Summary). Hand piling will likely reduce ground disturbance, which would reduce vulnerable habitat to weed infestation. Weeds on Lap Creek road would likely be sprayed using Transline, which uses the herbicide Clopyralid. Clopyralid selectively kills plants in the legume (*Fabaceae*), buckwheat (*Polygonaceae*) and sunflower (*Asteraceae*) families. Clopyralid will not kill cottonwoods, alder or pine trees. Clopyralid is an excellent tool for control of hawkweeds (*Hieracium* sp.), spotted knapweed (*Centaurea maculosa*), Canada thistle (*Cirsium arvense*) and other members of the plant families above. It is not effective for control of common St. John's-wort (*Hypericum perforatum*), which is fairly common on road systems on the District, but generally not as widespread or dominant as the hawkweeds and spotted knapweed. Transline could effectively be used to manage the majority of weeds on the Lap Creek road while leaving other vegetation intact.

←2 **Response to Comment #2:** On Page 3-46, paragraph 2, there is a discussion on cover:forage ratios and current recommendations for elk winter range. It states: "1) to maintain at least 60% cover on winter range....." Unit 38A would have a 30% canopy cover reduction, which would leave 70% cover on site. When we analyzed big game winter range habitat improvement, we looked at a larger picture than a unit-by-unit basis. The winter range in the area is over-browsed in some areas and to open up this canopy would rejuvenate the browse component by allowing sunlight to stimulate growth.

←3 **Response to Comment #3:** Due to habitat effectiveness considerations for grizzly bear, Unit 38A is planned as a winter log unit although this fact was omitted from the DEIS Timber Harvest Treatment Summary, on Appendix A-11. This road would be closed for the duration of the harvest activities to the public and thus, the snag component would be protected.

←4 **Response to Comment #4:** See Response to Letter #2, Comment #5.

←5 **Response to Comment #5:** See response to Letter #2, Comment #4.

Letter #11 – Mary Campbell

most is a couple of centuries to recover from past management practices, the best thing about this project is that there isn't more of it. I have no quarrel with most of the intermediate cuts, or the fuels reduction on the dry hills above Yaak, but I am adamantly opposed to "regen" cuts in their various manifestations because of the ecological damage they inflict and the way they look and the total lack of respect they show the landscape. I have been studying the pictures in Appendix B, and, wondering how anyone could really regard B2 as an improvement over B1. B2 is what I'd call an ecological disaster area: where there was a forest, albeit crowded (is that a sin? according to what I read, photos from the turn of the last century show that presettlement forests in this region were often quite crowded), there is now a hot arid plain with none of the usual forest components remaining, just those lonesome spindley larches. I see very little downed woody material, almost no snags, no shrubs or ground cover beyond, I'm guessing, knapweed and Canadian thistles. What a MESS. And that isn't the only scary picture. B8 apparently represents the idealized version of B7 three years after "treatment." B8 is lovely indeed--for a city park! But a forest?? This "forest" has no downed woody material, no snags, no plants of shrub height--serviceberry/buffaloberry/thimbleberry/etc.--no seedlings or saplings. It may be an "improved stand," but it certainly is not a forest. In fact these pictures have got me wondering all over again to what extent the Forest Service has accepted that a healthy forest has a lot of unhealthy trees in it--crooked trees, slanty trees, bear-chewed trees, trees with branches on only one side, trees with budworm--plus dead standing trees, plus downed dead trees decaying into the duff, plus the insects and diseases that kill the trees that decay to give life to future trees--the ants and bark beetles and mistletoe and lichens--plus the micorrhizal fungi, plus.....These pictures have got me wondering whether the Forest Service is prepared to manage for a FOREST, and not a "stand." These pictures have got me worried.

Sincerely,
Mary Campbell

←6

Response to Comment #6: The photos used in the appendix are intended as a visual aid to show on a temporal basis change expected over time, following some of the treatments proposed. They show only one example of each condition, which may or may not represent all proposed outcomes. In a nutshell, photo B-1 shows conditions that are considered undesirable from a forest health perspective. The fire adapted western larch overstory is old, unhealthy and has no means to regenerate due to fire exclusion and loss of vigor due to accompanying tree competition and dwarf mistletoe infection. The non-fire adapted species make up the majority of the stand, are not resilient or long-lived and are found to increase the intensity of wildfire when it does occur under uncontrollable conditions. Fires burning in this vegetative condition have been of higher intensity than normal and often kill the overstory trees. The conditions depicted in photo B-1 do not represent any resemblance to historic conditions that we are familiar with. We agree that photo B-2 with the resulting treatment has little downed woody material. The snags are there and the numbers meet Forest Plan standards. There are numerous understory plants and shrubs present in this stand, all representative of an early successional phase. Photo B-8 was taken in an area that has been managed with prescribed fire and thinning from below. It is considered fairly typical of forest conditions that would have been expected throughout the Hensley Hill area under natural conditions. The rich flora of the understory is not entirely captured in the photo at this scale. There is a lot more forest structure and integrity to the stand, than what was captured in the photo. The area is considered very resilient to changing forest conditions and would not be adversely affected in the event of an unplanned wildfire or Douglas-fir beetle outbreak. Wildlife use has increased dramatically since the prescribed activities due to an increase in browse. In contrast, while Photo B-7 may be pleasing to the eye, is quite overstocked with young trees and the canopy is closed. Wildlife use the area for security but browse is limited and of poor quality. An unplanned fire in this condition would be of an uncharacteristic crown fire, and would very likely kill most of the trees, including the overstory. Fire exclusion has allowed for a very high density of trees, and very deep duff accumulations. The photos were intended to give the public more insight, especially into the future of managed forests. I can see that more work has to be done in this medium. As it appears that there is a misconception that present forest conditions represent 'natural' conditions, the DEIS Forest Vegetation analysis attempts to provide insight into what constitutes the structure of past forest conditions.

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December 2, 2002

Michael Balboni, District Ranger
Three Rivers Ranger District
1437 Highway North Highway 2
Troy, Montana 59935

Mr. Balboni:

The following are comments on the Garver Draft Environmental Impact Statement (DEIS), on behalf of the Ecology Center, the Lands Council, and Alliance for the Wild Rockies.

We incorporate the Ecology Center’s January 25, 2000 letter to the KNF Forest Supervisor, as comments on the Garver DEIS. We also incorporate the Ecology Center’s and the Lands Council’s scoping comments on the KNF/IPNF Forest Plan revision, including all attachments, as comments on the Garver DEIS. Please place a copy of those letters in the Project File as responsive to your request for comments on this DEIS. The contents of the letters are based upon many years of experience in the public involvement process on the Three Rivers Ranger District, the KNF and the national forests of the region as a whole.

Despite the fact that recent Forest Service (FS) actions have occurred (such as West Yaak and others) or are ongoing in the project area watersheds, the DEIS omits significant monitoring information that was to have been gathered following those actions. In addition to the lack of such monitoring disclosures, the DEIS also does not indicate if all aspects of those actions, including road closures, obliteration, and other restoration actions, have been completed as stated in the NEPA documents. Such lack of disclosures makes it very difficult for the public, as well as the FS, to understand how conditions in the project area compare to baseline, or pre-development, conditions.

←1

Response to Comment #1: The letters referred to are not site-specific to the proposed activities and the decisions to be made for this project. The issues discussed in these letters are more appropriately addressed at the Forest Plan or broader scales.

←2

Response to Comment #2: Monitoring information, including Forest Plan monitoring reports, is located in the Project File. All of the West Yaak project area is outside the Garver project area. There is a small area of overlap outside the Garver project area in the Pete Cr. drainage. Current and foreseeable actions pertinent to the cumulative effects analysis are discussed on DEIS pgs. 3-1 and 3-2. Cumulative effects analysis areas are discussed by resource in DEIS Chapter 3.

Letter #12 – The Ecology Center

We believe that the FS has its priorities very backwards given the fact that the Forest Plan has expired and revision is overdue. Indeed, conditions have changed significantly, to the point where the Forest Plan can no longer be genuinely represented as responsive to existing conditions. The inadequacies of the Forest Plan have been known for years, yet the FS presses forward as if those facts are irrelevant.

Three species which occur on the KNF have been listed under the Endangered Species Act (ESA). These include the bull trout, the Kootenai River white sturgeon, and the Canada lynx. Furthermore, the U.S. Fish and Wildlife Service has made a determination that the grizzly bear, considered to be a “Threatened” species throughout its present range, is warranted to be uplisted to “Endangered” status in the Cabinet-Yaak ecosystem, which includes a large portion of the land within the KNF. This is largely due to the fact that population levels remain so low as to not constitute a viable population. And the KNF’s forest fisheries biologist has admitted that viable populations of bull trout do not exist on the Forest. Under NFMA, this is significant information because the regulations themselves prohibit loss of viability of any vertebrate species.

Furthermore, the Forest Plan Amendment process is underway for both the grizzly bear and the lynx. And the listing review process for another fish species, the burbot, is presently underway.

Since the signing of the Forest Plan ROD, there have been tens of thousands of acres of the KNF that have been affected by wildland fires.

The wildland fires have resulted in thousands of acres of old growth removed from the KNF inventory. This, along with the fact that the FS has never demonstrated that 10% old growth below 5,500 feet has been maintained at any point in time during the life of the Forest Plan, means that the Plan’s old growth protection provisions have been or have become ineffective.

The impacts on the soil, water, wildlife habitat, and vegetation from these fires have significantly changed conditions on the Forest beyond any level contemplated or anticipated by the Forest Plan EIS.

The impacts of both fire suppression have also been quite significant, beyond any disclosures in the Forest Plan EIS. Results of scientific assessments of the KNF are included in the Interior Columbia Basin Ecosystem Management Project (ICBEMP) EIS and accompanying documents. These results suggest vast changes in vegetation have resulted from successful fire suppression.

←3

Response to Comment #3: The Kootenai National Forest is in the process of Forest Plan revision. The approved 2003 appropriations included the following language, “Prior to October 1, 2003, the Secretary of Agriculture shall not be considered to be in violation of subparagraph 6(f)(5)(A) of the Forest and Rangeland Renewable Resources Planning Act of 1974 (16 U.S.C. 1604(f)(5)(A) solely because more than 15 years have passed without revision of the plan for a unit of the National Forest System. Nothing in this section exempts the Secretary from any other requirement of the Forest and Rangeland Renewable Resources Planning Act (16 U.S.C. 1600 et seq.) or any other law: *Provided*, That if the Secretary is not acting expeditiously and in good faith, within the funding available, to revise a plan for a unit of the National Forest System, this section shall be void with respect to such a plan and a court of proper jurisdiction may order completion of the plan on an accelerated basis.”

←4

Response to Comment #4: The Fisheries BA for this project discloses that there would be no effect from project activities based on the nature of the proposed actions and the distance to point of effect. Effects to other threatened and endangered species are disclosed in the wildlife BA and DEIS pgs. 3-50 – 3-63. Documentation of concurrence from the U. S. Fish and Wildlife Service is located in the Project File.

Response to Comment #4a: The Biological Assessment for fisheries (see fisheries section of the project file) finds that “all proposed activities would have no effect on bull trout.” “Bull trout would not be directly or indirectly affected by the proposed activities because of their nature and magnitude compared to the size of the Yaak River drainage. In addition, the nearest bull trout to the location of the proposed activities are in the Yaak River below Yaak Falls, about 34 river miles from the proposed activities.”

←5

Response to Comment #5: Information contained in these amendment processes is considered in the DEIS analysis of these species.

←6

Response to Comment #6: The Garver project area has not experienced large wildfires in recent history. The most recent large fire in the project area was in 1940 (see DEIS Fire History Map, M-10).

←7

Response to Comment #7: The methodology for the old growth analysis is explained on DEIS pgs. 3-37 thru 3-39. The analysis for species that have a preference for old growth is addressed on DEIS pgs. 3-77 thru 3-80. As explained on the FEIS Appendix M, 10.5% of KNF acres below 5500 feet is effective old growth.

←8

Response to Comment #8: See response to Letter #12, Comment #6.

Letter #12 – The Ecology Center

The FS has never provided adequate protection for designated old growth as the Forest Plan requires, resulting in a widespread loss of the snag habitat due to firewood cutting and other activities adjacent to open roads.

←9

So-called “desired conditions” related to Vegetative Response Units have at best indirect relevance to the Forest Plan Management Areas. These “desired conditions” are significantly different than those considered in the development of the Forest Plan, and therefore these decisions have never been subject to public, other government agency, and scientific peer review as required by NFMA and NEPA regulations and the Section 7 consultation requirements under ESA.

←10

The impacts of fighting fires is quite significant, as demonstrated for the fires of 1994 and 2000, in project file documents, and in Burned Area Emergency Rehabilitation (BAER) reports. Other impacts include those on wildlife resulting from the opening of large areas of otherwise secure habitat when firefighting is occurring, as road gates are opened and berms are removed, allowing unlimited access when Forest Plan Standards or other requirements normally require the roads to be closed. Again, these impacts were not disclosed in the Forest Plan EIS.

←11

The Forest Plan requires periodic monitoring of economic factors relating to the implementation of the Forest Plan. Because the reduction in the amount of timber logged annually on the KNF is well below that level expected, changes in the economy of communities within and near the KNF have been significantly affected.

←12

We are constantly reminded that maintenance of the road system on the KNF is sorely behind schedule. It is very evident because practically every timber sale NEPA document contains a Purpose and Need statement regarding the bad condition of roads in the project areas. This is also reflected in the Roads Policy.

←13

The overwhelming sentiment on the part of the American Public for protecting all Roadless Areas from resource extraction, clearly demonstrated in the process of adopting the Roadless Policy, is not recognized in any planning documents supporting the Forest Plan ROD.

←14

The Forest Plan also never anticipated nor disclosed the degree to which land management activities, including timber production grazing, and management of recreational activities, would lead to vast areas of the Forest being infested with noxious weeds. This is reflected in recent Forest Plan Monitoring and Evaluation Reports, and also in the adoption of the Herbicide Weed Control Project, itself a decision that should have been a Forest Plan Amendment rather than deceptively having been labeled a ten-year “project” with completely open-ended levels of weed spraying.

←15

Response to Comment #9: See response to Comment 12-7. Loss of snags along open roads is included in the old growth analysis (see DEIS pgs. 3-37 – 3-42 and FEIS Appendix M). The analysis of the selected alternative shows there is the potential for an increase in snag loss within approximately 8.8 acres, primarily along the Garver Mtn. Rd. #5857 (opened to maintain motorized access opportunities to offset the road closures for grizzly bear core), while approximately 25 acres of old growth snag habitat along roads will be protected with this project through the berming of the Benefield Rd. #5840 for creation of grizzly bear core.

Response to Comment #10: The purpose and need for this project is based on Forest Plan goals and objectives as described in the Garver DEIS. The VRU analysis provides recommendations for management, not directives or standards. The “target” landscape conditions are focused on outcomes rather than output and are just one building block in the forest’s effort to adapt its management towards ecosystem-based science.

Response to Comment #11: The Garver project area did not experience large fires in 1994 and 2000. See response to Letter #12, Comment #6.

Response to Comment #12: The effects of changes in the economies of local communities from what was considered in the Forest Plan is outside the scope of this project and will be addressed through the Forest Plan Revision process currently underway. The effects to the economies of local communities from this project is discussed at DEIS pgs. 3-166 thru 3-170.

Response to Comment #13: The Garver project does not include such a purpose and need statement.

Response to Comment #14: This project does not propose “resource extraction” within a roadless area.

Response to Comment #15: Noxious weed spread is analyzed in this project. A weed treatment plan specific to this project was developed and is discussed in ROD Appendix 2. Decisions made in the 1997 KNF Herbicide Weed Control EA project, the Forestwide Blowdown project, and the Forestwide Fuels project are outside the scope of the Garver project.

There are other forestwide “projects” which were meant to respond to significant “new information” including the Forestwide Blowdown project and the Forestwide Fuel Reduction project.

The Forest Plan development process and EIS also never anticipated the almost universal practice of adopting Forest Plan amendments and “exceptions” for major timber projects on the Forest. These amendments and “exceptions” lessened the protection of wildlife habitat by allowing Forest Plan Standards to be violated routinely. The forestwide impacts on wildlife habitats and Forest Plan EIS assumptions have never been adequately considered.

The Forest Plan EIS also did not anticipate that the corporate timber land owners would be logging the land within or adjacent to the boundaries of the KNF so heavily that the checkerboard pattern would be visible from space. This is clearly visible in the KNF’s poster, “Portrait of the Kootenai: A Working National Forest” which we incorporate into these DEIS comments.

The 1995 Federal Wildland Fire Management Policy and Program Review (FWFMPPR) mandated that the FS prepare a Fire Plan for the KNF, yet no such Fire Plan development has seen the NEPA light of day since the FWFMPPR policy was adopted in 1995. Also, the Fire Plan adopted by Congress last year following the 2000 fire season has major Planning-level implications that the FS has not responded to for management of the KNF.

The DEIS includes a map showing past clearcuts in the project area, but fails to include a map of all past logging. Typically, partial cutting involves impacts that are quite significant also.

The Purpose and Need is biased away from ecological sustainability and too far towards stand manipulation as “solutions” to the narrowly-perceived “problems.” For example, despite the fact that the West Fork of the Yaak River is listed as a Water Quality Limited Segment and that other streams in the project area have been significantly impaired by previous management actions, watershed restoration is not a part of the “purpose and need” nor is it considered a significant issue by the FS. This is a grave omission that seriously undermines the entire NEPA process.

The DEIS at 2-5 states that the FS intends to pursue restoration but that the analysis of such actions do not need to be included in an EIS. If they are worth pursuing, then tell the public what they are and analyze the impacts in this EIS. NEPA requires that foreseeable actions in the same geographic area be included. What the DEIS at 2-5 is really saying is that no watershed restoration is needed if it can’t be tied to logging, which is a serious indictment of your current management regime.

←**16** **Response to Comment #16:** The Garver project does not include Forest Plan amendments or exceptions. The use of these tools for project-specific activities is outside the scope of this project.

←**17** **Response to Comment #17:** There are no corporate timberlands in the Garver project area.

←**18** **Response to Comment #18:** The Kootenai National Forest has a Fire Management Plan which complies with the regulations mandated by Congress. Wildland fire management is being dealt with in the Forest Plan revision process.

←**19** **Response to Comment #19:** The DEIS includes a map of past regeneration harvest, including shelterwood, seed tree, and clearcuts. Past partial harvest is considered in the affected environment analysis by resource in the DEIS Chapter 3.

←**20** **Response to Comment #20:** The purpose and need for the Garver project included vegetative treatment to accomplish a host of desired resource objectives with ecosystem sustainability as the cornerstone. Development of the purpose and need for this project was developed from the landscape assessment (located in the project file) and is explained in the DEIS Chapter 1. The scheduling of watershed restoration work was not deemed a critical need at this time as compared to other areas on the district. The MOU with the State allows vegetation projects to proceed in watersheds that have streams on the 303(d) list if beneficial uses are protected. Documentation concerning the protection of beneficial uses is found at DEIS pg. 3-136.

←**21** **Response to Comment #21:** Nowhere on page 2-5 does the DEIS state that the FS intends to pursue restoration but that the analysis of such actions do not need to be included in the EIS. Your statement misrepresents what is stated at DEIS pg. 2-5. A purpose and need for watershed restoration was not identified for this project, and site-specific future restoration actions have not been identified and therefore are not “reasonably foreseeable”. Currently the Kootenai National Forest is involved with two assessment efforts in this area that may result in the identification of restoration needs in the Garver project area. The Forest is working with EPA to develop the Yaak Basin TMDL that is scheduled to be completed in 2004. The Forest is also working with a partnership group called the Yaak Headwaters that is collecting sediment and culvert data. Once restoration needs are identified and prioritized, the appropriate NEPA analysis and public involvement will be initiated. Future projects may or may not be tied to vegetation management proposals. As displayed in the DEIS Water Resources analysis, Tables 3-40 thru 3-42, the existing channel stability of watersheds in the project area ranges from fair to excellent, and most of them have a low watershed sensitivity rating. Channel stability and watershed sensitivity is explained on DEIS pg. 3-125 thru 3-126.

Some species of trees, native insects, and disease organisms are discussed in the DEIS as “invasive” or somehow bad for the ecosystem. The DEIS’s contentions that conditions are somehow “unnatural” runs counter to more enlightened thinking on such matters. For example, Harvey et al., 1994 state:

Although usually viewed as pests at the tree and stand scale, insects and disease organisms perform functions on a broader scale.

...Pests are a part of even the healthiest eastside ecosystems. Pest roles—such as the removal of poorly adapted individuals, accelerated decomposition, and reduced stand density—may be critical to rapid ecosystem adjustment

...In some areas of the eastside and Blue Mountain forests, at least, the ecosystem has been altered, setting the stage for high pest activity (Gast and others, 1991). This increased activity does not mean that the ecosystem is broken or dying; rather, it is demonstrating functionality, as programmed during its developmental (evolutionary) history.

Using earth berms to increase grizzly bear security and core is not effective as assumed by the DEIS. The only way to prevent motorized use on roads is to obliterate them, including their stream crossings. This also aids in improving water quality and fish habitat.

The FS is in the process of amending the Forest Plan in order to adopt standards and criteria for access management in grizzly bear habitat. The Grizzly Bear Access Management Forest Plan Amendment, as proposed, will require numerous changes in access affecting Open Motorized Road Density (OMRD), Total Motorized Road Density (TMRD) and Core. Standards for acceptable levels of these components will be adopted by the FS through the amendment process. Initiating implementation of this project when the Forest is on the verge of adopting new access management standards for grizzly bears is illogical and has potential for NFMA violations. If the project does not meet the new standards, the decision to implement it will violate the Forest Plan.

This project should be delayed until the Forest Plan amendment is finalized in order to make the adjustments necessary to bring the project into compliance with the new standards. Going forward with Garver prior to finalizing the Forest Plan amendment could also limit the choice of alternatives for the amendment, in violation of NEPA.

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Response to Comment #22: We are familiar with the citations you used by Harvey et. Al, 1994 and agree with this view of insect and diseases. Both the Forest Plan goals and elements of the purpose and need note that promoting endemic levels of insects and disease is desired, not eradication. Some of the restorative treatments proposed occur where conditions do not appear to be present for any natural processes to maintain certain tree species or important habitat components. Please review the framework for consideration of insects and disease, by reading the Forest Health section, beginning on pg. 3-14 in the DEIS. The management strategy of this project emphasizes the beneficial role that insect and diseases play in maintaining resource and ecosystem functions.

Response to Comment #23: The district ensures effectiveness of earthen barriers in providing for bear security and core through active monitoring of closures. When a breach is discovered, either by the public or employees, our personnel take action to correct the situation. Our yearly monitoring of road closures and road conditions through our Adopt-A-Road Program has been very successful for finding areas that have been compromised. When culverts are removed on the district, it is to provide for watershed health, not to restrict motorized access. On this district conditions are often conducive to shrub growth, in particular alder, so the road may be grown in with brush in 5-10 years and/or blocked by blowdown. The district is committed to grizzly bear recovery and has found earth berms to be an effective method of closure.

Response to Comment #24: The Garver Biological Assessment displays the Open Motorized Route Density and Total Motorized Route Density. The Garver project meets the proposed standards related to the above from the Grizzly Bear Access Management Forest Plan Amendment (maximum of 33% OMRD and maximum 26% TMRD). Please see the following tables:

EXISTING, DURING, AND POST OMRD % OF BMU >1 MI/SQ. MI.*

BMU	Existing	During	Post project
15	29.7%	26.5%	26.5%

EXISTING, DURING, AND POST TMRD % OF BMU >2 MI/SQ. MI.*

BMU	Existing	During	Post project
15	32.2%	29.0%	25.4%

*Garver Biological Assessment, 1/2003

Response to Comment #25: The Garver project incorporates information from the Grizzly Bear Access Management Forest Plan Amendment, including the Grizzly Bear amendment FEIS preferred alternative standard for core of grizzly bear core to 55% of BMU 15.

Near constant disturbance from timber sale activities in the Cabinet-Yaak Recovery Zone have undoubtedly displaced grizzly bears from preferred habitat for the last thirty years, particularly in the Yaak. During the ‘70’s, ‘80’s and early ‘90’s timber sale activities resulted in increasingly high road densities and a reduction in available long term stable secure (core) areas in the Yaak portion of the Recovery Zone. For the last 10 years timber sale activities have resulted in constant shifting of road closures and core.

←26

As a result females and their young have been displaced from formerly safe and familiar habitats and forced into habitats that are unfamiliar and therefore dangerous where harm is more likely to occur, both from human and natural causes. Likewise, displaced males move into new territory where they may present a threat to females who cannot defend their cubs, or themselves (in the case of bear 106, whose cubs and own death has been attributed to predation by a male grizzly) from aggressive male interlopers. A direct link between displacement due to high road densities, unstable secure areas and human disturbance, and high mortality and lowered reproduction rates has been well-established.

Road closures and secure areas are shifted every year in order to accommodate timber sale activities in the Yaak portion of the Recovery Area. The Garver DEIS failed to consider the cumulative effects of displacement on the Cabinet-Yaak grizzly population.

←27

The relatively small roadless areas in the Yaak provide the only unfragmented habitat and stable security remaining in the Yaak portion of the Recovery Area. Unfortunately the few remaining roadless areas in the Yaak do not provide enough area to meet the core needs of grizzly bears. Some portion of the roaded areas must be maintained free from motorized travel for long enough periods of time that grizzly bears will utilize them.

←28

The cumulative impacts of past, current and foreseeable timber sale activities on core habitat were not considered in the DEIS.

The ESA requires federal agencies to “conserve” listed species and disallows the “taking” of listed species. Harassment (in the form of displacement from preferred habitat) and harm (in the form of degradation of habitat and failure to supply adequate security) constitutes taking and is in violation of the ESA. Given the fact that the Cabinet-Yaak grizzly bear population’s status is “warranted” for uplisting to endangered status and that the population trend is negative, clearly there is a need to improve grizzly bear security and avoid further impacts to grizzly bear habitat.

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The DEIS’s conclusions are not based on the best available science as required by the ESA. Choice of one of the action alternatives will fail to ensure the long term viability of the grizzly bear, as required by NFMA.

←31

Response to Comment #26: Please see Page 3-53, Displacement or Core Areas, for the discussion of displacement. In paragraph one, the requirements of core area are stated: no motorized access (roads or trails) during the active bear season, and be at least 500 meters from open or gated roads. Thus, these roadless areas in the Yaak do provide for the needs of grizzly bears. Within the Garver BMU, the amount of open roads decreased by 18%, from 176 mi. to 145 mi., during the period of 1978 to 1987. An additional decrease of 24%, from 145 mi to 110 mi, occurred between 1987 and 2001. The quantity of closed roads within the Garver BMU increased 840%, from 15 mi. to 126 mi., during 1978 to 1987. From 1987 to 2001, the amount of closed roads decreased to 79 mi. due to road decommissioning. The result of the decommissioning was a removal of 82 mi. of road across the landscape. The total amount of roads (open and closed) existing in the BMU by 2001, was less than existed in either 1978 or 1987 (Summerfield, Johnson & Roberts, Unpublished, 2002). Please see Page 3-56 for the cumulative effects section, where management activities and core habitat are addressed. The Grizzly Bear analysis, Page 3-50-57, recognizes the need to improve grizzly bear security and demonstrates how the Garver project will improve habitat security. Grizzly bear management and analysis is guided by the Kootenai National Forest Plan standards, and project Biological Opinions and consultation agreements. Currently, grizzly bear analysis is guided by the amended USFWS Biological Opinion and Incidental Take Statement (McMaster 1995), the Kootenai National Forest Plan, and new information contained in the “Final EIS Forest Plan for Motorized Access Management within the Selkirk and Cabinet-Yaak Grizzly Bear Recovery Zones” (Kootenai, Lolo and Idaho Panhandle National Forest, March, 2002). Under the preferred alternative, grizzly bear core would be fixed in place for 10 years minimum.

Response to Comments #27 through #31: The intent of grizzly bear core area is to provide secure habitat. Core areas often include roadless areas. The goal for grizzly bear management on the Kootenai National Forest is to provide sufficient quantity and quality of habitat to facilitate grizzly bear recovery. A number of measures are used to gauge whether habitat objectives are being met over and above roadless areas as guided by the amended USFWS Biological Opinion and Incidental Take Statement (McMaster 1995), the Kootenai National Forest Plan, and information contained in the “Final EIS Forest Plan for Motorized Access Management within the Selkirk and Cabinet-Yaak Grizzly Bear Recovery Zones” (Kootenai, Lolo and Idaho Panhandle National Forest, March, 2002). Please see Grizzly Bear analysis, DEIS pg. 3-50-57 for this discussion. Under the preferred alternative, grizzly bear core would be fixed in place for 10 years minimum.

Letter #12 – The Ecology Center

The DEIS fails to disclose how the FS has made roadless area boundary determinations, so that it can be clearly understood which project activities are inside de facto roadless lands.

←32

Response to Comment #32: Page 3-152 of the DEIS clearly shows how the Inventoried Roadless Areas (IRA) and boundaries were determined and what methods were used to determine these boundaries. Page 3-154 clearly states the number of acres and type of activity proposed by alternative in the affected Roadless Area. Maps M1, M2, M4, M5, and M6 show the IRA boundaries and map M4, M5, and M6 show the activity area proposed in the IRA.

Despite stating a need for improved winter range conditions for big game, the DEIS does not disclose population trends within a properly defined cumulative effects analysis area.

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Response to Comment #33: According to Montana Department of Fish, Wildlife and Parks Wildlife Biologist, Jerry Brown, population trends for ungulates in the area have improved since the winter of 1996-1997. That winter, 60% of white-tailed deer and 40-50% of mule deer populations died off in Hunting District 100, due to very high snow levels. In 1998 and 1999, Brown states the fawn and calf crop was exceptional. 2000 and 2001 fawn and calf crops leveled off, but in general the population is improving. The defined analysis area for big game is the project area (see DEIS pg. 3-45).

The DEIS does not define the “urban interface” and doesn’t even show it on a map.

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Response to Comment #34: “For this analysis the urban interface includes National Forest lands within a mile of private property and the Yaak Highway (see Vicinity Map, M-1).” “The Garver project area includes areas considered in the National Fire Plan wildland/urban interface as ‘Intermix Communities.’ For the purpose of this analysis, this area will be referred to as the ‘wildland/urban interface.’” Please see DEIS pg. 3-30. “(The wildland/urban interface is defined in the National Fire Plan as: ‘The line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels.’) DEIS 2-10.

The “stand improvement” and “commercial thinning” prescriptions’ descriptions don’t disclose how they won’t result in highgrading the biggest trees. This could be accomplished rather simply by imposing diameter limits on logging, or by disclosing the range in sizes of trees, by species, now vs. post-project.

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Response to Comment #35: Pg. 2-7 in the DEIS defines silvicultural treatment terminology and summarizes the intent and basic criteria of proposed intermediate treatments. The treatment summary table in DEIS Appendix A and ROD Appendix 1 provides considerably more detail on what trees are planned to be cut or left and of what size. This table also described the overall treatment objectives. Detailed marking guides and silvicultural prescriptions are being developed to provide further direction in this regard. The stand improvement and commercial thinning prescriptions emphasize what is to be left on site with emphasis on reductions in the lower diameter classes and middle-aged trees. Reducing overall stand density, retaining healthy fire-adapted trees, with emphasis on leaving most large diameter trees is the cornerstone of the proposal. “Highgrading of the biggest trees” is not the intent as evidenced in the treatment summary (ROD Appendix 1) and marking guides (see Forest Vegetation section of the project file) and would not occur.

We don’t understand why the FS claims that the post-treatment thinned or “improved” forest would better mimic the natural range of historical stand structures, since the DEIS reveals that present conditions are not significantly different from historic conditions. The DEIS fails to disclose the natural range of historical conditions for the indicator species and TES species that inhabit the area. The only areas that are out of the natural range of variability are the previously logged areas.

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Response to Comment #36: The intent of the proposed actions are not to “mimic the natural range of historic stand structures” but to manage for conditions more suitable to a fire-dependent ecosystem while accomplishing other resource objectives. The focus of intermediate harvest treatments is on maintaining conditions where departures from reference conditions are not far off, but are considered very vulnerable to change. Stand improvement is also a focus where conditions have already trended towards that considered to be less resilient or less sustainable. It is important to maintain disturbance processes and ecosystem functions that we know created the more resilient past vegetative conditions. Not to create conditions that simply represent a previous point in time. The DEIS explicitly describes existing forest conditions and indicates where current trends have or are expected to depart from what is known of reference conditions. There is no general statement that implies current conditions are not significantly different from historic conditions.

Response to Comment #37: The Garver Landscape Assessment (page 4) discusses reference conditions for wildlife in the Garver area (Garver project file).

Letter #12 – The Ecology Center

The fact that all alternatives include road construction, whereas the FS doesn't have the budget to adequately maintain all the roads currently on the land in the project area, reveals the bias toward commercial logging in its Purpose and Need.

Whereas the FS claims that public safety is an important issue in terms of reducing fuels in the urban interface, it commits funding to timber sale preparation but fails to commit funding to such fuel treatment (2-10). Here again, it can be seen that where logging is not involved, the FS doesn't consider it worthy of commitment.

The DEIS implies that the density of trees in areas proposed for non-commercial thinning is not normal, but fails to discuss what the densities in these various forest types would be naturally, if the stand had been initiated by natural processes rather than clearcutting.

The DEIS fails to disclose how the coarse woody debris mitigations (2-13) would be met in logged or burned areas—that is, what specific actions will the FS take, and how will accomplishment be measured?

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Response to Comment #38: The No Action Alternative proposes no temporary road construction. The selected alternative reduces the amount of temporary road to 5 temporary roads that total .83 miles. No permanent roads will be constructed. These roads are needed to access log landings. These roads would be recontoured upon completion of activities and would require no further road maintenance. Approximately 50 miles of haul roads would be maintained or improved in the selected alternative.

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Response to Comment #39: While available funding varies from year-to-year, the Three Rivers RD is actively pursuing funding for the proposed fuels treatments through the National Fire Plan and Lincoln County Resource Advisory Committee. National direction for funding of fuels reduction projects is anticipated to be 70% for urban interface projects and 30% for wildland projects. With this change in national direction, money may become more readily available for projects such as the proposed fuels treatments in the Garver area.

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Response to Comment #40: The DEIS does not contain any statement that the density of trees in stands currently proposed for non-commercial thinning is not normal, as suggested in your comment. The DEIS does make reference to the subject stands being overstocked with trees. The basis for this judgment begins with objectives in the Forest Plan recommending that "...overstocked stands be thinned to a spacing appropriate to the habitat and Management Area prescription." The notion of stocking is an indication of growing-space occupancy relative to common indices of stocking such as trees per acre or basal area. While the Forest Plan objectives for thinning these stand has a primary purpose of enhancing tree growth and future timber yields, the Purpose and Need in the DEIS focuses on a more site-specific and ecologically-based purpose of improving growing conditions, maintaining species and structural diversity, reducing fuels, and improving forest health. It is also recognized that these managed stands can provide varied management options in the future as stand characteristics are maintained or enhanced to promote specific habitat or resource objectives. While there is much to be learned about how forested areas developed under natural conditions, it is understood that most stand structure owes its characteristics to some form of disturbance that reduces competition amongst trees. This is particularly important in young stands that develop after a fire or a regeneration harvest. Recent studies in some old growth forests in the Pacific Northwest show that the dominant trees grew rapidly in their first 50-80 years of life, gaining diameter and height where trees were widely spaced due largely to the influence of moderate to several natural disturbances, such as fires, major windstorms, and disease outbreaks (USDA, FS, PNW Res Sta, Science Update, 5/2002). Thinning in plantations or naturally regenerated young stands is very likely to accelerate the development of structural diversity and hence biological diversity. Management proposed in the DEIS is not trying to replicate natural forest conditions so much as maintaining the processes that lead to forest resiliency and sustainable conditions that offer options for future considerations.

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Response to Comment #41: As described in the DEIS on pg. 2-13, the proposed actions include specific design features and mitigation measures, including down woody debris requirements, to protect resources and to meet the purpose and need. The recommendations outlined to maintain specific levels of downed wood for wildlife and long-term soil productivity are embodied in detailed silvicultural prescriptions and prescribed burn plans which are the foundation for directing implementation efforts. In addition, the timber sale contract and its associate provisions provide the authorized means to describe and enforce the essential contractual requirements. In addition to the contract compliance inspections conducted by the sale administrator, fuel transects are generally done after logging to measure fuel loadings prior to subsequent fuels treatment and as a means to validate conditions where additional fuels treatment is not planned. In addition, field review of reserved snags and down wood is being conducted by the district wildlife biologist to gauge the level of success in meeting the original intent and to identify where in the implementation process, if any, do failures occur. The district continues to improve its efforts to monitor projects and evaluate the success of specific design features such as those addressed in this comment.

Letter #12 – The Ecology Center

The DEIS does not consider cumulative effects on upland habitat for boreal toads and leopard frogs. This does not make sense, since such small populations that are likely to remain are especially susceptible to fragmentation and extirpation due to isolation of smaller populations. See Maxell, 2000.

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Response to Comment #42: Please see DEIS pg. 3-63, Table 3-26. Sensitive Wildlife Species on the Kootenai National Forest. The Northern leopard frog has two population centers in western Montana, one near Kalispell and one near Eureka. The leopard frog has not been found in or near the Garver project area. Please see DEIS pg. 3-71, Boreal Toad analysis, and DEIS pg. 3-73, for the cumulative effects statement. According to Maxell (2000), boreal toad habitat is temporary ponds and wetlands in the mountainous regions of the state; permanent lakes and ponds in mountainous regions of the state; and riverine and riparian habitats in the mountainous regions of the state. Design features are included to “protect water quality” as displayed in ROD Appendix 2. The above-mentioned habitat for boreal toads would be protected by BMP’s, RHCA standards, and SMZ laws.

The DEIS does not indicate what criteria is being used to measure the success of the proposed “improving the quality of designated replacement old growth.”

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Response to Comment #43: See pg. 3-41 in the Garver DEIS “These management area changes would result in the designation of an older, more diverse stand structure into MA-13 than is presently represented; as well as the designation of areas that will be less accessible to firewood gathering. This will result in less potential impacts to the snag component, which is important for wildlife species that utilize old growth stands.”

The DEIS does not disclose the results of monitoring of previous burning projects that were to improve old growth conditions. Has the FS accomplished meeting old growth criteria after such burning in the past?

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Response to Comment #44: The burns implemented in old growth in stands on the Three Rivers Ranger District have been compatible with maintaining old growth characteristics. There has been some ecosystem improvement burning, and wildlife forage burns that have occurred in old growth. These have been light intensity burns, and the old growth attributes (ie. large old trees, snag, and the large log component) in these stands have remained essentially in the same condition as they were before the burning. (See the Old Growth section of the project file for monitoring documentation.). Note that these burns have the added benefit of a return to the historic fire frequency in a controlled setting, and have stimulated forage for wildlife. Ideally the old growth maintenance burns that we are planning for this project will burn with enough intensity to create some additional snags, and consume more of the unnatural accumulation of fuels. Monitoring will be conducted in these stands before and after implementation.

(P. 3-37) Does the FS consider that the barred owl, great grey owl, boreal redback vole, brown creeper and other old growth obligate species found in the KNF to be adequately “indicated” by the pileated woodpecker?

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Response to Comment #45: Yes, the FS considers the barred owl, great grey owl, boreal redback vole, and brown creeper to be adequately “indicated” by the pileated woodpecker. These species were identified in the Forest Plan FEIS process, (Appendix I of Appendix 17, Page A-17-2, paragraph 2), to be represented by the pileated woodpecker.

The DEIS fails to disclose the Forest Plan old growth Standards and monitoring requirements, and fails to demonstrate the FS’s consistency with them. The action alternatives’ logging of old growth habitat is not consistent with the Forest Plan nor NFMA viability requirements.

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Response to Comment #46: The DEIS includes discussion of the Forest Plan old growth standards and demonstrates the Forest Service’s consistency with them on DEIS pg. 3-38 as follows: “The Forest Plan, Appendix 17, specifies that no less than 10 percent of National Forest System (NFS) lands below 5,500 feet elevation be allocated to MA-13, or other non-base management area with old growth designation (such as MA-21/OG or MA-2/OG) and managed to provide an old growth forest condition (see DEIS Management Areas map for locations of these MAs in the project area and their relation to the proposed harvest activities). For the analysis area, the minimum allocation (10%) to MA-13 is acres. The analysis area contains 6,815 acres of MA 13 and other old growth MA allocations below 5,500 feet and 8,368 acres of effective old growth (designated and undesignated). (See FEIS Appendix M for old growth acreages in this area). KNF supplement 85 states that all available old growth present in a compartment shall be designated, and then if no other effective old growth is available, identify the best available soon-to-be future old growth to bring the total for the area to 10% (replacement old growth); OR designate additional old growth in an adjacent area to make up the difference. (See FEIS Appendix M for allocations of surplus old growth and replacement old growth to meet forest plan standards.)” Also note that modifications have also been incorporated into the selected alternative (Alternative D-Modified) that include dropping the proposed harvest in Unit 17, to avoid impacting stands with old growth attributes.

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The DEIS fails to discuss the significance of the spatial separation of the old growth blocks in the project area. The Forest Service has stated: “Well distributed habitat is the amount and location of required habitat which assure that individuals from demes, distributed throughout the population’s existing range, can interact. Habitat should be located so that genetic exchange among all demes is possible.” (Mealey, 1983.)

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The DEIS fails to demonstrate compliance with Forest Plan standards that require opening sizes to remain small unless the treatments can be shown to not cause any additional effect on wildlife.

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According to official FS policy, the FS “must develop conservation strategies for those sensitive species whose continued existence may be negatively affected by the forest plan or a proposed project.” FSM 2670.45. The FS never has. According to Forest Service experts, population viability analysis is not plausible or logical, from a scientific standpoint, at the project level such as the scale of a timber sale(s), absent some tiering to a larger-scaled study. Distributions of common wildlife species as well as species at risk encompass much larger areas than typical project areas (often referred to as “landscape scales”). The FS has failed to tier the viability analyses for Sensitive species impacted by the Garver project to a landscape analysis of Sensitive species viability that would allow for some assurances to the public that species viability is currently being insured in spite of continued habitat destruction and/or alteration.

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The KNF Forest Plan and accompanying EIS fail to provide a scientific basis for assuming that 10% old growth forest-wide is sufficient to maintain viable populations of old growth dependent species. Recent scientific studies and assessments (post-dating adoption of the Forest Plan) suggest that old growth species in the Northern Rockies ecosystems may actually require between 20% and 50% old growth habitat (See, for example, Lesica, 1996);

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There are approximately 58 species of wildlife on the KNF that rely or depend upon old growth habitat for their long term survival, representing cumulatively approximately 20% of all wildlife on the forest. Since adoption of the Forest Plan, significant questions and concerns have been raised over the continuing reliance by the FS on the pileated woodpecker as the sole Management Indicator Species for

Response to Comment #47: Spatial separation considerations are discussed in the KNF Forest Plan Old Growth Management Guidelines (appendix 17) and are incorporated into the decision process whenever determinations are made for the appropriate locations of old growth management areas. FEIS Appendix M contains a map which displays the distribution of old growth within the project area. These acres represent different habitat types. Across the forest, old growth habitat is also evenly distributed across various habitat types.

Response to Comment #48: Please refer to Page 3-49, Big Game analysis, where it states, “All of the created openings have been designed so that at any one point in the opening, cover will be within 600 feet in at least one direction. In many of the units, riparian buffers and topography provide cover and are not affected by the alternatives. Natural movement corridors (riparian and ridgeline) are maintained in all action alternatives.” Also, see Page 3-54, Grizzly Bear analysis, where the document discusses opening sizes. The document states, “The Garver project area includes timber sales that were harvested in the 1970’s and 1980’s. Some of these units were larger than 40 acres and are currently providing hiding cover. Design criteria of the project leaves riparian areas and ridgelines intact. The project has treatment areas identified that are larger than 40 acres but the actual harvest will be less than 40 acres. The units will include patches of live and dead trees and shrubs and the effect will be a mosaic of harvested area, non-harvested areas, and groups of standing dead and live trees. The topography of the area will also provide some cover due to the rolling/broken nature of the land.”

Response to Comment #49: Monitoring of species to develop population trends is a Forest-level issue and beyond the scope of this project. Monitoring of threatened, endangered, sensitive, and management indicator species is reported in the Annual Monitoring and Evaluation Report as required by the Forest Plan. The wildlife analysis documented in the EIS is a habitat-based analysis supported by scientific literature and professional judgment of the District Wildlife Biologist. The EIS (pp. 3-43 – 3-83) and the Biological Assessment indicate that the project will maintain adequate habitat within the analysis area. The Biological Evaluation is included in the EIS. As found by the 9th Circuit Court of Appeals, it is not “inconsistent with regulation for the Forest Service to strive to maintain viable populations of species by focusing on the critical habitat requirements of Sensitive, Threatened, and Endangered species within and without the Decision Area.” FSM2670.45 does not require the development of conservation strategies, but rather states that the Forest Supervisor is the responsible official to: “Develop quantifiable objectives for managing populations and/or habitat for sensitive species.” The Forest Plan establishes the objective “all sensitive vertebrate species of wildlife will have sufficient habitat to maintain viable population levels.” This objective is then measured through the Forest Plan Monitoring plan and implemented through the standards and guidelines throughout the plan. A conservation strategy for the lynx has been developed (Ruediger et.al. 2000). The species that are listed as sensitive and also listed as threatened or endangered under the Endangered Species Act have conservation strategies in the form of recovery plans.

Response to Comment #50: This project is in compliance with Forest Plan standards for old growth management (DEIS pgs. 3-42, FEIS Appendix M. The project record provides information that supports that 10% of the KNF land base below 5,500 feet in elevation is in an old-growth condition, providing habitat for those wildlife species dependent on old growth timber for their needs. Old growth is spread evenly through most major drainages and represents major forest types (PF Doc. 142). Yes, we agree that recent studies and assessments (post-dating adoption of the KNF Forest Plan) suggest that old-growth species in the Northern Rockies ecosystems may actually require between 20% and 50% old growth habitat (Lesica, 1996). However, Lesica points out that his results suggest that the “negative exponential models based on empirically determined estimates of fire interval can be used to obtain approximate estimates of pre-settlement old growth if local (emphasis added) fire history studies have been done.” None of Lesica’s history studies came from the KNF.

old growth and snag dependent species, including questions raised by the author of the 1979 study relied upon by the FS itself in so utilizing the pileated woodpecker. Yet in spite of the legal requirement that the FS must justify the selection of such species as indicators with good science, and in spite of the continuing legal obligations imposed by NFMA and NEPA, the FS refuses to adequately address these concerns, or address the science which has called into question their reliance on this approach to insure the viability of more traditional old growth dependent species, like the great gray owl, barred owl, fisher, and the northern goshawk.

At least as early as March of 1997, the FS recognized that “landbird monitoring results for the Northern Region showed pileated woodpeckers present to varying degrees in all vegetation types sampled except agricultural and residential,” and that pileateds “are relatively common in both uncut and cut mid-elevation conifer forests... The species appears to do well in a matrix of forest types...” (KNF Plan Monitoring Report FY 1996, p. 16.) Yet the KNF has never considered the need to monitor any other old growth dependent species whose population trends may not be accurately reflected by those of the more adaptable pileated.

Unlike the pileated woodpecker, other old growth species cannot be said to be present to varying degrees in all vegetation types, and have not been shown to do as well as the pileated in a matrix of forest types, both cut and uncut. Some species tend to be more dependent than the pileated on old growth forest, and the fact that they are more sensitive to habitat alterations and old growth removal is demonstrated by the fact that they have been listed as sensitive species in many forests across their range, while the pileated has not.

Proposed logging, roadbuilding and other disturbance associated with the Garver project could affect goshawk nesting, post-fledging family habitat, alternative nesting, foraging, competitors, prey and potential habitat, including areas far from cutting units. Research in the Kaibab National Forest found that goshawk populations decreased dramatically after partial logging, even when large buffers around nests were provided (Crocker-Bedford, 1990).

Research suggests that it is essential to viability of goshawks that 20-50% of old growth within their nesting areas be maintained (Suring et al. 1993, Reynolds et al. 1992). USDA (2000) recommends that forest opening greater than 50-60 acres be avoided in the vicinity of goshawks. A least five years of monitoring is necessary to allow for effective estimates of habitat quality (USDA 2000). Research suggests that a localized distribution of 50% old growth should be maintained to allow for viability of goshawks (Suring et al. 1993).

It is not clear from the DEIS whether goshawk viability is in fact being maintained or how goshawk viability is expected to be maintained into the future if this and

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Response to Comment #51: Yes, we agree that there are 58 species of wildlife on the KNF that rely on old-growth forests for part of their habitat needs for long-term survival.. Use of the pileated woodpecker as an indicator species for old growth is still valid. McClelland simply notes that other researchers (Landers et. al. 1988, Mellen et. al. 1992, Bull and Jackson 1995) have concerns. He does not say that using the pileated woodpecker is invalid. He does say (McClelland, 1997, p.852): “These foraging areas outside of old growth nest sites are not functional territories by themselves.” Furthermore, he supports the concept of using habitat (Ibid, p. 846): “A more realistic strategy would nurture western larch old growth, defined ecologically, as an indicator of high quality nesting habitat for pileated woodpeckers.” Good science was used to select the pileated woodpecker as an indicator species. The selection of the pileated woodpecker as the indicator species for old growth was based on the PhD research of B. Riley McClelland. McClelland (p. 273) concluded: “The pileated needs old growth forest to enable long term nesting success.” He also stated: “The pileated woodpecker can be thought of as such and indicator species, a key to the health of communities of hole-nesting birds in the northern Rocky Mountain areas in which it is a resident.” He further states (pp. 352-353): “It is, from a practical standpoint, impossible to implement a management program for every bird species, even though every species has slightly different habitat requirements.” Finally he concludes (p. 381): “The pileated woodpecker can be considered an indicator taxon, an indicator of ecosystem integrity.” McClelland also recognized that managing to meet the habitat needs of the pileated woodpecker would provide habitat for many other species (p. 355). The use of other indicator species such as the great gray or barred owl was considered (KNF Plan Appendix 17 – Appendix I). Five species were placed in the old growth group including the pileated woodpecker, barred owl, and great gray owl that you mention (Ibid, p. H-25). All three species had similar requirements for feeding and reproduction in mature and old growth habitats while barred and great gray owls also required grass-forb and/or brush-seedling habitats for feeding. These two species were not selected at the time of the plan because: 1) great gray owls are a rare species and monitoring would be very difficult and expensive and 2) barred owls were not considered native to the Forest. As with the pileated woodpecker, neither barred nor great gray owls are exclusively dependent on old growth habitats. Great gray owls are very rare even under the best habitat conditions and also require open meadows in conjunction with old growth. Barred owls have been found in a variety of habitat conditions generally in old growth habitats with a deciduous tree component. The pileated woodpecker on the other hand is fairly well represented in all old growth habitat types. The Kootenai (Forest Plan Volume 2, Appendix 12, page 1) recognizes that selecting indicator species is difficult. Identifying indicator species for a variety of old growth habitat types from very dry ponderosa pine to moist hemlock/cedar/white pine is extremely difficult. The Kootenai National Forest is in the process of revising the Forest Plan. New science and updated information will be used in the development process. The concept of indicator species will be evaluated thoroughly.

Response to Comment #52: Please see DEIS pgs. 3-69 - 3-71 for the goshawk analysis. The analysis includes a model run completed based on satellite imagery. The model designated 18,099 acres of potential goshawk nesting and foraging habitat within the Garver project area (42% of project area). Designated old growth in the Garver project area will not be harvested, thus we will not be affecting the recommended maintenance levels of 20-50% old growth in nesting areas. In USDA (2000), Reynolds and Boyce recommended creating irregular shaped patches of different sizes and age classes across the landscape. Boyce clarified that within stand conditions would be better if uneven aged. Boyce also recommended against managing for large (50-60 acres) stands of any single age class versus “recommends that forest opening greater than 50-60 acres be avoided in the vicinity of goshawks” as stated in your comment. We will be conducting pre-harvest surveys in the Garver project to insure that goshawk nests and post fledgling areas are treated as recommended in scientific studies. If nests are found in the surveys, we will address the issue contractually. The research mentioned in your comment that “suggests that a localized distribution of 50% old growth should be maintained to allow for viability of goshawks” is recommended for defined Habitat Conservation Areas (HCA’s). These HCA areas are specific to the Tongass National Forest in Southeast Alaska. The referenced comment actually reads, “The Interagency Viable Population Committee (this publication) defined HCA’s as needing at least 50% old-growth forest of over 8 mbf/ac.” This

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other cumulative actions proceed. The FS has not incorporated up-to-date quantitative science into this analysis and has therefore not demonstrated that it is maintaining goshawk viability.

As discussed above, the FS does not provide sufficient old growth habitat or a diversity of plant and animal communities as it is required by law and the forest plan.

For example, Reynolds et al. 1992 calls for protecting nest areas around 3 nests and 3 alternative nests against adverse impacts in each home range. They call for ratios of (20%/20%/20%) each in the mid-aged forest, mature forest, and old forest Vegetative Structural Stage (VSS) classes in the post-fledging family areas (PFAs) and foraging areas (Id., p7). However, the DEIS does not document what the VSS levels are in the project area or even approximate these figures. Reynolds et al. 1992 calls for 100% in VSS classes 5 & 6 and 0% in VSS classes 1-4 in nest areas (Id.).

In addition, Reynolds et al. 1992 calls for FS-created openings of no more than 1, 2 or 4 acres in size or less in the PFAs, depending on forest type, and agency-created opening of no more than 1, 2, or 4 acres or less in size in the foraging areas, depending on forest type, but the FS does not disclose whether any such agency-created openings exist in the foraging areas and PFAs or why any more should be created (Id.).

Even if the FS has not adapted the Reynolds et. al. 1992 recommendations, it has not disclosed what other scientifically credible goshawk management protocols it is using in their place to protect the Sensitive northern goshawk. And it has not incorporated up-to-date, quantitative science or inventories into this analysis.

The DEIS does not disclose the dbh classes or other components listed in Reynolds et al. 1992. A big problem with relying on database-derived habitat suitability models or TSMRS is that such data is not reliable. The IPNF has admitted that the use of database habitat information is suspect: "Habitat modeling based on the timber stand database has its limitations: the data are, on average, 15 years old; canopy closure estimates are inaccurate; and data do not exist for the abundance or distribution of snags or down woody material..." (Idaho Panhandle National Forests 1998 Forest Plan Monitoring and Evaluation Report).

The FS has not analyzed whether inadequate habitat conditions for the goshawk exist in this area or whether additional mitigation measures are required to maintain the viability of the goshawk. The degree to which the approved activities would open up the forest and further impact the goshawk is also therefore not considered.

statement is specific to "A Conservation Strategy For The Queen Charlotte Goshawk on the Tongass National Forest" and is not applicable to the Kootenai NF. The northern goshawk is represented by the Management Indicator Species for old growth, the pileated woodpecker. Please see Page 3-77 for the discussion of Cavity Habitat and Pileated Woodpeckers. Population trends require many years of data before any conclusions can be reached. No definitive conclusions on population trends (upward or downward) have been established for pileated woodpeckers (Young, 2003). The current available data (Landbird and Breeding Bird Surveys) shows a likelihood of stable populations of pileated woodpeckers and northern goshawks. Data on the great gray and barred owls in Montana is insufficient at this time to do a trend analysis. Although species like the great gray owl and northern goshawk use different parts of old growth (e.g. goshawks nest on branches vs. pileated builds cavities or great gray owl use areas with different canopy closures than pileateds), the management strategy on the Kootenai provides for all these structural differences with a goal for the old growth to be well distributed and "in units that represent the major habitat types and tree species of each drainage" (Forest Plan Appendix 17). The different habitat types will have different canopy closures, trees species, etc. that will provide the needed habitat for each species.

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Response to Comment #53: Existing conditions for goshawk are identified, recognizing that for managed forests the most important aspect of goshawk habitat management is the maintenance and protection of potential nesting habitat. The approach for determining effects was to compare the stand characteristics of proposed treatment units and compare them with known or currently understood nesting habitat forest structure and the amount of nesting habitat that would be changed into foraging habitat. The direct, indirect, and cumulative effects to goshawk habitat are identified. The selected alternative would treat stands that are closer in stand characteristics to foraging than nesting habitat, and the treated stands would provide suitable habitat in terms of prey vulnerability. The analysis indicated that the project is not likely to cause the northern goshawk population to decline or trend toward federal listing (DEIS pg. 3-76). Reynolds, et al, 1992, is a General Technical Report published by the Rocky Mountain Forest and Range Experiment Station. The document is called "Management Recommendations for the Northern Goshawk in the Southwestern United States". The habitat types in the southwest are very different from the habitat types we have in northwestern Montana. The Kootenai National Forest developed a computer model based on our habitat types for use as an analysis tool. This model is much more appropriate for application to our area. It is important to note that vegetation classification from satellite imagery provides a landscape approach to habitat modeling. Habitat maps produced from satellite cover types identify areas where we would expect to locate or manage for modeled species. Cover type, structure class and size class were identified using the Kootenai classification (Tanimoto, 1996). The Regional cover type classification was included to provide refinement of habitat attributes. The northern goshawk model information is located in the Garver project file.

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Response to Comment #54: The overwhelming majority of TSMRS information used was collected during a comprehensive 1996 inventory. This inventory met the required stand exam and measurement standards at a confidence level insuring the data's reliability, uniformity, and data integrity. We cannot address the reliability of data collected on the IPNF.

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Response to Comment #55: Please see DEIS pg. 3-70, Goshawk Affected Environment, where it states, "The KNF has developed a model for the northern goshawk, which runs on current computer software and uses latest research available to define nesting and foraging habitat. This model predicted approximately 18,099 acres (42% of the project area) of potential habitat within the project area. This potential habitat is found throughout the project area. Habitat for northern goshawk is available and well distributed across the Kootenai National Forest." Maps of northern goshawk modeled habitat are located in the Garver project file.

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And the DEIS provides no detailed analysis of cumulative effects on the goshawk, including impacts related to non-FS lands and other lands within goshawk range.

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Goshawks are often associated with a thick overstory cover and areas with a large number of large trees. For example, Hayward and Escano (cited in Warren, 1990) recommend an overstory canopy between 75 and 80%. And according to the BE/BA for the Keystone Quartz EIS:

Goshawks prefer vegetation structure that permits them to approach prey unseen and to use their flight maneuverability to advantage (Widen, 1989, Beier and Drennan 1997). ... In northern Arizona ponderosa pine and mixed conifer forests, Beier and Drennan (1997) found that goshawks did not select foraging sites based on prey abundance; abundance of some prey were lower on used than contrast plots. Goshawks selected foraging sites that had higher canopy closure, greater tree density, and greater density of trees >16"DBH than on contrast plots. However, for all parameters sampled, the range of sites used by goshawks was impressively broad, and comparable to the range found in contrast plots." (Keystone Quartz FEIS B1-22, Beaverhead Deerlodge NF.)

The issue of fragmentation should have been more thoroughly considered with respect to goshawks. Other edge-adapted species may compete with the goshawk and displace the goshawk if adequate amounts of forest interior habitat is not provided. Crocker-Bedford (1990) recommends that a foraging area of >5000 acres of dense forest, in which no logging is permitted, be designated for goshawks, with additional areas of 2500-5000 acres of more marginal habitat designated beyond this 5,000 acre foraging area.

←57a

The issue of noxious weeds is another the FS wants to mostly avoid, preferring to act largely in disregard until infestations require expensive, marginally effective, and hazardous herbicide treatments. Given the present management regime in the area (assuming present levels of staffing and funding), what will be the likely noxious weed scenario in the project area in five years? In ten years? In 20 years? In 50 years? The FS simply does not have enough monitoring of its noxious weed treatment strategies to assume anything but out-of-control weed populations over the long term.

←58

The DEIS does not adequately discuss the adverse cumulative effects of herbicide treatments on water quality, sensitive plants, or anything else for that matter.

←59

The DEIS takes the existing, current conditions of habitat for most wildlife species as the baseline condition, and fails to disclose the impacts of past management

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Response to Comment #56: Private lands within the Garver Project Area are a minor component of the area and are situated on the periphery along the Yaak River and the Yaak Highway (see DEIS Map M-1). The cumulative effects analysis for the goshawk is discussed on DEIS pg. 3-71 and describes the activities pertinent to the analysis. Maps of northern goshawk modeled habitat are located in the Garver project file.

Response to Comment #57, 57a: See response to Letter #12, Comment #55.

Response to Comment #58: Forest and District guidelines for noxious weed management have not been in place for very long. Detailed monitoring of the type of mitigations prescribed in the document has not been completed to display effectiveness. However, treatments of tansy ragwort on the east side of the Forest have shown this type of treatment (gridding the area with spray crews, treating weeds as they are found) to be very effective (FY 2001 FP Monitoring Report). Montana Department of State Lands manages a section adjacent to a private section within the tansy-infested area. Tansy ragwort is nearly absent from the state section, while being rather abundant in the private section.

Response to Comment #59: Potential impacts of herbicide were considered in the Kootenai National Forest Herbicide Use EA signed in 1997. The cumulative effects of herbicide use on water quality is discussed on DEIS pg. 3-135, and for PTES plants on DEIS pg. 3-102, with design features to protect plant populations on DEIS pg. 2-13.

Response to Comment #60: The Affected Environment section for each species incorporates past management actions by describing the existing conditions. Please see Wildlife Habitat, DEIS pgs. 3-43 thru 3-83 for all Affected Environment discussions.

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actions on amount of available habitat, population trends, habitat connectivity, interior forest, etc.

The DEIS states that the alternatives would affect winter access, but illogically concludes that not affect habitat or trapping pressure on the fisher and other vulnerable species.

The DEIS is extremely vague as to how the FS “modeled” wolverine and other wildlife species’ habitats. It also does not disclose whether or not the various wildlife models have been validated, and if they have how this has been accomplished, thus rendering the use of these models into strong scientific doubt.

The FS has never disclosed the population level of snag-dependent species corresponding to the “percent population capacity” (3-77). Also, the FS has never cited any science that shows this “percent population capacity” will result in even maintaining minimum populations on the KNF, as NFMA requires. Bull, et al. (1997), discuss the scientific limitations of the Thomas (1979) model which is the basis of the KNF’s snag “percent population capacity” management strategy.

Bull et al., 1997 point out that “Hollow trees with broken tops are used by black bears for den sites” (p. 9). Also, “Retaining all hollow trees in managed landscapes can be justified in most areas because these trees are uncommon, occur on less than 3 percent of the landscape, have little commercial value, and have great wildlife value” (p. 10). The DEIS does not consider the impacts of logging on this important habitat need for black bears.

Bull, et al., 1997 conclude:

This document presents new information on the retention and selection of trees and logs most valuable to wildlife.

...Current direction for providing wildlife habitat on public forest lands does not reflect this new information. Since the publication of Thomas and others (1979), new research suggests that to fully meet the needs of wildlife, additional snags and habitat are required for foraging, denning, nesting, and roosting. Although we do not suggest specific numbers or snags to retain by forest type, tow recent studies indicate that viable woodpecker populations occurred in areas with about four snags per acre.

We suggest that the next step in snag management should involve creating a model that incorporates the new information on woodpecker foraging substrates (live trees, snags, and logs), home range sizes, number and characteristics of roost trees, multiple occupancy of snags,

Response to Comment #61: Please see DEIS pg. 3-62, paragraph 1; 3-65, paragraph 2; and 3-67, paragraph 3, for discussions on winter access for lynx, fisher, and wolverine. The action alternatives would affect winter access due to the fact that winter logging will occur. Please see ROD Appendix 4, Garver Access Management Plan, where access is displayed. Many of the roads involved in activities will be closed to public access for the duration of the activity. Trapping pressure is not anticipated to increase based on the fact that when an area has activity, most trappers avoid that area to due to the human disturbance. According to Montana Department of Fish, Wildlife and Parks, Area Biologist, Jerry Brown, the Three Rivers Ranger District has one main trapper that traps in the Yaak River area (see Wildlife section of the project file). Other trappers in the area are considered “hobby trappers” and do not depend on trapping for a living. Cumulatively, the winter access for winter harvest is not anticipated to create an influx of trapping in the area based on the above discussion.

Response to Comment #62: Please see DEIS pg. 3-43, where it states the origin of the data used in the Wildlife Habitat section. Please see DEIS pg. 3-64, Fisher analysis, paragraph 4, for a description of the model used for fisher. Please see DEIS pg. 3-65, Wolverine analysis, paragraph 6 and 3-66, paragraph 4, for a description of the methods/models used for wolverine analysis. Please see DEIS pg. 3-68, Black-backed woodpecker analysis, paragraph 5, for a description of the model used for Black-backed woodpecker. Please see DEIS pg. 3-70, Goshawk analysis, paragraph 3, for a description of the model used for goshawk. Please see DEIS pg. 3-75, Flammulated owl analysis, paragraph 4 for a description of the model used for Flammulated owl. Model information is filed in the project file.

Response to Comment #63: Bull, et al. (1997), states, “If management agencies have an objective to manage for viable populations of woodpeckers, providing numbers of snags that have been shown to support viable populations in the recent studies would be prudent.” The Garver project does exactly that by incorporating the guidelines developed in the Northern Region Snag Management Protocol (2000). Bull, et al. (1997), was used as a reference for the Snag Management Protocol. Please see DEIS pg. 3-78, where the description of the Northern Snag Management Protocol was discussed. Also, see DEIS pg. 3-79 paragraph 4, where recommendations are made for the Garver project area. Please see DEIS pg. 3-78, Cavity Habitat and Pileated Woodpeckers section, for the information used along with the Forest Plan direction.

Response to Comment #64: Please see DEIS pg. 3-79, paragraph 4, for the discussion of retention of snags. Following the recommendations of the Northern Region Snag Management Protocol (2000), 4-12 snags per acre, or their replacement, will be left in regeneration units where available, including trees that exhibit signs of functional wildlife use.

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and needs for other habitat structures. Once this information is incorporated, the model may suggest changes to guidelines that specify numbers of snags and other habitat features by forest type and geographic area. Additional information on fall rates of snags, foraging needs of black-backed and three-toed woodpeckers, relation of the density of woodpeckers to that of secondary cavity nesters, and relation of snag density to woodpecker density would greatly improve the model.

Pileated woodpeckers prefer larger trees/snags for nesting, not recognized by the DEIS. Also, Warren, 1990 states, “To provide suitable pileated woodpecker habitat, strips should be at least 300 feet in width...” The DEIS also ignores many structural habitat components necessary for the pileated woodpecker. Warren, 1990 indicates that measurements of the following variables are necessary to determine quality and suitability of pileated woodpecker habitat:

- Canopy cover in nesting stands
- Canopy cover in feeding stands
- Number of potential nesting trees >20” dbh per acre
- Number of potential nesting trees >30” dbh per acre
- Average DBH of potential nest trees larger than 20” dbh
- Number of potential feeding sites per acre
- Average diameter of potential feeding sites

The preferred diameter of nesting trees for the pileated woodpecker recognized by Warren, 1990 is notable. McClelland and McClelland (1999) found similar results in their study in northwest Montana, with the average nest tree being 73 cm. (almost 29”) dbh. The pileated woodpecker’s strong preference for trees of rather large diameter is not considered by the DEIS.

The Idaho Panhandle National Forests’ Forest Plan provides an example of better management directives for the pileated woodpecker. Wildlife Standard #10f requires “One or more old-growth stands per old-growth unit should be 300 acres or larger. Preference should be given to a contiguous stand; however, the stand may be subdivided into stands of 100 acres or larger if stands are within one mile. The remaining old-growth management stands should be at least 25 acres in size. Preferred size is 80 plus acres.” IPNF Forest Plan at II-29. This and other IPNF old growth Standards are based upon what the IPNF recognizes are pileated woodpecker habitat needs:

To retain a viable population of pileated woodpeckers on the IPNF ... our recommendations are:

1. Retain 10 percent old-growth throughout the Forests.
2. Distribute the old-growth so that old-growth compartments with 5

Response to Comment #65: On the contrary, the DEIS does recognize that pileated woodpeckers prefer larger trees/snags for nesting. Please see DEIS pg. 3-77, Cavity Habitat and Pileated Woodpeckers, where it states, “For nesting, they prefer ponderosa pine, Douglas-fir and western larch on old mature stands that are at least 20 inches DBH and at least 60 feet tall. Pileated woodpeckers will forage in most forested sites. They feed on large snags or trees with decay and moist rotting tree butts, especially where carpenter ants are present. Down woody debris and high stumps are important feeding sites where harvest management has taken place. Pileated woodpeckers will use shelterwood and small group selection cut areas, and will fly through open areas, but avoid them for longer feeding, perching and nesting. They tend to move to lower elevations in the winter, and feed on smaller diameter snags if larger trees are not available or if snow depths cover old stumps and down logs.” In Warren, 1990, the quote used in the comment refers to spatial arrangements of habitat. Please see DEIS pg. 3-49, paragraph 1 and DEIS pg. 3-54, Opening sizes, for the discussion of using a 600 foot to cover design for the harvest units. The habitat blocks needed by the pileated woodpecker, as stated in Warren, 1990, “Nesting pairs of pileated woodpeckers in the northern Rockies often cover 500-1000 acres in the daily feeding activities. In high-quality habitat in the northern Rockies, densities of 1 pair per 500 acres are not uncommon.” There are currently 6,815 acres of designated old growth and 2,710 acres of undesignated effective old growth on federal land being maintained for species that utilize old growth habitat, for example, the pileated woodpecker, within the Garver analysis area.

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percent old-growth retain at least 5 percent old-growth. All old-growth stands 25 acres should be retained in old-growth compartments containing less than 5 percent old-growth.

3. In each 10,000 acre unit at least 300 acres should be managed specifically for pileated woodpeckers. To maximize benefits to other species as well as pileateds the 300 acres should be either contiguous or divided into subunits no smaller than 100 acres. The subunits should be within approximately two square miles.
4. The areas managed for pileated woodpeckers should be at least 200 yards wide.
5. Areas selected for old-growth management for pileated woodpeckers should also be close to water. Old-growth larch stands are highly recommended for pileated woodpecker management.

(IPNF Forest Plan EIS Appendix 27 at p. II-40.)

Since the DEIS provides inadequate analysis regarding the size and quality of habitat blocks needed by the pileated woodpecker, the analysis completely fails to disclose the quantitative or qualitative significance of cumulative effects due to past logging in the area.

←66

The DEIS fails to adequately disclose the cumulative impacts of the ever-increasing motorized recreational use on wildlife species. Other cumulative effects not adequately considered include the effects of drastic habitat alterations north of the Canadian border.

←67

The DEIS admits that the action alternatives would reduce population numbers of sensitive fish species, yet fails to disclose minimum viable population numbers, nor how the populations must be distributed to maintain the connectivity necessary for viability.

←68

The DEIS at 2-12 suggests that trees other than “live” ones might be logged in RHCAs. How is this consistent with the Forest Plan? Why does the FS consider that running heavy machinery through water courses and inside riparian areas is consistent with the Forest Plan?

←69

Response to Comment #66: Snag levels within the project area are relatively high. TSMRS data base information from the past 10 years reveals snags at a level of 6-11 trees per acre with DBHs ranging from 17-21 for these trees in the analysis area. Mature to old growth stands generally have relatively high numbers of snags. Past harvest within the project area was concentrated in lower to mid elevations and did not stress the retention of snags to the degree of current practices. The portion of the landscape made up of the older harvested areas contains a limited number of standing snags capable of providing cavity habitat. DEIS Table 3-32 calculates potential snag habitat by VRU as measured through harvest history on federal land. Regeneration harvests are modeled as supplying no snags and intermediate harvests are modeled as supplying about 70% of potential snag habitat. These results demonstrate the abundance of snag habitat currently remaining within the Garver analysis area (70%). Based on the fact that 70% of 42,722 acres equals 29,905 acres, there are 30 – 60 potential pileated woodpecker territories available in the project area.

Response to Comment #67: Please see DEIS pg. 3-149 thru 3-151, Recreation analysis, for the discussion of recreational use in the project area. As stated, the area provides many activities for the outdoor enthusiast, hunting, fishing, horseback riding, viewing wildlife and nature, and cross country skiing, snowmobiling, gathering forest products, and camping. Cumulatively, based on the Grizzly Bear analysis, DEIS pg. 3-50 thru 3-57, the amount of area for motorized recreational use has decreased significantly in the past several years. Please see the response to Letter #12, Comments 24-28. This fact is due to road closures for habitat effectiveness and core. The alterations north of the Canadian border are beyond the scope of the wildlife analysis (see analysis areas section of the DEIS Chapter 3 Wildlife analysis).

Response to Comment #68: All action alternatives are consistent with INFS and would limit adverse effects to native fish populations by protecting habitat. Any impacts would be short-term and minor. Considering the range of habitat occupied by sensitive species in the project area, connectivity of habitat, and genetic purity of those fish, it is expected that fish populations within the project area would not be adversely impacted due to the design of the project. The DEIS states that the Garver project activities may impact individuals and habitat but would not likely contribute to a trend towards federal listing or cause a loss of viability to the population for species.

Response to Comment #69: The Garver Project proposes implementing default INFS RHCAs with no harvest within those RHCAs. As stated on DEIS pgs. 2-12 “No timber harvest would occur in RHCAs designated along streams or wetlands. If springs or small streams are found within cutting units during layout, RHCA widths would be implemented, and all dead and live trees within the RHCA would be retained.” The DEIS states that equipment may cross RHCAs at designated locations in units 5, 24, 32b and 34 if suitable sites can be found that adequately protect water and soil resources. Units 24 and 32b have been dropped from the project. The stream crossing to access portions of unit 5 was designated by the District Hydrologist and is located in an area where the intermittent stream lacks a defined channel as the flow is subsurface and is of very low gradient which would limit impacts to the stream channel. Unit 34 is a helicopter harvest unit and the machinery in the unit will be limited to excavator piling of slash. The RHCA in unit 34 is an intermittent stream with areas of subsurface flow and low gradient.

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How can the EIS assure consistency with the Forest Plan if the DEIS doesn't even compare present conditions with Riparian Management Objectives?

←70

Response to Comment #70: Riparian Management Objectives are described in detail in the Inland Native Fish Strategy Environmental Assessment (USDA 1995). The proposed action would implement default RHCAs as appropriate. Based on the negligible level of effects to aquatic habitat and the protection afforded by default RHCAs, it is appropriate to conclude the proposed action would not retard the attainment of RMOs.

The DEIS is extremely deficient in its description of aquatic habitat conditions, stream conditions, and water quality/ aquatic habitat trends in project area watersheds. The DEIS notes that projects have been ongoing yet only cites old data.

←71

Response to Comment #71: As stated on page 3-86 of the Garver DEIS, several data sources were used for the fisheries analysis ranging in years from 1978 to 2002. Given the nature and intensity of the proposed action, risk to aquatic resources was determined to be very low as discussed in the Fisheries and Water Resources sections of the DEIS. These two sections combined, describe the physical and biotic components of the proposed action. The stream channel and water quality conditions in this area are at low risk of being affected by this project as discussed in the water quality effects analysis. The watershed conditions are discussed on DEIS pgs. 3-125:129. The District hydrologist spent several weeks field-verifying watershed and stream conditions in areas adjacent and downstream of proposed project activities in order to verify the sensitivity and condition of the streams. This information is in the project file (Newgard field notes, Nov 01-Oct 02).

The DEIS fails to adequately compare baseline, pre-development watershed conditions and fish population numbers with current and foreseeable watershed conditions and fish population numbers.

←72

Response to Comment #72: Based on fish population data collected by Montana Fish Wildlife and Parks (MFWP) and posted on their MRIS website, we know fish densities in the Yaak River range from 60 – 200 fish/1000 feet of stream depending on the year. Numbers for the West Fork Yaak range from 24 – 48 fish/1000 feet. French Creek also supports pure strain westslope cutthroat trout in low abundance. MFWP fish stocking records show that non-native species have been released into the Yaak system. However the remaining pure strain fish in the West Fork are isolated above waterfalls and should continue to be unaffected by inter-specific competition. The level of effects attributable to the project would not affect these fish. Fish populations in the mainstem Yaak would continue to be exposed to inter-specific competition but that would not be exacerbated by effects of the project. No measurable change in fish densities would be expected as a result of the project. Probable existing departures from natural conditions are discussed on DEIS pgs. 3:122-129. Watershed conditions are gradually improving as old harvest units recover and roads stabilize. The level of activity being proposed by this project would not adversely affect the current watershed conditions, and recovery would continue to occur.

The FS doesn't recognize any limits on water yield, sediment, or any risk factor and fails to interpret the meaning of the indices it does choose, in term of the significance of cumulative effects.

←73

Response to Comment #73: The indices used for this analysis are listed on DEIS pg. 3-124, are described on DEIS pgs. 3-122 and 3-123, and analyzed with respect to project related effects on DEIS pgs. 3-131:135. Cumulative effects with respect to these indices are discussed on DEIS pg. 3-135.

The “water yield analysis areas” boundaries on map M-12 don't make any sense.

←74

Response to Comment #74: The water yield analysis areas shown on Map 12 are the watersheds that have a concentration of proposed harvest activities and where effects from activities are possible. Possible water yield effects to the next larger watersheds, the West Fork Yaak and the main Yaak, were considered in the analysis and it was found that there would no detectable effects at the scale of these watersheds. See also Letter #2, Comment #7.

The DEIS fails to cite the results of any monitoring that validates assumptions inherent in its use of certain threshold values of water yield increases.

←75

Response to Comment #75: Simple thresholds do not apply because of the complexity of factors. The indicators for potential effects on streamflow include ECA, channel condition, natural watershed sensitivity and the interaction of roads and skid trails. Small watersheds would show effects of activities before larger watersheds. The design focuses on avoiding measurable adverse effects in the smaller watersheds, so that there would be no cumulative effects in the larger watersheds. See discussion on DEIS pgs. 3-122:123. For example, West Fork Tributary #2, has geographic features, a harvest history, and a road density that make it more sensitive to management. For that reason treatments were deferred or modified to lower the ECA increase, and road drainage work is planned to decrease water routing.

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The DEIS fails to analyze cumulative effects at the appropriate watershed level, including the West Fork Yaak River and the Yaak River as an integrated entity.

←76

Response to Comment #76: Cumulative watershed effects are discussed on DEIS pg. 3-135. Also see Letter #2, Comment #7.

The DEIS fails to disclose that the water quality and fisheries monitoring, as required under the Forest Plan, has not been adequately undertaken.

←77

Response to Comment #77: Forest Plan monitoring is ongoing and reported annually in the Kootenai National Forest Plan monitoring report.

The DEIS admits that the high levels of logging and road impacts are a continuing “press” on watershed conditions and fish population numbers. In the absence of adequate monitoring information, it then assumes that conditions are on a significant trend toward improvement. Surely, forest canopy re-growth decreases water yields and this is good for stream channel stability. However, the DEIS fails to disclose the length of time it takes for the effects of the “shock waves” of previous management—manifest in destabilized streams, aggraded channels, and high levels of unnatural sediment buildups—to heal so that fish populations are healthy and streams are resilient. The DEIS’s assumptions (improving aquatic trends = watersheds able to handle more logging stress) are simply not based on any reliable data.

←78

Response to Comment #78: The Water Resources analysis states that the existing stream channels are stable enough to withstand the small peak flow increases that may result from the project. Current stream channel conditions would be maintained and beneficial uses would be protected (DEIS pg. 3-131:136). The effect analysis shows that there is a low risk of adversely affecting channel conditions under Alternative D-Modified. See also Letter #2, Comment #7.

In reading the analysis of Alternative A (3-94) it can be seen that the FS assumes that roads will fail, and the only way to prevent them from doing so is using timber receipts to prevent this from happening. The DEIS doesn’t tell us, however, which segments of roads in the project area watersheds will NOT get maintenance and upgrading necessary to prevent those segments from continuing to be adverse impacts or high risk of sudden failure. Clear, detailed disclosures and discussions of such factors, unfortunately lacking in the DEIS, are necessary for a clear understanding of the situation here.

←79

Response to Comment #79: Roads that would be improved or maintained as a result of the Garver project are the haul roads as shown on the map at DEIS Appendix M-13 and the map at ROD Appendix 1-18. Other roads will be maintained according to the District’s road maintenance schedule. Effects of road maintenance are discussed on DEIS pg. 3-130. Cumulative effects on sediment delivery are discussed on DEIS pg. 3-135.

The DEIS does not discuss the economic and ecological impacts of long-term, routine, necessary road maintenance. The language of the DEIS illogically assumes that the maintenance funded by logging alternatives will forever prevent significant damage to the watersheds.

←80

Response to Comment #80: The ongoing effects of road maintenance on water quality are discussed on DEIS pg. 3-130. The effects of roads on water quality are declining as road cut and fillslopes revegetate, and BMP work is implemented. BMP work is funded from numerous sources, and is an on-going part of the road maintenance program. The district does not track road maintenance costs or funding by watershed.

Please disclose the amount of money needed to adequately meet all road maintenance needs, the amount of money used for road maintenance annually in each project area watershed over recent years, and in regards to the latter distinguish between how much was funded by timber receipts vs. how much was funded by funds in line items besides timber.

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The DEIS states the slopes where roads would be built are “moderate” but that should be displayed using properly scaled maps that show contour lines.

←81

Response to Comment #81: Sideslopes where the five temporary roads would be built are less than 30%. There are no stream crossings. These roads are not located in RHCAs and not located within 300 feet of a stream. The risk of sediment delivery from these roads is low. Maps showing temporary road locations with contour lines are in the project file. A table evaluating slopes and proximity to streams is also in the project file.

The DEIS does not adequately discuss the risk of rain-on-snow events, both in terms of elevation due to past logging/roading, and by alternative. Rain-on-snow during the winter and spring months has been found to be the dominant mechanism causing peak flows in this region (MacDonald and Hoffman, 1995). The DEIS discloses that the models commonly used do not consider the impacts of such infrequent but likely events, but fails to substitute any analysis that does.

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Response to Comment #82: Rain-on-snow (ROS) events are a moderate influence in the Garver project area. ROS can generate peak flows that influence channel characteristics in both harvested and unharvested watersheds. Timber harvest and wildfire can increase the frequency or magnitude of events. ROS events are influenced by many factors. However, just like normal runoff, the risk of increased damage due to ROS increases with increasing ECA. The ECA increase by watershed that would be generated by this project is small and the conclusions on effects on pages 3-131:133 still apply. The risk of effects as shown on DEIS Table 3-44 remains the same. See also Letter #2, Comment #7.

The DEIS fails to link the current and cumulative soil disturbance across thousands of acres in the project area watersheds to the impacts on water quantity and quality.

←83

Response to Comment #83: Activities that result in soil compaction also reduce infiltration. Although not specifically mentioned, the effect on infiltration was considered in the Water Resources part of the analysis. Impaired infiltration usually only occurs in areas with a high skid trail density. The effects of this reduced infiltration is expressed by water routing on skid trails, an indicator in the effects analysis. The percent of ground previously harvested (most of which was ground-based) was also considered (DEIS pg. 3-118). The harvest proposed for Garver would have much less affect on infiltration than previous harvest entries because no permanent new roads would be built, all excavated skid trails would be recontoured, approximately 39% of the acres would be helicopter yarded, and slash piling would be done with an excavator instead of a dozer. Cumulative soil impacts would slightly increase, with corresponding effects on infiltration, but this small increase would not affect water quality or beneficial uses (DEIS pg. 3-133:136).

The DEIS states that surveys for Sensitive plants would occur during the appropriate seasons. Please disclose the appropriate season for surveying each Sensitive plant that may occur in the road locations or treatment units, and for each of the units.

←84

Response to Comment #84: The potential timing for observations and the flowering period for species that generally require flowers and/or seeds for an accurate determination is as follows: *Botrychium ascendens* and *Botrychium monanum*, June thru November; *Carex paupercula*, flowering-May thru June, vegetative parts-May thru September; *Corydalis sempervirens*, flowering-July, vegetative parts-June thru August; *Heterocodon rariflorum*, flowering and vegetative-June thru July; *Lycopodium dendroidium*, May thru November; *Phegopteris connectilis*, July thru August. See the PTES section of the project file for more information.

The DEIS states that some Sensitive plant populations will be protected because the portion of the unit has been dropped, but fails to disclose the actual size of the buffers, and the effectiveness based upon monitoring of previously used buffers.

←85

Response to Comment #85: Because most sensitive plant species are expected to have a negative reaction to timber harvest activities, and since very little is known about the effect timber harvest may have on many sensitive plant species, we have been completely dropping any portion of proposed units where a sensitive plant population is known to occur. Not much is known about the effectiveness of buffers therefore we strive to completely avoid those areas that may impact any known populations. However three species that are suspected to occur in the Garver analysis area may be an exception, and may possibly actually benefit from some disturbance. These species are *Heterocodon rariflorum*, *Corydalis sempervirens*, and *Botrychium ascendens*. *Heterocodon rariflorum* appears to prefer some soil disturbance for seed germination, and large healthy populations have been observed in skid trails in areas that have been recently harvested. *Corydalis sempervirens* is also known from disturbed habitats, and is often found in areas that have been recently burned. *Botrychium ascendens* often appears on compacted roadside habitats. However, since little is known about these species, we presently plan to avoid any of these populations when they are discovered within any activity area, and will initiate monitoring of the populations. If monitoring of a population develops data that determines that some disturbance is needed for the population to persist, then we may develop a species specific plan to enhance the habitat with the appropriate disturbance regime during a project in the future.

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Please disclose the specific studies and specific monitoring information the FS relies upon in the DEIS’s assumption that the temporary roads will not result in increased sediment ending up in streams.

The DEIS uses the vague term, “minimize” to a large degree in downplaying adverse impacts. Every place that term is used the public needs the FS to re-interpret in clear, quantitative, meaningful terms.

The DEIS states that “20% of the acres proposed for harvest and burning” have had previous activities that affect soil productivity, however the FS has apparently not attempted to quantify these impacts in each proposed treatment unit, based on field surveys. This makes the data in Table 3-36 suspect.

The DEIS fails to disclose the boundaries of past activity areas (cutting units) within which the amount of detrimental soil impacts have been measured or estimated. The only way for there to be any meaning to the numerical standards in cases where logging is proposed over previously disturbed soils and where activity area boundaries are not kept constant is if a qualified soil scientist actually performs site-specific field measurements to measure the existing percentages of detrimental soil disturbance within the already-established boundaries of activity areas.

As indicated in FSM 2500-99-1 and FSH 2509.18, the FS assumes that maintaining soil productivity is achieved simply by limiting detrimental disturbance to no more than 15% of an activity area (cutting unit). Unfortunately, the scientific adequacy of the FS’s methodology for maintaining soil productivity on the KNF has never been demonstrated. The FS’s determination that it may permanently damage the soil on 15% of an activity area and still meet NMFA and planning regulations is arbitrary. Neither the DEIS nor the FSM 2500-99-1 cite any scientific basis for adopting 15% as the numerical limit.

Nowhere does the DEIS disclose the results of monitoring of soil productivity reductions due to past logging and road building in project area watersheds. There is simply no watershed level analysis of soil impacts. The DEIS assumption that the proper geographic bounds for soils analysis is the treatment units is not reasonable, and conveniently ignores the larger issue of soil productivity and watershed impacts. Thus, for example, there is a disconnect between the soil productivity impacts of the proposed temporary roads and the activity area standards.

←86

Response to Comment #86: There are two basic paths for sediment to reach a stream from a temporary road with no stream crossings or cross drainage structures. 1) Sediment can flow overland down to the nearest stream channel. A study that examined unchannelized sediment from fillslopes in granitic watersheds, which are highly erodible, found it moved less than 50 feet (Ketheson and Megahan, May 1996). Belt rock and ash cap soils, predominant in the project area, are generally less erodible than granitics. There are no channels within 300 feet of a proposed temporary road. There is virtually no risk of sediment being delivered overland from the proposed temporary roads. 2) Sediment can be carried along the temporary road surface to a downgrade connecting road surface or ditch. Engineering is aware of the need to provide cross drainage on the existing road in order to intercept potential sediment coming off the temporary road. This is a standard BMP. This need is specifically noted in the design features for this project and would be monitored (ROD Appendix 2).

←87

Response to Comment #87: The term “minimize” is used because it is recognized that 100% compliance or prevention may not be a realistic expectation. The conclusion of the analysis is that the expected “real-world” level of compliance and effectiveness would still protect resources as defined by law and regulation.

←88

Response to Comment #88: Units 33, 34 and 35 will be closely monitored to determine type, origin and extent of soil impacts. The column showing percent existing disturbance in DEIS Table 3-36 is based on ground verification of each unit. A spreadsheet documenting the previous disturbance by unit is in the project file.

←89

Response to Comment #89: The Forest Soil Scientist visited units with the project hydrologist to review existing detrimental disturbance (see L.Kuennen Garver unit notes in project file). The project analysis uses “activity area” as defined by Regional guidelines (FSM 2500-99-1, November 12, 1999). Unit 31 has the highest intensity and extent of previous disturbance of all the proposed units for the Garver project. This unit was reviewed by the Forest Soil Scientist and determined to have an existing disturbance rate of 4-6%. Most of the previous detrimental disturbance in the proposed units was caused by skid trails used for selective harvest. No existing disturbance approaches the 15% regional guidelines. In most cases only a small portion of the proposed unit was previously disturbed. This record of each unit is documented in the project file.

←90

Response to Comment #90: A discussion of the adequacy of FSM 2500-99-1 and FSH 2509.18 is beyond the scope of this analysis.

←91

Response to Comment #91: The analysis uses the activity areas for analysis of soil productivity impacts. This is appropriate because changes in soil productivity do not result in measurable off-site impacts to soil and water resources. One cause of soil productivity impairment is soil compaction. Soil compaction can also result in off-site impacts due to reduces water infiltration, and thus is appropriately addressed under the water resources section. See Letter #12, Comment #78. The proposed temporary roads would have direct adverse soil impacts on approximately two acres of ground occupied by the roads, but would not result in measurable impacts to the streams (DEIS pg. 3-134). The road segments are very short, would have an inconsequential effect on the road density in the respective watersheds, and would be recontoured after use. Total disturbance resulting from harvest activities, temporary road construction and helicopter landings areas are summed in DEIS Table 3-38 on pg. 3-119. The worksheet is in the project file.

Letter #12 – The Ecology Center

The basis for the rationales and assumptions used on page 3-116 is not presented. Scientific studies have told a different story.

The DEIS's narrow interpretations of FSM 2500-99-1 and the Forest Plan mean the FS never has to even consider, during project planning and review such as for Garver, the soil conditions in old cutting units or in areas that have experienced soil damage from other causes such as natural or prescribed fire, cattle grazing, natural or management-induced landslides, off-road vehicle use, or even from a high density of roads in a given watershed. The full meaning of "cumulative impacts" on soil productivity was never approached in the DEIS. It is irresponsible for the FS to fail to consider cumulative effects on a resource as important and valuable as the soils.

The meaning of "soil productivity" in the terminology of NFMA is largely ignored. In FSM 2500-99-1 the FS claims that "Soil quality is maintained when erosion, compaction, displacement, rutting, burning, and loss of organic matter are maintained within defined soil quality standards." But even if the FS were to meet the 15% Standard in all Activity Areas forestwide, and even if the soil conditions of land outside proposed activity areas could reasonably be ignored, the FS still cannot assume that there has been no "significant or permanent impairment of the productivity of the land" as NFMA requires. For example, the DEIS fails to consider the high road density on the roaded portion of the project area.

Also, soil productivity can only be assumed to be maintained if it turns out that the soil Standards work. To determine if they work, the FS would have to undertake objective, scientifically sound measurements of what the soil produces (grows) following management activities. But the FS has never done this on the KNF.

It is reasonable to expect that in order for the FS to assure that soil productivity is not or has not been significantly impaired, to assure that the forest is producing a sustained yield of timber, for one example, tree growth must not be significantly reduced by soil-disturbing management activities. Grier and others (1989), in a Forest Service General Technical Report, adopted as a measure of soil productivity: "the total amount of plant material produced by a forest per unit area per year." (P. 1.) And they cite a study finding "a 43-percent reduction in seedling height growth in the Pacific Northwest on primary skid trails relative to uncompacted areas" for example. And in another Forest Service report, Adams and Froehlich (1981) state:

Measurements of reduced tree and seedling growth on compacted soils show that significant impacts can and do occur. Seedling height growth has been most often studied, with reported growth reductions on compacted soils from throughout the U.S. ranging from about 5 to 50 per cent.

←92

Response to Comment #92: The basis for assumptions #1-#5 on DEIS pg. 3-116 are in the project file (KNF Forest Soil Analysis Guidelines). Assumptions #6-#7 use estimated disturbance area sizes of new helicopter landings and temporary roads. The soil analysis for this project was conducted according to National, Regional and Forest guidelines and standards.

←93

Response to Comment #93: The cumulative effects of all disturbance were considered in assessing percent existing disturbance in proposed activity areas as shown in Table 3-36 and 3-37 on DEIS pgs. 3-117 – 3-118. The project file contains the results of extensive field monitoring done to determine the existing condition of proposed units that have had previous management activities. No detrimental disturbance from natural or prescribed fire, livestock grazing, landslides or ORV use was observed or is expected in any of the activity areas. All proposed activities are designed to meet the Region 1 Soil Quality Standards. These standards require that soil properties and site characteristics be managed in a manner consistent with the maintenance of long-term soil productivity, soil hydrologic function, and ecosystem health. The soil analysis indicates that all alternatives and all activities proposed by the alternatives would meet the Region 1 Soil Quality Standards through the implementation of management practices outlined in Chapter 2 and restoration of landings and heavily used skid trails, if needed, to reduce the total amount of detrimental soil impacts. All Forest Plan management direction would be met by the proposed alternatives (DEIS pg. 3-119).

←93a

Response to Comment #93a: The 2001 soil productivity monitoring report (F-4) concludes that "...no unit was greater than 15 percent in the last three monitoring seasons..." (See Soil References section of the project file.) When considering soils impacts from roads in an analysis, then up to 20% disturbance of the activity area is allowed (FSH 2590.18). Road densities of 5-6 miles/sq. mi. may disturb 5% of an activity area. Road densities in the project area do not exceed this value, so the 20% total disturbance is not exceeded.

Adams and Froehlich (1981) also provide reasons why impacts beyond the directly compacted 15% of an area must be considered in any reasonable definition of soil productivity:

Since tree roots extend not only in depth but also in area, the potential for growth impact also becomes greater as compaction affects more of the rooting area. In a thinned stand, for example, you can expect the greatest growth impacts in residual trees that closely border major skid trails or that have been subject to traffic on more than one side of the stem."

In other words, when an Activity Area reaches 15% detrimentally impacted soils via compaction, tree growth outside the skid trail, or beyond the 15% compacted area, is affected. This is ignored in the DEIS.

The Northern Region recognizes that the Standards must be validated. FSM 2500-99-1 requires that Forest Supervisors must:

- Assess ... whether (soil quality standards) are effective in maintaining or improving soil quality;
- Evaluate the effectiveness of soil quality standards and recommend adjustments to the Regional Forester; and
- Consult with soil scientists to evaluate the need to adjust management practices or apply rehabilitation measures.

This all implies that monitoring must be undertaken. Furthermore, FSM 2500-99-1 recognizes that soil productivity is defined not merely in terms of the absence of meeting the 15% standard. "Soil Function" is defined thus:

Primary soil functions are: (1) the sustenance of biological activity, diversity, and productivity, (2) soil hydrologic function, (3) filtering, buffering, immobilizing, and detoxifying organic and inorganic materials, and (4) storing and cycling nutrients and other materials.

And "Soil Quality" is defined as "The capacity of a specific soil to function within its surroundings, support plant and animal productivity, maintain or enhance water and air quality, and support human health and habitation."

Neither soil function nor soil quality, as FSM 2500-99-1 defines it, have ever been monitored on the KNF following management activities. Unfortunately, the FS seems to have only interpreted monitoring requirements in terms of maintaining no more than 15% of activity areas in a detrimentally disturbed condition.

←94

Response to Comment #94: All proposed activities are designed to meet the Region 1 Soil Quality Standards. These standards require that soil properties and site characteristics be managed in a manner consistent with the maintenance of long-term soil productivity, soil hydrologic function, and ecosystem health. The soil analysis indicates that all alternatives and all activities proposed by the alternatives would meet the Region 1 Soil Quality Standards through the implementation of management practices outlined in Chapter 2 and restoration of landings and heavily used skid trails, if needed, to reduce the total amount of detrimental soil impacts. All Forest Plan management direction would be met by the proposed alternatives (DEIS pg. 3-119).

←95

Response to Comment #95: The EIS and project record provide many references supporting information for monitoring of soils resources that were considered in the soils analysis. The required soil monitoring to determine existing detrimental disturbance has been performed (PF Doc. 168). Monitoring of post-harvest activities will also be performed as shown in the monitoring table for this project (ROD Appendix 3).

The Forest Management Handbook at FSH 2509.18 directs the FS to do validation monitoring to “Determine if coefficients, S&Gs, and requirements meet regulations, goals and policy” (2.1 – Exhibit 01). It asks what appellants are asking: “Are the threshold levels for soil compaction adequate for maintaining soil productivity? Is allowing 15% of an area to be impaired appropriate to meet planning goals?” The FS has no answers to these questions.

As discussed above, FSM 2500-99-1 superceded similar directives issued in 1994. Both versions of these Regional directives have required implementation and effectiveness monitoring, as described in FSH 2509.18. But the DEIS is unable to cite the results of any monitoring, required by the Standards, to provide a basis for assuming the Regional Soil Standards actually protect soil productivity.

Page-Dumroese et al. 2000 (an earlier version of which is cited in FSM 2500-99-1) emphasize the importance of validating soil quality standards using the results of monitoring:

Research information from short- or long-term research studies supporting the applicability of disturbance criteria is often lacking, or is available from a limited number of sites which have relative narrow climatic and soil ranges. ...Application of selected USDA Forest Service standards indicate that blanket threshold variables applied over disparate soils do not adequately account for nutrient distribution within the profile or forest floor depth. These types of guidelines should be continually refined to reflect pre-disturbance conditions and site-specific information. (Abstract.)

The FS’s methodology might approach adequacy if the FS were to have actually validated it by performing objective, scientifically adequate measures of compaction such as measures of bulk density. Adams and Froehlich (1981) state: “While general field observations can be useful in recognizing severe compaction problems, measurement of actual changes in soil density permits the detection of less obvious levels of compaction.” It is these “less obvious levels of compaction” that are missed by the kind of monitoring the FS has performed on the KNF.

For a study done on the Kootenai NF and the adjacent Flathead NF in Montana, soil scientists measured soil bulk densities, macropore porosities, and infiltration rates using paired observations of disturbed vs. undisturbed soils. They discovered that although “the most significant increase in compaction occurred at a depth of 4 inches... some sites showed that maximum compaction occurred at a depth of 8 inches... (and) “Furthermore, ... subsurface compaction occurred in glacial deposits to a depth of at least 16 inches.” (Kuennen, Edson, and Tolle, 1979.) There is simply no way that the FS has enough soil bulk density and other

← **95a** Response to Comment 95a: See response to comment #95 above.

← **95b** Response to Comment 95b: See response to comment #95 above.

compaction monitoring data collected at the adequate soil depths and in enough sites to be able to assure that the use of heavy machinery, as prescribed by the Garver project, will not significantly or permanently impair the productivity of the soil.

In interpreting the requirements of NEPA, the federal courts have evaluated the adequacy of mitigation measures that EISs and EAs rely upon. Relying upon inadequate mitigation measures to protect soils fails to meet this judicially specified test of compliance with NEPA regulations.

Following a study by Cullen and others (1991) which was carried out on the Kootenai NF and the adjacent Flathead NF, the authors concluded: “This result lends support to the general observation that most compaction occurs during the first and second passage of equipment.” And Page-Dumroese (1993), in a Forest Service research report investigating logging impacts on volcanic ash-influenced soil in the adjacent IPNF, states, “Moderate compaction was achieved by driving a Grappler log carrier over the plots twice.” She also cited other studies that indicated: “Large increases in bulk density have been reported to a depth of about 5 cm with the first vehicle pass over the soil.” Williamson and Neilsen (2000) assessed change in soil bulk density with number of passes and found 62% of the compaction to the surface 10cm to come with the first pass of a logging machine. In fine textured soils Brais and Camire (1997) demonstrated that the first pass creates 80 percent of the total disturbance to the site.

Adams and Froehlich (1981) state, “Unfortunately, little research has yet been done to compare the compaction and related impacts caused by low-pressure and by conventional logging vehicles.”

Another problem with the FS’s soil monitoring is that it fails to measure soil productivity in terms of loss of soil nutrients due to logging activities, including removal of boles, branches, and from site preparation methods such as burning. DeLuca (2001) states:

Organic matter is clearly lost from forest floor and often from the mineral soil following wildfire or prescribed fire. Organic matter is also lost from sites when net mineralization is stimulated by higher temperatures caused by opening of the canopy and removal of understory. (Internal citations omitted.)

From Grier and others (1989):

The potential productivity of a site can be raised or lowered by management activities causing a permanent or long-term increase or decrease in the availability of nutrients essential for plant growth. (P. 27.)

...Any time organic matter is removed from a site, a net loss of nutrients from that site also occurs. In timber harvesting or thinning, nutrient losses tend to be proportional to the volume removed. (P. 27.)

...Slash burning is a common site preparation method that can affect soil chemical properties tremendously. A great deal of controversy is often associated with using fire because of the wide variety of effects, some of which are definitely detrimental to site quality and some of which are beneficial. (P. 30.)

The DEIS also fails to cite monitoring results showing the FS has been able to correctly implement the Graham, et al. 1994 coarse woody debris guidelines on the KNF. The FS must evaluate the adequacy of such required mitigation measures. An environmental impact statement must present a “reasonably complete discussion of possible mitigation measures.” Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 351 (1989).

The degree of cumulative impacts due to activities on private lands is poorly analyzed in the DEIS.

The definition of “short-term effects” vs. “long-term effects” does not appear in the DEIS, making interpretation of analyses that use such terms impossible.

The DEIS does not reflect that the FS has undertaken the Roads Analysis Process as specified in the new roads policy directives.

The economics discussion is very inadequate. Sustained yield is obviously an economics issue; the Forest Plan obviously failed at specifying or achieving sustained yield. How does the FS now define sustained yield on the KNF?

NFMA requires Forest Supervisors to manage each national forest “in a way that maximizes net public benefits in an environmentally sound manner” (36 CFR §219.1). Compliance with NFMA in this regard is missing in the DEIS.

The DEIS does not provide the public with complete and accurate, audited, financial information. The DEIS also does not fully disclose the natural resource benefits associated with unlogged forests and does not fully disclose the direct, indirect, and cumulative socio-economic costs of the timber sale program. These changes are required by the Multiple-Use Sustained Yield Act (“MUSY”), the Forest and Rangeland Renewable Resources Planning Act of 1974 (“RPA”), the National Environmental Policy Act (“NEPA”), the Administrative Procedure Act (“APA”), the National Forest Management Act (“NFMA”), the Global Climate Change Prevention Act (“GCCPA”), and the Forest Service Handbook and Manual implementing these regulations and rules.

←**96** **Response to Comment #96:** The District recognizes the need to monitor the retention of coarse woody debris. Specific units would be monitored during this project to assess changes in amounts of coarse woody debris before and after both harvest and slash disposal. The focus of this monitoring would be to determine how to ensure retention of adequate amounts, sizes and distribution of coarse woody debris, especially in wet habitat types. See ROD Appendix 3. See also Letter #12, Comment #41.

←**96a** **Response to Comment #96a:** As explained on DEIS page 3-112, the analysis area for direct, indirect, and cumulative effects to soil resources is the Garver project activity areas; therefore impacts on private lands were not part of the analysis.

←**96b** **Response to Comment #96b:** The Roads Analysis Process documentation is completed as referred in Section X(8) of the Garver ROD and is located in the Transportation section of the project file.

←**97** **Response to Comment #97:** Section 36 CFR 219.14 refers to Forest Planning, not project level planning. Please refer to the Forest Plan, Appendix B, Chapter 1V for information on how economics were analyzed at the Forest Plan Level. Page 3-166, 167 of the EIS explains that the economic analysis for this project is specific to harvest activities associated with the proposal. Specific project costs are detailed in the Project File.

NFMA regulations at 36 CFR §219.14(b) require the FS to conduct an in-depth economic analysis to determine the costs and benefits of proposed timber sales. Costs should include the anticipated investments; maintenance, operating, management, and planning costs attributed to timber production activities, including mitigation measures necessitated by the impacts of timber production. Further benefits should be expressed as expected gross receipts to the government. Such receipts shall be based upon expected stumpage prices.

The DEIS fails to comply with NEPA at 40 CFR §1502.23 regarding the performance of an accurate and reliable cost-benefit analysis.

The FS must tell the full economic story of what the project's impacts would be to taxpayers, not just to local timber interests.

NFMA and the Forest and Rangeland Renewable Resources Planning Act (RPA) require management of national forest system lands in a manner that "maximizes long term net public benefits" [36 CFR §219.1(a)]. The Forest Service's planning regulations have defined the term "net public benefits" as the "overall value of positive effects (benefits) less all associated inputs and negative effects (costs)." NFMA requires a sophisticated consideration of benefits and costs, including use of both market and non-market methods of determining existing and future resource values, methods to determine opportunity costs, and use of best available quantitative and qualitative techniques [(36 CFR §219.12(e); §219.12(f)2; §219.1(b)12]. Costs and benefits must be assessed not only from the perspective of the Forest Service, but from the perspective of "all other private and public" interests (36 CFR §219.12(g)3i). Economic considerations relevant to forest planning apply equally to the national forest system logging program as a whole, individual forest plans, and individual timber sales [36 CFR §219.27(b)1].

In preparing the Garver DEIS, the FS did not meet the substantive requirements regarding economic analyses set forth in NFMA. Specifically, the FS did not incorporate a wide range of external economic costs that will be passed on to public agencies, private landowners, business owners, and others adversely affected by the timber sale in combination with other timber sales ongoing and planned across the Forest, the Region, and the national forest system, as a whole. These include:

- Costs associated with wildfires that originate in national forest timber sale areas and are primarily caused by logging or the slash left over by logging operations. Historical data are available that can relate past timber sales on national forest lands with wildfires, and economic models are available to assign individual timber sales a risk or cost factor associated with potential

future fires;

- Decreased private property values in the proposed project area attributable to lost scenic, aesthetic, and recreational values on the lands affected by the proposed timber sale and other timber sales in this area;
- Lost business revenue incurred by those engaged in the manufacturing, distribution, and sale of alternative fiber products in the region who face competition from subsidized public timber sales;
- Lost business revenue incurred by those engaged in ecologically sensitive timber harvest on private lands who face unfair competition from subsidized public timber sales implemented under less costly, less ecologically sensitive practices such as those usually proposed by the Forest Service;
- Costs incurred by county and state governments related to repair and maintenance of roads damaged by log trucks;
- Costs incurred by county and state governments as well as private individuals related to loss of life or personal injury from collisions with or accidents caused by logging trucks transporting logs from national forest system lands;
- Lost revenue and jobs incurred by those engaged in businesses related to recreation, fisheries, tourism, and other non-timber forest uses that will be precluded by proposed timber sales. Even if the site-specific effects of the proposed timber sale on these uses are small, the cumulative effects of one sale in combination with all others in the affected watersheds may significantly alter the aesthetic attraction of these entire watersheds to the point where business related to non-timber uses are no longer viable;
- Increased filtration costs incurred by private and municipal water users downstream attributable to the increased sediment load created by the proposed timber sale and all others in the affected watersheds.

Each of the effects noted above requires analysis by the FS because they fall squarely within the definition of direct, indirect, and cumulative effects as well as connected actions described by NEPA (40 CFR §1508.7, §1508.8, §1508.25) and are significant at a broad national or regional scale.

The FS must complete the necessary qualitative and quantitative assessments to incorporate the costs identified above as well as all other external economic costs.

If costs cannot reasonably be assessed on an individual timber sale basis, the FS must first complete the analysis on a national, regional, or watershed scale and then assign a proportion of these costs to individual sales using established quantitative methods.

In addition, NEPA documents must adequately discuss or assign value to a wide range of ecosystem services performed by intact forests in proposed project areas. To meet the letter and intent of NFMA, the FS must analyze the market and non-market benefits of unlogged forests in analysis areas, including:

- Their role in regulating the flow of water in the affected watersheds,
- Their role in mitigating flash floods and other catastrophic precipitation events;
- Their role in purifying water for downstream users;
- Their role in maintaining long term forest productivity.
- Their role in providing a source of native organisms vital to regeneration and forest development in surrounding areas.
- Their role in mitigating pests.

The FS must incorporate ecosystem service value as a standard component of the agency's environmental assessment process. Failure to do so will artificially inflate the value of forests as timber relative to their role in regulating climate, purifying water, and supporting aesthetic or recreational uses. Unless project NEPA analyses incorporate ecosystem service values, they cannot meet NFMA's mandate to properly assess the value of all forest resources and functions that have a market value [36 CFR §219.12(e)(1)ii, iii].

Numerous government studies confirm the FS's financial losses and lack of accountability. According to the most recent General Accounting Office (GAO) report on the timber sale program, released in 1998, the USFS lost over \$1 billion selling National Forest timber between 1995 and 1997.

In a report released in January 2001, the GAO found the FS has not provided Congress and the public with a clear understanding of what is accomplished with appropriated funds. According to the report, "the Forest Service and Congress do not have accurate financial data to track the cost of programs and activities and to help make informed decisions about future funding."

The GAO states:

For fiscal years 1995, 1996, 1997, and previous years, the Office of the Inspector General reported that because of significant internal

←97a

Response to Comment #97a: Maximizing net public benefit refers to Regional or Forest-wide economic analysis, which is not within the scope of this decision. There is no requirement for project-level economic analysis to address non-commodity economic values. Title 40, Code of Federal Regulations for NEPA (40 CFR 1502.23) indicated "For the purpose of complying with the Act, the weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis and should not be when there are qualitative considerations." Effects on resources are documented in individual resources sections. The economic analysis is in compliance with APA, NEPA and NFMA.

control weaknesses in various accounting subsystems, the Forest Service's accounting data were not reliable. Despite these weaknesses, we used the data because they were the only data available and are the data that the agency uses to manage its programs.

The DEIS is not in compliance with NEPA or the Forest Plan due to the unreliability of the accounting data.

In January 1999, the GAO named the financial management system of the USFS to its "High Risk List" of government programs susceptible to waste, fraud and abuse. The GAO reported the problems were worsened by a new accounting system that had not been able to produce necessary reports on assets, liabilities and revenues. In January 2001, the GAO reported, "the Forest Service does not appear to be fully committed to making performance accountability one of its top priorities, and major hurdles to achieving performance accountability remain."

Since fiscal year 1996, the Department of Agriculture Inspector General has been unable to form an opinion on the financial health of the FS, due to a lack of supporting documents to verify accounts for land, buildings and equipment, as well as errors in financial statements.

Response to Comment #98: As stated in the EIS, Heritage inventories were already completed for some units and were 'ongoing' in 2002 for the remaining units.

←98

The cumulative effects of the liquidation of private industrial timber lands on the local and regional economies is not adequately considered in the DEIS.

When will the FS undertake the required surveys of cultural resources that might be present in areas to be disturbed by the project?

We specifically request that you express all modeled outputs as numbers with confidence intervals, which is a minimum requirement for one to be able to understand the amount of imprecision, or error, in the models (estimates).

Please keep each organization on the list to receive all future mailings regarding this project proposal.

Sincerely,

Jeff Juel
The Ecology Center
And on behalf of
Ryan Shaffer
Alliance for the Wild Rockies
PO Box 8731
Missoula, MT 59807

Mike Petersen
The Lands Council
921 W. Sprague, Ste. 205
Spokane, WA 99201

Letter #13 – Pam Fuqua

Response to Comment #1: We appreciate your positive comments on this project.

Response to Comment #2: Forest and District guidelines for noxious weed management have not been in place for very long. Detailed monitoring of the type of mitigations prescribed in the document has not been completed to display effectiveness. However, treatments of tansy ragwort on the east side of the Forest have shown this type of treatment (gridding the area with spray crews, treating weeds as they are found) to be very effective (FY 2001 Forest Plan Monitoring Report). Montana Department of State Lands manages a section adjacent to a private section within the tansy-infested area. Tansy ragwort is nearly absent from the state section, while being rather abundant in the private section. See also response to Letter #2, Comment #5.

Response to Comment #3: Please refer to response to Letter #11, Comment #1.

Response to Comment #4: The Ecosystem Assessment at the Watershed Scale identified a number of specific resource and vegetative conditions not meeting long-term management objectives. Comparing the current conditions in areas such as Unit 14 with our understanding of historic reference conditions it was felt that some management practices were appropriate to consider. As outlined in the purpose and need (DEIS pg. 1-5), these practices intend to create conditions that, in the long run, would be more suitable to a fire-maintained ecosystem by improving species and structural diversity in stands that have declining health and species considered at risk due to fire exclusion, old age, etc. In the short term there will be an economic benefit in the harvest of excess and poor quality trees, as well as the creation of a forage opening for wildlife. The prescription for this unit meets the intent of the Forest Plan management allocation, is consistent with the purpose and need for the project, and is identified in the Northern Region Overview as an appropriate means to restore species at risk. The following is the marking guide for Unit 14, which shows how we translate this intent to marking of this specific unit:

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This unit has a lot of decadence and availability of quality leave trees is not consistent throughout the area. Mark with the intent of leaving all WL overstory relics and an average of 8-10 quality WL, DF, ES dominant and co-dominant trees/acre, selecting out trees with <30% live crowns, poor form, directly competing with potential crop trees, etc. Old DF overstory relics can be left if they appear to be healthy and would have some longevity.

Leave trees are expected to function as a future seed source, snag replacement, and structural diversity. In order to leave the best trees, uniform spacing is generally not desirable, but for reference 8-10 tpa equates to an approximate spacing of 70 feet between trees. Use this as a guide only. Leave trees do not have to be uniformly spaced but should be distributed throughout the treatment area

Leave trees selected as a seed source should have good, healthy crowns, minimum external evidence of disease or stem decay and be reasonably windfirm. WL with dwarf mistletoe rating over 3 can be left as a snag replacement, with the intent that it would be girdled. Intermediate size ES with full, healthy crowns and otherwise healthy indicators should be left over any poor quality WL or DF being considered as a seed tree.

All existing, functional snags (ie: broken tops, cavity nester signs, etc) should be left. Snag replacement trees should be left in proximity to other leave trees, if at all possible.

Nov 30, 2002

Shaw Revised Range District
Big, Montana 59935

Project Garver DEIS
Date Received 12/2/02 (Phone Call)
Comment No. 13

Mr. Baltrai,

I am writing to comment on the Garver DEIS. First, thank you for listening to our comments during the past months and for developing an old-growth alternative D which the district now prefers. I support changes in old-growth management in Smoky compartment and Hill Tract area.

Woods: I see you have lots of guidelines for weed control but I also see slides spreading massively. Are your guidelines working? Some old logan cuts are yellow with hawkweed and you have more recent cuts planned next to them. Please drop these planned cuts or they too will be solid hawkweed.

Burn D: The small fuels reduction unit next to private property should be done by hand. Use of machines in there will increase weed invasion and disturb ground cover.

Unit 14: While I appreciate the fact that you have reduced the size of this cut, that forest is the only remaining natural forest we have as we killed all else. Burn all of the old cuts around it, that forest should remain intact.

App Council Rep: It like to discuss this road further with you. It is a very wide road that is closing in naturally from the sides. If you spray for weed control, you will kill the natural vegetation and allow more weed invasion. Are there alternatives? The important is the intermediate harvest unit #38A up that road? I also hate to allow forward cutters up that road. Snags would disappear.

Highly habitat: Show increased low habitat to 55% during and after project.

Finally I want to say how nice it has been to work with the ID team on this project. You have all been receptive and responsive. Thank you.

Sincerely,

Pam Fuqua

PAM FUQUA
35500 YAK RIVER RD
TRAY, MT 59935
ph - 295-6007

←5

Response to Comment #5: Please see response to Letter #11, Comment #1.

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←8

Response to Comment #6: There is a need to reduce the stand density and associated canopy closure in Unit 38A. The stand density is uncharacteristically high, the overstory is showing signs of reduced vigor due to drought stress and tree competition, and conditions are trending towards Douglas-fir beetle susceptibility. Thinning is expected to re-allocate growing space to fewer, more fire adapted trees, reduce the threat of crown fire in the overstory trees, improve winter range functions by creating conditions more suitable to prescribed burning. Transline would likely be used to manage the majority of weeds on the Lap Creek road while leaving other vegetation intact as explained in Letter # 11, Comment #1. Due to habitat effectiveness considerations for grizzly bear, Unit 38A is planned as a winter log unit although this fact was omitted from the Timber Harvest Treatment Summary, on DEIS Appendix A-11, but is corrected in ROD Appendix 1. This road would be closed for the duration of the harvest activities to the public and thus, the snag component would be protected (see ROD Appendix 4).

Response to Comment #8: See response to Letter #2, Comment #4.

COMMENTS

ON
GARVER DEIS

Project Garver DEIS
Date Received 12/2/02
Comment No. 14

1. I like alternative D, with comments.
2. Page 5-6, table 5-2, Issue #2, OLD GROWTH; should not the 122 acres of habitat with potential for old growth management be added to MA-13 in the Forest Plan by amendment?
3. Page 1-3, line 15, modify sentence as follows: "Roads used for haul in other watersheds will also receive BMP work, depending on ----- etc." This work needs to be done when funds become available.
4. Page 2-8, line 31. Cannot Unit 51 be helicopter logged like Unit 52? The two units are near one another, and the prescriptions are similar. This would eliminate the need for a temporary road.
5. Page 2-8, line 32. Unit 33 is bordered by by Road 5861, I believe. If so, no temporary road would be needed.
6. Page 2-8, line 35. Won't the helicopter landing off the 5886 road serve for Unit 52? (and also Unit 51)

←1

Response to Comment #1: Note that in Alternative D-Modified we have dropped 141 acres of harvest in stands with old growth attributes. These undesignated acres of habitat with potential for old growth management in compartment 22 have not been added to old growth management areas to date because compartment 22 already has approx. 14% of the land base <=5,500' elevation designated into old growth management areas. This is 375 acres above Forest Plan standards which require that 10% of the land base <=5,500' elevation is designated into old growth management areas (see ROD Appendix M). 146 acres of this 370 acres of old growth designated above the 10% standard has been designated to supplement the deficiencies of old growth in adjacent compartments.

←2

Response to Comment #2: The road BMP work in the West Fork Yaak watershed is "committed to" which means that if the timber sale cannot support all the required road work, other funds would be obtained to complete this work. It is not certain we will be able to obtain funds to complete BMP work on the other roads used in timber haul for this project, so the district has prioritized roads based on importance of improvement to fish habitat (see map in ROD Appendix 1-18 for a display of this prioritization).

←3

Response to Comment #3: The trees in Unit 51 are too small to be economically feasible for removal with a helicopter. Unit 51 is accessible by an existing road.

←4

Response to Comment #4: The temporary road for Unit 33 is necessary to access the landing area.

←5

Response to Comment #5: The landings that are indicated on the alternative maps (DEIS Maps M-M-4 – M-6) are areas that are predicted to be used based on access and other factors for the purposes of the analysis. Actual landing locations will be by agreement with the purchaser and could vary from those analyzed. Logging systems are planned based on economic considerations, resource protection measures, and systems that will most effectively achieve the treatment objectives. Occasionally, more than one logging system will meet all of the objectives and either system can be used.

²
COMMENTS (CONTD)

7. Page 2-8, line 43, Paragraph 2; Revise to read "BMP work in the other watersheds will be done as funds become available, ----."

←6

Response to Comment #6: See response to Letter #14, Comment #2.

8. Page 2-8, TABLE 2-2, line 19. Revise per comment 7, above.

9. Page 2-20, line 19; should not the Forest Plan be amended to include in NPA 13 the old growth in Units 11, 12, and 17?

←7

Response to Comment #7: See response to Letter #14, Comment #1.

10. Page 3-26, line 1; Is scarification planned? I hope not!

←8

Response to Comment #8: The descriptions in this section of the analysis are intended to describe how forest conditions change given certain site influences from the proposed actions. While soil scarification is not being specifically required, it is expected that where portions of trees are skidded or yarded to trails or corridors, some exposure of mineral soil and duff removal will occur. These actions meet soil and water quality standards for disturbance and can have the added indirect benefit of preparing the site for conifer reforestation and the means for other understory vegetation to flourish.

11. Page 3-42, Fourth Paragraph, same as Comment 9?

12. Page 3-54, line 38. Units 33 and 35 should not be harvested during spring bear season.

←9

Response to Comment #9: Units 33 and 35 are two units were not indicated in the modeling for spring habitat based on parameters recommended by Wayne Kasworm, Grizzly Bear Biologist, USFWS (see wildlife references section of the project file). However, spring harvest of these units will be avoided due to concerns regarding potential cambium damage (see ROD Appendix 2).

13. Page 3-72, last line; Units 5, 24, 32B and 34. Movement of equipment through RHCAs is a violation of ZNF5 and the Forest Plan and should not be allowed.

←10

Response to Comment #10: Movement of equipment through RHCAs at designated crossings, if suitable sites can be found that adequately protect water and soil resources, is allowable. As explained in ROD Appendix 2, an alternative practice permit from the Department of Natural Resources and Conservation may be required. These crossings would apply to Units 5 and 34 under the selected alternative. See response to Letter #12, Comment #69.

14. Page 3-133, 3rd Paragraph, line 3. See 10, above

15. Page 3-134, next to last paragraph. See comment 13, above

COMMENTS (CONT) (3)

16. Page 3-135, Line 26, Skidders should not be allowed to cross RHCA's. See Comment 13, above.

17. Appendix A, Page A-10. Should not Unit 35 be helicopter-logged at the same time as Unit 34? They are next to one another and the prescription is the same.

←11 **Response to Comment #11:** Unit 35 is planned as a tractor harvest unit since it is feasible, while protecting resources, and is the least costly method.

18. This DEIS is very good! It's clear and easy to read. We liked the photographs in Appendix B.

←12 **Response to Comment #12:** We appreciate your positive comments.

Dear Mr. Balboni,

As a landowner in the Yaak Valley and as one who is intimately familiar with the area, I would like to comment on the proposed Garver project now up for review. Though the agency has been very communicative and responsive to the concerns of local residents and the Yaak Forest Council, I feel that there are still some critical concerns not being addressed.

-Noxious Weeds: I have given a thorough reading of Leslie Ferguson's mitigation proposal with regard to invasives, particularly the Hawkweeds. I have walked the ground near the proposed regen units and can tell you that there is no way the FS will stop a serious invasion from adjacent units near the West Fork area. I implore the district to get *really* proactive with the weed issue as it is an absolute time-bomb. Hawkweed invasion in the W. Fork drainage is at epidemic proportions, as it is throughout the valley. I ask that you not conduct any ground disturbing activities in or around infested areas. Please conduct more thorough inventories of invasives and target them for treatment. Get the locals involved if manpower is a problem.

-Logging Practices: There is a mountain of evidence that proves all clear cut practices (and other euphemisms for clear cutting) to be devastating to forest ecosystems. Please, no more even-aged, regen or other such logging. The land cannot sustain it and the agency has no budget for actual on the ground restoration for weeds, hydrology, etc.

-Griz: The bears need more security and room to roam. Food is not as much of an issue in the Yaak as security and roads. Please increase the core habitat area based on the bears needs, which is likely more than the proposed 50-53%.

Again, thanks to you and the ID team for listening to the locals and our concerns.

Respectfully,
David Cronenwett

←1 **Response to Comment #1:** Please see response to Letter #2, Comment #5 and ROD Appendix 2 for a description of the weed treatment included in this decision to minimize weed spread from activities. Also, the selected alternative drops approximately 81 acres of regeneration harvest as compared to Alternative D. Management of timber in an area infested with noxious weeds without increasing weed populations is difficult. The only way to do this effectively is with heavy commitments of time, personnel, equipment and chemicals. Volunteer labor with intensive supervision by a State of Montana licensed applicator would be one way to increase manpower with a limited budget.

←2 **Response to Comment #2:** All vegetation management practices on forested lands are preceded by a silvicultural exam and a site-specific prescription written or reviewed by a certified silviculturist. The prescription process considers direction and objectives in the Forest Plan, site-specific factors, and a review of the applicable technical and scientific literature, and practical experience. The prescription details the actual vegetative manipulation planned and includes standards found in the Northern Region Guide, the Silvicultural Practices Handbook, and the management requirement listed in 36 CFR 219.27 (b). The silvicultural prescription process is also a concurrent activity with the interdisciplinary team process in preparing projects. Where the intent of management practices are to create a new age class of trees and maintain single and two-aged stands, even-aged methods will be proposed. The amount, type and distribution of reserved trees depends on their availability, health, the need for shade or a seed source, and the desired target stand. As outlined in the opening statement, all stands proposed for treatment of any type were reviewed and a diagnosis was made to determine the options (see FEIS Appendix L). Regeneration harvest was only proposed where conditions were not suitable for other treatment options and regeneration success is assured.

←3 **Response to Comment #3:** See response to Letter #2, Comment #4.

December 2, 2002

Michael Balboni, District Ranger
Three Rivers Ranger District
1437 N. Hwy. 2
Troy, Mt 59935

Dear Mr. Balboni,

I'd like to comment on the Garver project. Old-growth forests in the Yaak are very important to me. Thanks for developing the preferred alternative that focuses on increasing and maintaining old-growth forests in the Garver project area

I support the Garver proposal to reduce fuels in the urban interface zone around the Yaak community. I think you should focus on drier forest habitats and give higher priority to areas with high densities of smaller encroaching trees.

I also support the proposal to move core Grizzly habitat farther away from private land and I think core habitat should be increased during and post project to 55%, rather than the 50%-53% that is now proposed in the DEIS.

I am very concerned about the spread of noxious weeds, particularly, hawkweed, into forested land. I ask that absolutely no regeneration harvest or any other form of clearcut harvests be planned that are adjacent to existing regeneration units which already have hawkweed infestation.

I don't support regeneration harvest or other various forms of clearcuts unless there is an urgent need to treat an area of high disease and blowdown that is close to private land or residences.

I'd like to thank the Three Rivers ID team for listening to and responding to local residents' concerns about the Garver project.

Sincerely,

Sue Janssen

←1

Response to Comment #1: Thank you for your support of the proposed fuels reduction projects in the urban interface around the town of Yaak. While there is an identified treatment need in all of the proposed fuels treatment units, the drier forest types and those with an abundance of smaller diameter trees are a priority due to the fire ecology of the sites. Many of the areas have missed 5-7 fire cycles and one of the objectives of the fuels treatments is to return fire to the areas.

←2

Response to Comment #2: See response to Letter #2, Comment #4.

←3

Response to Comment #3: Please refer to response to Letter #2, Comment #5.

←4

Response to Comment #4: See previous response to Letter #15, Comment #2. Also, restricting the use of regeneration harvest to areas adjacent to private land or residences would likely not meet the purpose and need for the project, ignores undesirable trends identified in the Ecosystem Analysis at the Watershed Scale, ignores the findings of the Northern Region Overview that include restoration of species at risk.



Judy H. Martz, Governor

P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • Website: www.deq.state.mt.us
December 2, 2002

Michael L. Balboni
Three Rivers Ranger District
1437 N. Hwy 2
Troy, MT 59935

Project Garver DEIS
Date Received 12/4/02
Comment No. 17

Dear Mr. Balboni,

These comments concern the Draft EIS for the Garver Project. They focus on water quality issues in Lap and Pete creeks and the West Fork of the Yaak River.

The State of Montana has established Water Quality Standards to protect the beneficial uses of our rivers, lake and streams. All the waters in the project area are classified as B-1 by Montana's water quality standards. The designated beneficial uses of B-1 water bodies are drinking, culinary and food processing, after conventional treatment; bathing, swimming and recreation; growth and propagation of salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply (ARM 17.30.610).

Section 303(d) of the Federal Clean Water Act requires states to list all water bodies that fail to support designated beneficial uses. State law requires DEQ to develop Total Daily Maximum Loads (TMDLs) for all water bodies on the Montana 303(d) List. In addition, the EPA and the State of Montana are under a Court Order that requires TMDLs for streams on the Montana 1996 303(d) List.

The west fork of the Yaak River and Lap Creek are on the Montana 1996 303(d) list for partial support of aquatic life and cold-water fisheries (trout). Pete Creek is listed as threatened on the 1996 list. Water quality concerns include sediment and flow alteration. The probable sources of the impairments include silviculture, grazing and roads. **The explanation on page 3-121 of the DEIS does not mention that Lap and Pete creeks will be reassessed by year 2004 and TMDLs prepared if they are found to be impaired.**

In addition, mitigation measures and forestry best management practices are required that minimize or eliminate water pollution. The applicable Montana water quality standard is ARM 17.30.623: *No increases are allowed above naturally occurring concentrations of sediment...which will or are likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare,*

Response to Comment #1: Correct. Delete the following two sentences from the last paragraph on page 3-120: 1 "However, the State has found that there was insufficient scientific data to support a determination the streams were actually impaired. Between 1996 and 2000 a number of streams have been removed from the list for lack of sufficient credible data supporting the impairment listing including Slim, Hensley, Lap, and Pete Creeks." Replace with the following: Although the State of Montana removed a number of streams from the list between 1996 and 2000, the EPA and State of Montana are now under a Court Order that requires TMDLs for streams on the 1996 list. As a result Lap and Pete Creeks, which were removed from the list between 1996 and 2000, will be reassessed. The target date for reassessment and preparation of TMDLs for all impaired stream segments in the Yaak watershed is December 31, 2004. (See map at ROD Appendix 1-18 for a display of the locations of the WQLS drainages in the project area).

←1

livestock, wild animals, birds, fish, or other wildlife. Please include assurances that the proposed water quality mitigation measures and BMPs will be implemented as part of the project and that there is a reasonable assurance of funding for water quality mitigation measures.

The Montana Water Quality Act states: *Pending completion of a TMDL...new or expanded nonpoint source activities affecting a listed water body may commence and continue provided those activities are conducted in accordance with reasonable land, soil, and water conservation practices (MCA 75-5-703).* Some of the activities proposed for the Garver Project have the potential to affect water quality by increasing sediment delivery to rivers and streams that flow from the forest. These activities include prescribed fire, logging and roads.

ARM 17.30.637 is also relevant: *Pollution resulting from storm drainage, storm sewer discharges, and non-point sources, including irrigation practices, road building, construction, logging practices, over-grazing and other practices must be eliminated or minimized as ordered by the department. (ARM 17.30.637).*

The DEIS refers to an MOU with the State of Montana on page 3-120. I was unable to find an MOU that contains the wording indicated. Could you provide a citation?

Thank for the opportunity to comment. If I can be of assistance, call me at 406-444-7425 or e-mail at cmackin@state.mt.us.

Sincerely,

Carole Mackin
Resource Protection Bureau

G:\PPA\watershed\NonpointSourceProgram\Federal&StateFAs\Garver.doc

←2

Response to Comments #2 and #3: The road BMP work in the West Fork Yaak watershed is “committed to” which means that if the timber sale cannot support all the required roadwork, other funds will be made available to complete this work. Sediment sources at 20 road/stream crossings in the West Fork watershed will be reduced or eliminated through BMP work. Runoff that is currently concentrated in road ditches in three areas in the West Fork watershed will be dispersed by adding ditch relief culverts. Runoff concentrated on the road surface will be dispersed with additional by drain dips and belt drains. This project will result in long-term improvements in water quality in the West Fork (DEIS pg. 3-136). This project will maintain existing water quality in all the other project area watersheds (DEIS pgs. 3-133:136). (See map in ROD Appendix 1-18 for a display of BMP work prioritization). BMP work will be implemented, but not necessarily to the same level as in the West Fork Yaak watershed. The priority in these other watersheds will be prevention of sediment at stream crossings. Implementation of BMPs in the timber sale harvest units is required under standard timber sale contract provisions for all harvest units. BMP audits on the Kootenai National Forest indicate a high level of compliance with these requirements during implementation (KNF September 2001a). As part of the ongoing TMDL assessment for the Yaak River basin, we are setting up six permanent monitoring reaches in the Garver project area this summer .

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Response to Comment #4: The citation source is “Memorandum of Understanding to Implement the Water Quality Management Program on the National Forests in the State of Montana” between the Montana Department of Health and Environmental Sciences and the Forest Service U.S. Department of Agriculture, January 30, 1987.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4, MONTANA OFFICE
FEDERAL BUILDING, 10 West 15th Street, Suite 3200
HELENA, MONTANA 59626

Kathy

Project Garver DEIS
Date Received 12/6/02
Comment No. 18

Ref: 8MO

December 4, 2002

Mr. Michael L. Balboni
Three Rivers Ranger District
Kootenai National Forest
1437 N. Highway 2
Troy, Montana 59935

Re: EPA Comments: Garver Draft
Environmental Impact Statement

Dear Mr. Balboni:

The Environmental Protection Agency (EPA) Region VIII Montana Office has reviewed the Draft Environmental Impact Statement (DEIS) for the Garver Project. The EPA reviews EISs in accordance with its responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act. Section 309 of the Clean Air Act directs EPA to review and comment in writing on the environmental impacts of any major federal agency action. EPA's comments include a rating of both the environmental impact of the proposed action and the adequacy of the NEPA document. A summary of EPA's rating system is enclosed for your information.

The EPA commends the Kootenai National Forest and Three Rivers District for preparing an informative DEIS that enhances public understanding and addresses the intent of NEPA to involve and inform the public and disclose effects. The EPA does not object to the preferred alternative, Alternative D, for vegetation management in a fire dependent ecosystem, and for improving and maintaining winter range conditions, improving old growth habitat, reducing fuels in the urban interface, improving growing conditions and management in overstocked sapling/pole stands, improving the quantity and quality of grizzly bear habitat and contributing forest products to the economy.

The EPA does have some concerns about potential erosion and sediment production from the proposed 1,259 acres of tractor timber harvest and approximately 1 mile of temporary road construction on the Garver project. Sediment production is likely to occur during tractor harvests and road construction and associated activities such as timber haul along logging roads during wet periods and spring breakup. However, the DEIS also shows that the alternatives appear to be

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Response to Comment #1: We appreciate your recognition that the Garver alternatives appear to be well planned and designed to address resource concerns and significant issues, and to minimize sediment production. The DEIS analysis on sediment delivery to streams concludes that application of BMPs and RHCA buffers makes direct sediment delivery from a harvest unit to a stream unlikely. The amount of sediment added would not be measurable at the scale of the West Fork, Pete Creek, or Main Yaak (DEIS pg. 3-135). There would be no measurable change in ECA in Lap Creek (DEIS pg. 3-132) and there are no haul road stream crossings in Lap Creek (Table 3-45).



well planned and designed to address resource concerns and significant issues, and to minimize sediment production. We understand that the tractor harvests would be limited to areas with less than 35% slope. In addition, we recognize that less disturbing logging methods are included to reduce ground disturbance in sensitive areas (e.g. 38% or 824 acres of helicopter logging, 2% or 52 acres of skyline cable logging, and 12% or 247 acres of winter logging).

We are pleased that no permanent roads are proposed, and that temporary roads would be minimized and would not be located near streams or in riparian areas or where stream crossings are needed. Skidding plans will minimize detrimental disturbance, and skid trails will be recontoured, waterbarred and seeded to reduce sediment production and transport. BMPs will be implemented to decrease sediment production and delivery to streams (e.g., recontour excavated areas, install waterbars, seed disturbed areas, improve road drainage, clean catchbasins and ditches, replace and add culverts, install drain dips, resurface roads, stabilize cut and fill slopes, reduce ground disturbance, and use Inland Native Fish Strategy standards and guidelines, including no timber harvest within RHCAs).

The EPA fully supports the proposals to improve road drainage and BMPs on 50 miles of existing roads and to conduct road maintenance to correct deficiencies and reduce long term sediment delivery. Improvements in road drainage, and reductions in sediment delivery from roads are important components for improving aquatic health in project area streams. We do ask if provisions are proposed to ensure that road drainage and stream crossings will be maintained for the roads that will be closed with earth barriers for grizzly bear protection?

←2

These planning and design features should mitigate adverse impacts to water quality, and as the DEIS states, assure that sediment increases are minor and of short duration, with "no measurable effects in fish bearing reaches." We are pleased with the efforts to consider and protect water quality, however, we do believe that some level of aquatic monitoring should be conducted to help document and validate the projected minimal or "no measurable effect" to water quality. The monitoring plan in DEIS Appendix F indicates that inspections are proposed to verify application of RHCAs, and to evaluate effectiveness of BMPs at dispersing water and decreasing erosion, however, it is not clear if such inspections will fully validate that there will be "no measurable effect" to water quality, and provide adequate feedback mechanisms to initiate additional measures, if needed, to meet Water Quality Standards.

←3

The EPA generally recommend that EIS's include a discussion of the three types of monitoring (implementation, effectiveness and validation monitoring) in a manner that shows how they are incorporated into proposed activities, and describes relationships between project monitoring activities and the forest-wide monitoring plan. This is needed to show that the effectiveness of BMPs is determined, and that compliance with Water Quality Standards is documented and validated.

We realize monitoring resources are limited, and that the proposed project appears to be well planned with attention toward water quality protection and restoration. However, we encourage conduct of some level of aquatic effectiveness and/or validation monitoring such as establishment of channel cross sections, and monitoring of aquatic habitat (e.g., pool frequency,

Response to Comment #2: BMP work will be completed on roads in the West Fork Yaak River used for haul prior to berming them for core. All roads that would be bermed for grizzly bear protection can still be maintained or repaired for watershed protection if the activity is approved by U.S. Fish and Wildlife Service. These roads would not necessarily be treated before berms are installed for the Garver project. Work on closed roads is prioritized at the District level based on watershed and fisheries concerns. The current focus for road-related watershed work is in O'Brien, Callahan, NF Keeler, the East Fork Yaak, and the South Fork Yaak. These watersheds have been prioritized based on fisheries, road problems, impacts of recent wildfires and/or management history. Road related sediment sources in the West Fork Yaak watershed will be identified by the Yaak Headwaters Group during the next two years. This information will be used in conjunction with the Yaak TMDL assessment to establish restoration priorities.

Response to Comment #3: We agree that monitoring is important. Water quality monitoring (ROD Appendix 3) includes BMP Implementation and Effectiveness Reviews. These steps will document the results of the protective measures employed in this project and serve as ongoing monitoring of their effectiveness in protecting water quality and downstream beneficial uses. The Forest Plan Monitoring Report for FY 2001 finds, "Implementation evaluations met the requirements almost 96% of the time. Effectiveness evaluations met the requirements of acceptable or better 94% of the time." (KNF September 2002). In addition, as part of the ongoing TMDL assessment for the Yaak River basin, we are setting up six permanent monitoring reaches in the Garver project area this summer .

w/d ratios, bank stability, substrate, LWD, and photo points) at least as a check to assure that minimal effects occur, and to document BMP effectiveness and Water Quality Standards compliance wherever possible. Aquatic monitoring may also assist in evaluating and documenting aquatic recovery associated with proposed road rehabilitation activities, and be of assistance in future TMDL development.

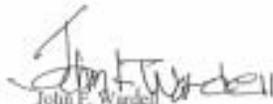
We understand that the Kootenai National Forest may enter into agreements with the EPA for participation in Yaak TMDL development efforts. The EPA very much appreciates the cooperation and assistance of the Kootenai National Forest in development of the Yaak TMDL, and we note that perhaps some of the monitoring carried out in association with this TMDL effort may assist in effectiveness or validation monitoring for the Garver project.

The EPA's more detailed questions, comments, and concerns regarding the analysis, documentation, or potential environmental impacts of the Garver Project are included in the enclosure with this letter. Based on the procedures EPA uses to evaluate the adequacy of the information and the potential environmental impacts of the proposed action and alternatives in an EIS, the Garver Project DEIS has been rated as Category EC-2 (Environmental Concerns - Insufficient Information). A copy of EPA's rating criteria is attached.

While we have some environmental concerns associated with tractor logging and road construction with the proposed project with 1,259 acres tractor harvests in watersheds of 303(d) listed streams (West Fork Yaak River), and with minimal aquatic monitoring, our level of environmental concern is low. The alternatives appear to be planned and designed to minimize adverse impacts.

The EPA appreciates the opportunity to review and comment on the DEIS. We also appreciated the opportunity to have EPA and MDEQ staff participate in a field trip to the Garver project area in July 2002. If we may provide further explanation of our comments and concerns please contact Mr. Steve Potts of my staff in Helena at (406) 457-5022 or in Missoula at 406-329-3313.

Sincerely,



John F. Wardell
Director
Montana Office

Enclosure

cc: Cynthia Cody/Julie Johnson, EPA, SEPR-N, Denver
Robert Ray/Mark Kelley, MDEQ, Helena

←4 **Response to Comment #4:** Yes, the KNF is actively working with EPA and the State of Montana in the development of TMDLs for the Yaak River basin. We agree that the monitoring we are conducting associated with the TMDL development may assist in effectiveness or validation monitoring for the Garver project area.

←5 **Response to Comment #5:** Yes, the alternatives have been planned and designed to minimize adverse impacts as demonstrated in the DEIS Chapter 3 effects analysis and discussed throughout the Garver Record of Decision

←6 **Response to Comment #6:** Thank you for your comments and active participation in this project. We appreciate your field trip attendance and interest in this project.

**U.S. Environmental Protection Agency Rating System for Draft Environmental Impact Statements
Definitions and Follow-Up Action***

Environmental Impact of the Action

LO - - Lack of Objections: The Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC - - Environmental Concerns: The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

EO - - Environmental Objections: The EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU - - Environmentally Unsatisfactory: The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1 - - Adequate: EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2 - - Insufficient Information: The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussion should be included in the final EIS.

Category 3 - - Inadequate: EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

* From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment, February, 1987.

EPA Comments on the Draft Environmental Impact Statement for the Garver Project

Brief Project Overview:

The Three Rivers Ranger District of the Kootenai National Forest prepared the DEIS for the Garver Project to evaluate a proposed action and alternatives for forest management in the 43,096 acre Garver project area in the West Fork Yaak River and Pete Creek, Lap Creek, Waper Creek and Mud Creek drainages northwest of Troy, Montana. The purpose and need for the project include promoting vegetation management more suitable to a fire dependent ecosystem, improving and maintaining winter range conditions, improving old growth habitat, reducing fuels in the urban interface, improving growing conditions and management in overstocked sapling/pole stands, improving the quantity and quality of grizzly bear habitat and contributing forest products to the economy. Significant issues include size, location and appropriateness of regeneration harvests (clearcuts) and issues revolving around redelineating and improving old growth habitat.

Four alternatives including no action (Alternative A) were evaluated. The proposed action, Alternative B, includes stand replacement timber harvest on 632 acres to produce 17.2 MMBF of timber, 310 acres of mechanical fuels reduction treatments, 874 acres of prescribed burning to reduce fuels and promote healthy conifer and shrub growth, including 234 acres of burning in the West Fork Yaak Inventoried Roadless Area (IRA), 900 acres of non-commercial thinning, and increases in grizzly bear core habitat in BMU 15 from 47% to 53% by earth berming several road segments that are currently gated. Approximately 1 mile of temporary road would be built and recontoured after use.

Alternative C includes most the activities proposed in Alternative B, and addresses the regeneration harvest issue and includes changes in unit size and shapes based on ground verification. Alternative C includes stand replacement timber harvest on 454 acres to produce 14.4 MMBF of timber, 318 acres of mechanical fuels reduction treatments, 883 acres of prescribed burning to reduce fuels and promote healthy conifer and shrub growth, including 234 acres of burning in the West Fork Yaak Inventoried Roadless Area (IRA), 900 acres of non-commercial thinning, and increases in grizzly bear core habitat in BMU 15 from 47% to 53% by earth berming several road segments that are currently gated. Approximately 1 mile of temporary road would be built and recontoured after use.

Alternative D includes the modifications of Alternative C and also addresses the old growth issue. Alternative D includes stand replacement timber harvest on 317 acres to produce 13.8 MMBF of timber, 328 acres of mechanical fuels reduction treatments, 818 acres of prescribed burning to reduce fuels and promote healthy conifer and shrub growth, including 234 acres of burning in the West Fork Yaak Inventoried Roadless Area (IRA), 900 acres of non-commercial thinning, and increases in grizzly bear core habitat in BMU 15 from 47% to 53% by earth berming several road segments that are currently gated. Approximately 1 mile of temporary

road would be built and recontoured after use. Alternative D is the agency's preferred alternative.

Comments:

Alternatives

1. The EPA commends the Kootenai Forest and Three Rivers District for clear presentation of project information to facilitate public understanding, and meet the intent of NEPA to involve and inform the public and disclose effects. We are pleased with several aspects of the presentation of information in the Garver EIS including:

- including photos to help illustrate the vegetative treatments and conditions that need to be addressed to improve management in fire dependent ecosystems (pages 1-4, 1-5, Appendix B).

- providing valuable appendices with extensive information to promote project understanding and comparison of alternatives (e.g., Appendix A-Timber Harvest Treatments Summary; Appendix D-pictorial view of treatments; Appendix C-Fuels Reduction Treatments Summary; Appendix D-Noxious Weed Mitigation Plan; Appendix E-Access Management Plan; Appendix F-Monitoring Plan; and clear color coded Maps).

2. We are also pleased with the planning and design of vegetation management alternatives to avoid or minimize adverse environmental effects including:

- avoiding timber harvest and fuels treatments in the Slim Creek, most of Lap Creek and Hensley Creek drainages because these drainages have not recovered sufficiently hydrologically (page 1-1).

- avoiding commercial harvest in areas designated as “unsuitable” for timber harvest in the Forest Plan, including designated old growth (page 1-1), and avoiding harvest in Inventoried Roadless Areas (IRA), and including reforestation and wildlife browse plantings (page 2-9).

- being responsive to the concerns of adjacent landowners and other residents with concerns about harvests and fuel treatments in wet areas (i.e., units E 37, 38, 39) by dropping such wet areas from consideration for harvest (page 2-5).

- avoiding construction of permanent roads and minimizing construction of new temporary roads (approximately 1 mile of temporary roads are proposed), and locating temporary roads away from streams and riparian areas and avoiding the need for stream crossings. This is important since roads are often significant factors that impact aquatic and terrestrial resources, and affect water quality, stream and wetland processes, and fish

and wildlife.

- developing skidding plans to minimize detrimental disturbance (skid trails will be recontoured, waterbarred and seeded (page 2-13)). The EPA notes that it is important that erosion control be kept current with log skidding activities.

3. The EPA fully supports the proposals (page 2-8) to improve road drainage and BMPs on 50 miles of existing roads to reduce long term sediment delivery (e.g., installation of drain dips and culverts, catchbasins, stabilizing cut and fill slopes, dust abatement, resurfacing). Improvements in road drainage, and reductions in sediment delivery from roads are important components for improving aquatic health in project area streams. EPA supports inspections and evaluations to identify existing road conditions that cause or contribute to nonpoint source pollution and stream impairment, and the conduct of necessary road maintenance to correct deficiencies.

EPA’s specific areas of concern regarding roads include factors in addition to road density, such as the number of road stream crossings; road drainage and surface erosion, adequate numbers of ditch relief culverts to avoid drainage running on or along roads; interception and routing sediment to streams; culvert sizing and potential for washout; culvert allowance of fish migration and effects on stream structure; seasonal and spawning habitats; large organic material supplies; and riparian habitats. Culverts should be properly sized to handle flood events, and pass bedload and woody debris, and should be properly aligned with the stream channel. Undersized culverts should be replaced and culverts which are not properly aligned or which present fish passage problems and/or serve as barriers to fish migration should be adjusted. Bridges or open bottom culverts that simulate stream grade and substrate and that provide adequate capacity for flood flows, bedload and woody debris are recommended to minimize adverse fisheries effects of road stream crossings. It is also important to maintain crowns on roads and to provide adequate dips and waterbars to promote water drainage off roads.

Blading of unpaved roads in a manner that contributes to road erosion and sediment transport to streams and wetlands should be avoided. It is important that management direction assures that road maintenance (e.g., blading) be focused on reducing road surface erosion and sediment delivery from roads to area streams. Practices of expediently sidecasting graded material over the shoulder and widening shoulders can have an adverse effects upon streams, wetlands, and riparian areas that are adjacent to roads.

For your information Forest Service Region 1 provides training for operators of road graders regarding conduct of road maintenance in a manner that protects streams and wetlands, (i.e., Gravel Roads Back to the Basics). If there are road maintenance needs on unpaved roads adjacent to streams and wetlands we encourage utilization of such training (contact Donna Sheehy, Transportation Management Engineer, at 406-329-3312).

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Response to Comment #7: New culvert installations in stream channels would be reviewed by the district hydrologist and fish biologist to ensure that the installations protect stream channels, provide adequate hydrologic capacity, and meet INFS requirements. BMP work in the West Fork Yaak watershed would include additional ditch and road surface cross drainage to minimize water routing.

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Response to Comment #8: District personnel and equipment operators are conscious of stream health and recognize the importance of reducing soil erosion and sediment delivery from roads to streams. It is common now that the operators associated with timber sale purchasers on the district have completed BMP training, including training to ensure careful blading of roads.

4. The Access Management Plan (Appendix E) showing proposed road closure actions, timing and reasoning is informative and helpful for project understanding. Will any roads be permanently decommissioned or obliterated in the Garver project area? Reductions in road density have been associated with improved aquatic health and wildlife habitat. For example, bull trout are exceptionally sensitive to the direct, indirect, and cumulative effects of roads. The USFWS in its 1998 Bull Trout Interim Conservation Guidance identified the importance of road densities for bull trout conservation, showing general exclusion of bull trout in watersheds with high road densities (e.g., over 1.7 mi/mi² of roads), and showing bull trout strongholds to have low road densities (e.g., an average 0.45 mi/mi² of roads). (We point this out to demonstrate the general connection between low road density and good fish habitat, although we understand bull trout do not occupy waters in the Garver analysis area due to inability to pass Yaak River falls (page 3-86))
5. We understand that roads will be closed with earth barriers for grizzly bear protection. Are provisions proposed to ensure that road drainage and stream crossings for bermed roads will be maintained? Will culverts be removed or enlarged on bermed roads to reduce need for maintenance at stream crossings? Will stream crossings or drainage ways be restored? Can road maintenance that may be needed still be performed after earth barriers are constructed?
6. Table 3-35 (page 3-109) showing proposed acres of harvest by different logging methods and disturbance levels for each alternative is very informative. It would be helpful if this type of information were included in the Chapter 2 Alternatives descriptions to facilitate reader understanding of alternatives and comparison of alternatives. Presently only EIS readers interested in noxious weed issues may see this informative comparison of alternatives.
7. In regard to slash treatment it is stated (page 2-9) that, “woody debris would be gathered and piled mechanically using an excavator” (i.e., for 51% to 54% of total slash treatment). We are pleased that requirements for retention of small and coarse woody debris to provide for erosion control and maintenance of soil nutrients and long term soil productivity (i.e., 5-9 tons of CWD on units 41 42b, 44, 46, 47, 49, 49a, 50, 50a, 50b, 50c, 51, 52, 52a, 53, 54, 56, 56a, 59, 60; 10-15 tons of CWD on units 4, 8, 12, 15, 31, 33a, 33b, 34, 45, 60; 15-30 tons of CWD on units 1, 3, 7, 11, 14, 15a, 17, 18, 27, 32, 33).

We suggest that the slash disposal method discussions at the bottom of page 3-115 be referenced in the Chapter 2 discussion of slash treatment, so this information is evident to the reader of the Chapter 2 section on slash treatment.

←9 **Response to Comment #9:** The Garver DEIS does not propose to decommission or obliterate any roads.

←10 **Response to Comment #10:** BMP work will be completed on roads in the West Fork Yaak River used for haul prior to berming them for core. All roads that would be bermed for grizzly bear protection can still be maintained or repaired for watershed protection if the activity is approved by U.S. Fish and Wildlife Service. These roads would not necessarily be treated before berms are installed for the Garver project. Work on closed roads is prioritized at the District level based on watershed and fisheries concerns. The current focus for road-related watershed work is in O’Brien, Callahan, NF Keeler, the East Fork Yaak, and the South Fork Yaak. These watersheds have been prioritized based on fisheries, road problems, impacts of recent wildfires and/or management history. Road related sediment sources in the West Fork Yaak watershed will be identified by the Yaak Headwaters Group during the next two years. This information will be used in conjunction with the Yaak TMDL assessment to establish restoration priorities.

←11 **Response to Comment #11:** Thank you. In our next analysis we will incorporate this suggestion.

Water Resources

8. We are generally concerned when tractor timber harvests are proposed, since tractor harvests have greater potential for greater ground disturbance and erosion and sediment production. Sediment production is likely to be generated during tractor harvests and associated activities such as road construction and logging road use during wet periods and spring breakup. However, we are pleased that significant amounts of less disturbing logging methods such as helicopter (824 acres, 38%) and skyline (54 acres, 2%) yarding and winter logging (247 acres, 12%) are also proposed (page 3-109). We understand that tractor harvests would be limited to areas with less than 35% slope. We are also pleased that Inland Native Fish Strategy (INFS) standards and guidelines including RHCA's would be used with no timber harvest within RHCA's. We also understand that areas of recent or historic landslides, slumping and debris torrents are considered landslide prone RHCA's that will be avoided. These measures should reduce sediment production and delivery to streams.

9. It is stated that the West Fork Yaak River is the only stream within the project area that is still 303(d) listed (page 3-121). It should be clarified that the MDEQ and EPA are under a Court Ordered schedule to prepare TMDLs for all waterbodies on the 1996 list. Removal of a stream that was on the year 1996 303(d) list due to lack of sufficient and credible data does not relieve the agencies of this TMDL development responsibility, although MDEQ and EPA are appealing to the Courts to get permission to use more up-to-date 303(d) listing information for TMDL preparation. We note that the MDEQ's 1996 303(d) list included the Yaak River, Lap Creek, Pete Creek, and the West Fork Yaak River (and Spread Creek and Seventeen Mile Creek although these waterbodies do not appear to be in the Garver analysis area). Stream segments designated as "water quality impaired" and/or "threatened" listed on State 303(d) lists require development of a Total Maximum Daily Load (TMDL). A TMDL:

Identifies the maximum load of a pollutant (e.g., sediment, nutrient, metal) a waterbody is able to assimilate and fully support its designated uses; allocates portions of the maximum load to all sources; identifies the necessary controls that may be implemented voluntarily or through regulatory means; and describes a monitoring plan and associated corrective feedback loop to insure that uses are fully supported; Or can also be viewed as, the total amount of pollutant that a water body may receive from all sources without exceeding WQS; or Or may be viewed as, a reduction in pollutant loading that results in meeting WQS.

Montana's approach is to include TMDLs as one component of comprehensive Water Quality Restoration Plans. TMDLs/Water Quality Restoration Plans contain seven principal components:

←12 **Response to Comment #12:** The DEIS analysis on sediment delivery to streams concludes that application of BMPs and RHCA buffers makes direct sediment delivery from a harvest unit to a stream unlikely. While there may be some sediment produced from road-related activities in the short term, long-term sediment production at the stream crossings in the West Fork will be reduced by implementation of the committed road BMP work." (See DEIS pgs. 3-133 thru 3-134.)

←13 **Response to Comment #13:** Please see FEIS Appendix K where this is clarified to read, "Although the State of Montana removed a number of streams from the list between 1996 and 2000, the EPA and State of Montana are now under a Court Order that requires TMDLs for streams on the 1996 list. As a result Lap and Pete Creeks, which were removed from the list between 1996 and 2000, will be reassessed. The target date for reassessment and preparation of TMDLs for all impaired stream segments in the Yaak watershed is December 31, 2004." The Water Resources analysis on DEIS pgs. 3-120 thru 3-136 includes all waterbodies on the 1996 list. The cumulative effects analysis concludes that the action alternatives would not change the cumulative peak flow increase that exists in the West Fork Yaak, Pete Creek and the Main Yaak River; and the amount of sediment added would not be measurable at the scale of the West Fork, Pete Creek, or Main Yaak (DEIS pg. 3-135). There would be no measurable change in ECA in Lap Creek (DEIS pg. 3-132) and there are no haul road stream crossings in Lap Creek (Table 3-45).

1. Watershed characterization (hydrology, climate, vegetation, land use, ownership, etc.)
2. Description of impairments and applicable water quality standards.
3. Pollutant source assessment and estimate of existing pollutant loads.
4. Water quality goals, restoration targets (including TMDLs) and load allocations.
5. Restoration strategy
6. Monitoring Strategy
7. Public involvement (30 day public comment period, informational meetings, etc.)

The load allocations and targets established by TMDLs/Water Quality Restoration Plans inform land managers how much sediment, nutrient or other pollutant discharge may be too much (i.e., prevent support of beneficial uses). A Water Quality Restoration Plan (WQRP) provides a means to track the health of a stream over time. If a WQRP has not restored beneficial uses within five years, the Montana DEQ conducts an assessment to determine if: 1) the implementation of new and improved best management practices is necessary; 2) water quality is improving but more time is needed to comply with water quality standards; or 3) revisions to the plan will be necessary to meet WQS.

It is important that activities carried out in the drainages of 303(d) listed streams avoid further degradation of the listed streams and are consistent with TMDLs and associated water quality restoration plans. We are pleased that implementation of BMPs on the Garver project such as reducing ground disturbance, recontouring excavated areas, installation of waterbars, seeding disturbed areas, improving road drainage, cleaning catchbasins and ditches, replacing and adding culverts, installing drain dips, resurfacing roads, stabilizing cut and fill slopes, and use of RHCAs would decrease sediment delivery (pages 3-133, 3-134). We are pleased that it is stated that short term sediment increases would be minor and of short duration, and there would be no measurable effects in fish bearing reaches (page 3-136).

The proposed Garver project activities appear consistent with long term water quality restoration (e.g., 50 miles or road rehabilitation). We do recommend, however, that proposed implementation activities and BMPs, including improvement/restoration activities, be discussed with MDEQ and any local watershed groups that may be involved in TMDLs and watershed restoration plans for the impaired streams to assure MDEQ concurrence on TDML consistency (e.g., contact Robert Ray of MDEQ in Helena at 444-5319).

10. We are pleased that the Forest Service intends to develop working relationships and projects to enhance fish populations, carry out fish sampling, establish monitoring stations, work with Canada to enhance the West Fork Yaak River, and encourage replacement of the culvert on Lap Creek on Yaak Highway #92, which is under County jurisdiction. As you know the West Fork Yaak River is listed by the State as an impaired waterbody under the Section 303(d) of the Clean Water Act and has TMDL preparation requirements (page 2-5). The MDEQ and EPA will be working with the Kootenai

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Response to Comment #14: We have involved the MDEQ throughout the Garver project development. MDEQ was mailed scoping notices for the original proposed action (PF Doc. 33). Robert Ray, Watershed Management Section Supervisor (including oversight of the TMDL Program) of the MDEQ, and Jim Bauermeister and Mark Kelley, both of MDEQ, participated in the 7/18/2002 field trip to the West Fork Yaak River area (PF Doc. 68). Following release of the DEIS, Jim Bauermeister of MDEQ was mailed a copy of the DEIS along with a letter describing project design features and documenting that “Beneficial uses for the West Fork Yaak River, Pete Creek, and Lap creek would be maintained at its current level under all alternatives.” (PF Doc. 73). In a DEIS response letter dated December 2, 2002, Carol Mackin of MDEQ requested that we implement BMPs as part of this project. BMP work is committed to in the West Fork Yaak drainage and will be implemented in other drainages as funding permits based on fisheries priorities (see ROD Appendix 2 and ROD Appendix 1-18). The district will send EPA and MDEQ a copy of the road packages, which describe BMP work, upon their request. Water quality monitoring (ROD Appendix 3) includes BMP Implementation and Effectiveness Reviews. These steps will document the results of the protective measures employed in this project and serve as ongoing monitoring of their effectiveness in protecting water quality and downstream beneficial uses. The Forest Plan Monitoring Report for FY 2001 finds, “Implementation evaluations met the requirements almost 96% of the time. Effectiveness evaluations met the requirements of acceptable or better 94% of the time.” (KNF September 2002).

National Forest in regard to development of the TMDL for the Yaak TMDL planning area.

The EPA is aware of and concerned about large clearcuts in riparian areas of the West Fork Yaak River in British Columbia (page 3-2). As development of the Yaak TMDL progresses and sources of water quality impairment in the West Fork Yaak River are further investigated, we hope to work with the EPA Office of International Activities to evaluate sources of water quality impairment in Canada that affect U.S. waters. The EPA appreciates the assistance and cooperation of the Kootenai National Forest in development of TMDLs for the Yaak TMDL planning area.

11. We are pleased that all wetlands are included in RHCAs (page 3-136) and that no timber harvest, road construction, or heavy equipment operation would be allowed in wetlands. EPA considers the protection, improvement, and restoration of wetlands and riparian areas to be a high priority, since wetlands and riparian areas increase landscape and species diversity, and are important for protection of water quality. Possible impacts on wetlands and riparian areas include damage or improvement to: water quality, habitat for aquatic and terrestrial life, channel & bank stability, flood storage, ground water recharge and discharge, sources of primary production, and recreation and aesthetics.

Executive Order 11990 requires that all Federal Agencies protect wetlands. In addition national wetlands policy has established an interim goal of **No Overall Net Loss of the Nation's remaining wetlands**, and a long-term goal of increasing quantity and quality of the Nation's wetlands resource base (see <http://www.usace.army.mil/rc/reg/sadmin3.htm> and scroll down and click on "Presidential Wetland Policy of 1993"). Wetland impacts should be avoided, and/or minimized, to the maximum extent practicable, and then unavoidable impacts should be compensated for through wetland restoration, creation, or enhancement.

12. We are pleased that a Monitoring Plan is included in Appendix F. The extent of proposed water quality monitoring appears to be performance of inspections during the spring for monitoring effectiveness of BMPs at dispersing water and decreasing erosion, and verifying application of RHCAs. We are pleased that BMP inspections are proposed, but it is not clear if such inspections will document or validate that "no measurable effects" occur and that State Water Quality Standards are met, and, and if inspections provide adequate feedback mechanisms to initiate additional measures if needed to meet State Water Quality Standards.

We generally recommend that EIS's include a discussion of how the three types of monitoring (implementation, effectiveness and validation monitoring) are incorporated into proposed activities, and describe relationships between project monitoring activities and the forest-wide monitoring plan to show the effectiveness of BMPs and validate compliance with Water Quality Standards. We realize that monitoring resources are

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Response to Comment #15: We agree that the protection, improvement, and restoration of wetlands and riparian areas is a high priority. This project adheres to Executive Order 11990 as there will be no long-term impacts to wetlands or riparian areas as discussed in the DEIS on pages 3-3-134 thru 3-135.

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Response to Comment #16: We agree that long term monitoring of stream channel conditions is important to documenting current condition and trends in condition. We are currently working with EPA in reviewing past monitoring results, and developing a future monitoring plan for these watersheds as part of the Yaak basin TMDL development, and are setting up six permanent monitoring reaches in the Garver project area this summer. The Yaak Headwaters group will be conducting a sediment source survey in the West Fork Yaak watershed beginning this summer.

limited, and the proposed Garver project has been well planned with attention toward water quality protection and restoration. However, we encourage some level of aquatic effectiveness and validation monitoring such as establishment of channel cross sections, and monitoring of aquatic habitat (pool frequency, w/d ratios, bank stability and LWD) to help document BMP effectiveness, and validate Water Quality Standards compliance wherever possible. Monitoring would also help evaluate and document aquatic recovery associated with proposed road rehabilitation and to assist in TDML development.

The EPA often recommends consideration of a biological component, such as rapid bioassessments using macroinvertebrates, in a monitoring program. Monitoring of the aquatic biological community is desirable since the aquatic community integrates the effects of pollutant stressors over time and, thus, provides a more holistic measure of impacts than grab samples of turbidity and suspended sediment. We encourage use of the following reference materials in designing and disclosing an aquatic monitoring program:

Monitoring Guidelines to Evaluate Effects of Forestry Activities in the Pacific Northwest and Alaska; Lee H. McDonald, Alan W. Smart and Robert C. Wissmar; May 1991; EPA/910/9-91-001;

“Aquatic Habitat Indicators and Their Application to Water Quality Objectives Within the Clean Water Act, Stephen B. Bauer and Stephen C. Ralph, 1999, EPA-910-R99-014. (This publication is available on-line at, www.epa.gov/region10 ,Click on Information Resources; Publications; Water Pollution; and then document title, or go to website, www.pocketwater.com/documents/ahi.pdf .

Aquatic and Riparian Effectiveness Monitoring Plan for the Northwest Forest Plan, Gordon H. Reeves, David B. Hohler, David P. Larsen, David E. Busch, Kim Kratz, Keith Reynolds, Karl F. Stein, Thomas Atzet, Polly Hays, and Michael Tehan, February 2001. Available on-line at, <http://www.reo.gov/monitoring/watershed/aremp-compile.htm>

Western Pilot Study: Field Operations Manual for Wadeable Streams; Environmental Monitoring and Assessment Program Protocols, Edited by David V. Peck, James M. Lazorchak, and Donald J. Klemm, April 2001. available at, <http://www.epa.gov/emap/html/pubs/docs/groupdocs/surfwatr/field/ewwsm01.pdf>

Rapid Bioassessment Protocols for use in Streams and Rivers; James A. Plafkin, May 1989, EPA/444/4-89-001.

Montana Forestry BMP's; Extension Publications; July 1991, Montana State University; EB0096.

“Montana Stream Management Guide: for Landowners, Managers, and Stream Users”, Montana Dept. Of Environmental Quality; December 1995.

←17 **Response to Comment #17:** Please see response to your Comment #3.

←18 **Response to Comment #18:** Thank you for providing citations for these materials.

Air Quality

13. The preferred alternative, Alternative D, includes slash burning (excavator pile and burn, burn landing piles and underburning on 2,037 acres) and maintenance burning for fuels reduction on 585 acres (page 2-20 and 2-21) that may impact air quality. The EPA does not object to the judicious use of prescribed fire to control forest fuel accumulations, influence forest composition and structure, and to allow fire to play its natural role in fire dependent ecosystems and provide resource benefits, consistent with public health and environmental quality considerations. (e.g., low intensity fire in specific planned locations spread out over time so that some vegetative cover could become reestablished before the next phase of prescribed fire, with fire carried out during climatic conditions that minimize air quality impact).

The Air Quality section of the Garver DEIS (pages 3-137 to 3-148) includes good explanations of when prescribed burning will be allowed to occur, and how active burning will be managed to protect air quality. The cumulative effects section informs the public of the potential for other smoke sources such as wood-burning stoves to cumulatively impact areas while prescribed burning is occurring.

On May 15, 1998, the EPA issued the *Interim Air Quality Policy on Wildland and Prescribed Fires* to address public health and welfare impacts caused by wildland and prescribed fires that are managed to achieve resource benefits. A copy of the *Interim Air Quality Policy* can be found at: <http://www.epa.gov/ttn/oarpg/t1/memoranda/firefnl.pdf>, and a fact sheet can be found at: www.epa.gov/ttn/oarpg/t1/fact_sheets/firefnl.pdf. EPA air quality guidance can be found at www.epa.gov/ttn/oarpg/t1/pgm.html. The *Interim Air Quality Policy* was prepared in an effort to integrate the public policy goals of allowing fire to function in its natural role in maintaining healthy ecosystems and protecting public health and welfare by mitigating the impacts of air pollutant emissions on air quality and visibility. The *Interim Air Quality Policy* calls on States to develop a Smoke Management Program and for the Federal Land Managers to participate in the State and Tribal smoke management programs.

We are pleased that all prescribed burning within the Garver analysis area will comply with State Implementation Plan and the Smoke Management Plan (page 3-137). Smoke management programs depend on favorable meteorological conditions to disperse smoke. However, despite best efforts to predict favorable conditions the weather can change causing smoke not to disperse as intended. Therefore, an EIS should acknowledge that there may be unintentional ground-level impacts from smoke and never presume to the public that there will be no air quality impacts. It may also be of interest to the public to display the website for the Montana/Idaho State Airshed Group, <http://www.smokemu.org>.

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Response to Comment #19: Thank you for your support. The district will continue to implement prescribed burning in accordance with the state Prevention of Significant Deterioration program and State Implementation Plan. Tribal representatives were contacted regarding this project, and expressed no air quality concerns.

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Response to Comment #20: DEIS pg. 3-146 through 3-147 discloses possible air quality impacts to the public. “Smoke from prescribed burning will likely collect in nearby valley bottom areas for a short time following burning. Proximity to the burn and wind direction would determine how much individual residents would be affected. While ignition is taking place, residents located downwind or adjacent to the burn area would experience drift smoke due to prevailing winds. For approximately 1-3 days following the lower elevation burns, residual smoke has the tendency to settle close to the ground during the nighttime hours where it would remain until it lifts as surface heating begins near mid-morning the following day. Smoke from burning stumps and large diameter logs may be present at lower elevations for up to 1-2 weeks. Mopup and patrol crews would extinguish some of these smoldering stumps and logs to reduce the amount of smoke affecting adjacent residents and to help prevent escaped fires.” The Montana/Idaho Airshed Group website address <http://www.smokemu.org> is noted and will be added to future EISs.

- 14. On page 3-145, first paragraph, we recommend that additional information on the 8.8% of the daily PM-10 concentration for Kalispell be provided. Is the distance from the prescribed fire known, and what were the meteorological conditions that caused the PM-10 to occur in Kalispell? Did the fire last longer than one day?
- 15. On page 3-137 it states that particulate monitors are located in Troy, Libby, Kalispell, Whitefish, Thompson Falls, Missoula, and Helena. It may be helpful for some EIS readers to include a larger version of the General Vicinity map with the locations of these particulate monitoring sites relative to the Garver project area. In addition, a map showing the locations of Class I areas such as Glacier National Park and the Bob Marshall Wilderness relative to the project area would be beneficial.

Noxious Weeds

- 16. Thank you for including a good discussion of noxious weeds (pages 3-104 to 3-111) and a Noxious Weed Mitigation Plan (Appendix D). Noxious weeds can out-compete native plants and produce a monoculture that has little or no plant species diversity or benefit to wildlife and are a threat to biodiversity. Noxious weeds tend to gain a foothold where there is disturbance in the ecosystem, such as road building, fire, or logging activities.

While EPA fully supports control of noxious weed infestations, we also note that weed control chemicals can be toxic and have the potential to be transported to surface or ground water following application. EPA supports integrated weed management (e.g., effective mix of cultural, education and prevention, biological, mechanical, chemical management, etc.), and we encourage prioritization of management techniques that focus on non-chemical treatments first, with reliance on chemicals being the last resort.

It is important that the water contamination concerns of herbicide usage be fully evaluated and mitigated. All efforts should be made to avoid movement or transport of herbicides into surface waters that could adversely affect fisheries or other water uses. Herbicide applicators should be advised of the potential for runoff of herbicides at toxic concentrations into the streams. Herbicide drift into streams and wetlands could adversely affect aquatic life and wetland functions such as food chain support and habitat for wetland species.

The applicators should take precautions during spraying (e.g., applying herbicide only after careful review of weather reports to ensure minimal likelihood of rainfall within 24 hours of spraying; special precautions adjacent to the stream to reduce runoff potential; etc.). It should be unequivocally stated that no herbicide spraying will occur in streams and wetlands or other aquatic areas (seeps, springs, etc.). Streams and wetlands in any area to be sprayed be identified and flagged on the ground to assure that herbicide applicators are aware of the location of wetlands, and thus, can avoid spraying in or near wetlands.

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Response to Comment #21: The information in the DEIS is from two reports: “Chemical mass balance receptor modeling for Columbia Falls, Montana” July 1991 Miller, Patterson, Wade and Lytle and “PM-10 chemical mass balance study for Kalispell, Montana” 1988 Raisch and Jeffery. As stated in the DEIS pg. 3-147, “The levels of smoke anticipated from the Action Alternatives is not expected to be a health concern, with the exception of people living directly adjacent to the burns who are severely sensitive to smoke. The District will contact all residents adjacent to areas proposed for burning...”.

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Response to Comment #22: Thank you for your suggestion. Those interested in monitoring locations or a map display of distances from Class I airsheds may contact the district office for more information. As explained in the DEIS at pg. 3-142, Glacier National Park and the Cabinet Mountain Wilderness would not be expected to be impacted by this project due to distance from the project area and wind patterns.

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Response to Comment #23: The district agrees that non-chemical agents can be effective in reducing the spread of weeds in some instances. The district employs methods for weed reduction that include biological control, herbicide use, and education.

←24

Response to Comment #24: Safe application measures for herbicide control of noxious weeds are prescribed in the Kootenai National Forest Herbicide Control EA of 1997 and on the label of each herbicide. The label of the herbicide prescribes the methods by which herbicides may be applied and violation of label directions constitutes a federal offense. All herbicide application would follow label direction and the safe application measures listed in the Herbicide Control EA, which include protection of wetlands and streams. Applicators are certified. The certification process includes instruction concerning application of herbicides.

We are pleased that all spraying will be done by licensed applicators and will follow the safe application methods and practices in the 1997 Herbicide Weed Control Environmental Assessment (page 3-96, 3-110). Some ideas we have to control and manage noxious weed invasions follow.

Weed seeds can be carried from a source area by the wind, wildlife or pack animals, on equipment tires and tracks, by water, and on the boots of hikers. Care should be taken to implement control procedures in all source areas to avoid spread to unaffected areas. Measures for preventing spread from source areas to uninfested areas include:

- ▶ Ensure that equipment tracks and tires are cleaned prior to transportation to an uninfested site.
- ▶ Focus control efforts at trail heads and transportation corridors to prevent tracking of seed into uninfested areas.
- ▶ Attempt to control the spread from one watershed to another to reduce water as a transport vector.
- ▶ If a localized infestation exists and control is not a viable option, consider rerouting trails or roads around the infestation to reduce available vectors for spread.
- ▶ Establish an education program for industrial and recreational users and encourage voluntary assistance in both prevention and control activities.
- ▶ Reseed disturbed sites as soon as possible following disturbance.

Noxious weeds can be spread by vehicles, and vehicle restrictions can be considered to reduce potential for reinfestation of the area by noxious weeds after treatment. Also, if sufficient vegetation is removed by ground disturbing activities or prescribed burning it may warrant revegetation efforts. Revegetation (reseeding with native grass mix) should be considered to seed any site within the control area where the vegetation density is low enough to allow reinfestation or introduction of other noxious weeds, or erosion. The goal of the seeding program should be to establish the sustainability of the area. Where no native, rapid cover seed source exists, we recommend using a grass mixture that does not include aggressive grasses such as smooth brome, thereby allowing native species to eventually prevail. Mr. Phil Johnson, Botanist, Montana Dept. of Transportation, in Helena at 444-7657, may be able to provide guidance on revegetation with native grasses.

The effect of burning on the potential stimulation of noxious weeds may need to be evaluated in burn units. Prescribed fire has the potential to stimulate weed growth (e.g., Dalmatian toadflax or leafy spurge), and can destroy insects planted for biological weed

←**25** **Response to Comment #25:** Limiting or prevention of spread of noxious weeds is one of the cornerstones of noxious weed management on the Kootenai National Forest, and the cheapest weed management possible. Certified weed free forage and straw are required on all National Forest System lands in Region 1.

←**26** **Response to Comment #26:** Thank you for this information. The KNF does use native grass seed in many cases; however, in some cases, non-natives are used because their aggressive nature has been found to limit the invasion of noxious weeds.

control.

We also note that hay can be a source of noxious weed seed. Hay/straw is used as mulch to slow erosion and encourage seed germination, and used to feed horses in hunting and recreation camps, and as wildlife feed during harsh winters. The Federal Noxious Weed Act of 1974 prohibits the interstate transport of noxious weeds or weed parts, such as seed. Montana has a weed free certification program for hay. Forest Service staff should contact the County Extension Agent regarding this program. The Forest Service may want to discuss the option of requiring use of certified weed free hay in permits or projects. Cattle that are released on grazing allotments or horses used on public lands can transport undigested weed seed and spread it in their manure. Another option for preventing the introduction of noxious weeds is to require cattle and horses, especially those coming from areas with noxious weeds, to be penned and fed weed free hay for several days prior to being released on public lands.

Wildlife

17. The detailed discussion of old growth issues is informative and demonstrates that site-specific consideration of old growth attributes was utilized in planning harvest and vegetative treatments in the preferred alternative, although we realize that the preferred alternative proposes regeneration harvest in 19 acres of unit 17 that is currently functioning as old growth (pages 3-37 to 3-42, 3-79). We are pleased that implementation of all the alternatives meet Forest Plan standards for cavity habitat (page 3-79).
18. We are also pleased that all alternatives fully comply with open road density and core habitat standards for protection of the threatened grizzly bear (page 3-56), and that the project is not likely to adversely affect the grizzly bear, and that all alternatives would maintain habitat and denning sites for the threatened gray wolf and Canada lynx, and that the project is not likely to adversely affect the gray wolf and Canada lynx, and is not likely to adversely affect bull trout.

Roadless

19. We are pleased that no timber harvest is proposed within the West Fork Yaak IRA. We understand that 214 acres of the 234 acre Dusty Peak maintenance burn will occur in the IRA and will be carried out with helicopter aerial ignition. The EPA supports efforts to reintroduce fire to fire dependent ecosystems, including roadless areas, so that fire can play its natural role and provide resource benefits, consistent with public health and environmental quality considerations.

General

20. On page 3-19, Table 3-10 is referenced in regard to the more than 9,000 acres in the analysis area with forest health concerns. Table 3-10 provides harvest history, and it appears that Table 3-9, General Insect and Disease Conditions, should be more appropriately referenced.
21. There is a small inconsistency in regard to temporary road construction. On page 2-8 (and page 3-116) it is stated that ~~five~~ temporary roads totaling 0.99 miles would be needed, whereas on page 3-95 it states that ~~four~~ temporary road totaling 0.91 miles are proposed. This should be corrected to assure consistency.

←**27** **Response to Comment #27:** Your comment is correct. The wrong table reference was used in this case. Thank you for pointing this out. Please see FEIS Appendix K for this correction.

←**28** **Response to Comment #28:** The correct number of temporary roads for Alternatives B-D is five temporary roads totaling .97 miles. The selected alternative requires five temporary roads totaling 0.83 miles. Please see FEIS Appendix K for this correction.

April 1, 2003

Liz Sedler
Alliance for the Wild Rockies
PO Box 1203
Sandpoint, ID 83864

Mike Balboni
District Ranger.TRRD
1437 N. Hwy 2
Troy, MT 59935

RE: Comments on Garver Project Proposal to Increase Grizzly bear Core Area to 55% in BMU 15

Dear Mike,

We appreciate your willingness to consider increasing core to 55% in BMU 15 based on public input. We are, of course, in favor of increasing security for grizzly bears. However, based on your response to my questions via email, it appears you are unwilling to ensure the long term stability of new core areas unless forced to by the impending Forest Plan Amendment for Grizzly Bear Access Management.

“The grizzly plan amendment would require that all core be in place for 10 years prior to any changes or movement out of core. If this gets signed and implemented we would follow that direction. Right now we have nothing directing us to keep core in place for any specific period of time.” (from your email dated 3/31/03)

←1

Response to Comment #1: See response to comments #11 and #12 below.

According to grizzly bear scientists, core provides minimal benefits to bears if it is not maintained for a *minimum of ten years*. Therefore the proposed increase to 55%, while having the appearance of a decidedly positive benefit, in reality only gets part of the way there. The same holds true for the 3% increase from 47% to 50% that is built into the Garver Project. We ask that you commit to keeping all newly created core in place for a minimum of ten years, as directed by the science of grizzly bear biology.

Regarding the Garver lookout road that is proposed to be opened to compensate for closing part of roads 276 and 5840: while we appreciate the fact that it will not be open during the spring season (as indicated in your email reply) we would still ask that it remain gated unless access is needed by those renting the lookout.

We have concerns regarding the semi-permanent closure of roads without first

removing the culverts at stream crossings. One assumes that the barriers will stay in place, if not for ten years, at least 2 to 5 years, during which time the roads are not likely to be regularly maintained or monitored by district personnel. This increases the risk of culvert failure and subsequent watershed damage. Ideally roads that are bermed to create core would be obliterated as well.

Comments on the Garver Project DEIS

The issues raised in past comments on timber sales (which we hereby incorporate by reference) in the Cabinet-Yaak Recovery Zone including Clay Beaver, Kelsey Beaver, and Callahan, are applicable to the action alternatives in the Garver DEIS.

Implementation of any of the action alternatives proposed in the DEIS would be in violation of NEPA, sections 7 and 9 of the ESA, the Settlement Agreement and Stipulation for Order for AWR v. Bosworth, and NFMA due to impacts on the Cabinet-Yaak grizzly bear population.

The Cumulative Effects Analysis for the Grizzly Bear in the Garver DEIS fails to consider the very real harm to grizzly bears resulting from displacement due to the cumulative effects of the Garver project combined with multiple past, current and foreseeable timber sales that are concurrent or consecutive in BMU 15 and other BMUs in the Cabinet-Yaak Recovery Area.¹ The DEIS acknowledges that the “potential exists to displace grizzly bears to core areas or areas not affected by the activities,” but discounts its importance by stating that “[g]rizzly bears are wide-ranging species that use a variety of habitats and can move from one area to another easily.” DEIS at 3-56.

Displacement from preferred habitat impairs ability to reproduce successfully, increases the risk of mortality and therefore constitutes harm. Displacement from preferred, familiar habitat is a “direct” affect and must be considered.

Currently approximately 32% of BMU 15 exceeds a total motorized road density (TMRD) of 2mi/sq mi.. (pers. conv., Joni Manning) In order to avoid “harm” or “take” of grizzly bears in the Cabinet-Yaak Recovery Zone the TMRD >2 mi/sqmi must be = or <26% of a BMU, according to the amended Biological Opinion for the Idaho Panhandle NF. (USFWS 2001) The Garver DEIS states that an alternative that focused on “watershed restoration via road obliteration and sediment source reduction...” in the Garver area was dropped from further analysis because “the assessment phase did not reveal a critical need for road obliteration projects in this area, at this time.” (Garver DEIS at 2-5.)

Contrary to that statement, there clearly is a critical need to reduce the high density of roads in the Garver project area in order to avoid further taking of

←2

Response to Comment #2: See Response to Letter #18, Comment #10.

←3

Response to Comment #3: The letters referred to are not site-specific to the Garver proposal. The issues raised were responded to in the respective project response to comments..

←4

Response to Comment #4: We disagree. Our grizzly bear analysis (DEIS pg. 3-57 and Biological Assessment) concluded that “implementation of the activities may affect but is not likely adversely affect the grizzly bear. These alternatives would not adversely affect bear denning sites or spring range and would provide for a substantial increase of large secure core areas. ORDs in the BMU would slightly increase and HE would slightly decrease for the duration of the project. This would meet the intent of the provisions of the amended USFWS Biological Opinion and Incidental Take Statement (McMaster 1995) and the Kootenai National Forest Plan.” The USFWS concurred with this finding on May 9, 2003.

←5

Response to Comment #5: Please see the Grizzly Bear Analysis, Pages 3-51 – 3-57, for the discussion on displacement of grizzly bears and how the Garver project will improve the condition of BMU 15 for grizzly bear habitat. Also included in this discussion is a cumulative effects analysis on Page 3-56. The EIS does acknowledge the fact that bears may be temporarily displaced by the proposed activities. The statement “grizzly bears are wide-ranging species that use a variety of habitats and can move from one area to another easily” does not discount any important facts regarding the grizzly bear recovery.

←6

Response to Comment #6: Your comments concerning displacement are noted. See response to your comment #5 above.

←7

Response to Comment #7: BMU 15 currently has a Total Motorized Route Density of 32 %. The Garver project will decrease that percentage during the project to 29% and further decrease the TMRD to 25.4% post project. The road density issue was addressed in the Grizzly Bear analysis on page 3-52. The decision was made to increase core to 55% by earth berming roads as part of our ongoing commitment to grizzly bear recovery. Within the Garver BMU, the amount of open roads decreased by 18%, from 176 mi. to 145 mi., during the period of 1978 to 1987. An additional decrease of 24%, from 145 mi to 110 mi, occurred between 1987 and 2001. The quantity of closed roads within the Garver BMU increased 840%, from 15 mi. to 126 mi., during 1978 to 1987. From 1987 to 2001, the amount of closed roads decreased to 79 mi. due to road decommissioning. The result of the decommissioning was a removal of 82 mi. of road across the landscape. The total amount of roads (open and closed) existing in the BMU by 2001, was less than existed in either 1978 or 1987 (Summerfield, Johnson & Roberts, Unpublished, 2002).

grizzly bears, as well as for the purpose of watershed restoration. Berming roads without obliterating them fails to address both watershed and wildlife habitat issues.

The Stipulation for Order, dated March 26, 2001, is a court approved settlement agreement between Plaintiff Alliance for the Wild Rockies, and Defendant Forest Service in AWR v. Bosworth, CV 00-13-M-DWM. One of the stipulations agreed to by the Forest Service was that: “[p]ending completion and final approval of the IPNF and KNF Forest Plan amendments... the IPNF and KNF agree not to undertake any ground disturbing activities in grizzly bear habitat that would be likely to adversely affect grizzly bears, including habitat modification.”

←8

Response to Comment #8: The Grizzly Bear analysis determined that implementation of any of the Action Alternatives would be a **May Affect But Is Not Likely To Adversely Affect** call. Please see Page 3-57 for the determination call. The USFWS concurred with our determination for the grizzly bear on May 9, 2003.

The action alternatives proposed in the Garver DEIS are likely to adversely affect grizzly bears as a result of modification of habitat. The DEIS fails to consider the project specific and cumulative impacts of displacement of bears due to disturbance, habitat fragmentation, alteration of secure habitat boundaries, road construction and reconstruction and other activities associated with Garver and other timber sales.

←9

Response to Comment #9: We disagree. The analysis of key grizzly bear habitat components as guided by the amended USFWS Biological Opinion and Incidental Take Statement (McMaster 1995), the KNF Forest Plan, and new information contained in the “Final EIS Forest Plan for Motorized Access Management within the Selkirk and Cabinet-Yaak Grizzly Bear Recovery Zones” (Kootenai, Lolo and Idaho Panhandle National Forest, March, 2002) is presented in the DEIS pgs. 3-50 – 3-57 and in the Biological Assessment located in the project file.

The DEIS states that over 2000 acres of spring habitat will be harvested under each of the action alternatives. Although logging in spring range would be avoided during the spring bear use period (April 1 to June 15), the DEIS fails to disclose or consider the impacts of logging on the habitat itself. Will (further) fragmentation of spring habitat render it less useful or desirable for bears? What components of spring habitat that are important as food sources or security for bears in the 2000+ acres will be impacted by the logging?

←10

Response to Comment #10: In our preliminary discussions with Wayne Kasworm of the USFWS (see grizzly bear section of the wildlife project file), we talked about project activities in relation to spring habitat. Opening of these areas will rejuvenate the browse components of the landscape and create desirable foraging conditions for bears. The browse will also attract big game to the area, which is an added benefit for grizzly bears. Please see DEIS pg. 3-56 for the discussion of the direct and indirect effects of the Alternatives. Also, please see the Cumulative Effects analysis for a discussion of the past harvest history in the area.

The Garver Access Management Plan contains a list of the numerous changes in access that would occur as a result of the Garver timber sale. Some gates will be locked open to provide access for the duration of the timber sale, others will be locked shut in order to maintain the 70% HE standard. Earth berms that presumably create existing core will be removed for harvest access, while other berms will be put in place to make up for the lost core and increase it slightly from 47% to 50% during the timber sale. Some berms will be put back when the timber sale activities are completed, while others will be replaced by gates.

Road closures and secure areas are shifted every year in order to accommodate timber sale activities in the Yaak portion of the Recovery Area. The Garver project is no exception. In conjunction with Clay-Beaver, Kelsey Beaver and other past, ongoing and future timber sales in the area, the barrage of activity which displaces bears, will continue. This was not considered in the impacts analysis for grizzlies in the Garver DEIS.

The fact that core will be increased does not negate the impacts on bears due to displacement from timber sale activities. And because the Forest Service has failed to incorporate the best available science in its management of grizzly bear habitat, existing and newly created core are short term and will likely be shifted again when the next timber sale is planned in the area.

←11

Response to Comments 11 and 12: Again, the analysis of key grizzly bear habitat components is guided by the amended USFWS Biological Opinion and Incidental Take Statement (McMaster 1995), the KNF Forest Plan, and new information contained in the “Final EIS Forest Plan for Motorized Access Management within the Selkirk and Cabinet-Yaak Grizzly Bear Recovery Zones” (Kootenai, Lolo and Idaho Panhandle National Forest, March, 2002) and is presented in the DEIS pgs. 3-50 – 3-57 and in the Biological Assessment located in the project file. Under the preferred alternative, grizzly bear core would be fixed in place for 10 years minimum. The intent of establishing increased quantity and quality of core in this area is not short term but a long-term commitment to the recovery of the grizzly bear.

According to Dr. Lee Metzgar, temporal stability is extremely important to avoid harm to grizzlies: “Core areas must remain secure sufficiently long for effective bear use [expressed in positive population trends and successful reproduction] and, in the case of new core, long enough for recolonization and subsequent effective use...Grizzly bears learn to utilize habitats from their mothers and displacements may persist beyond habitat restoration for unknown lengths of time, perhaps longer than 35 years (USFWS, 2000, pp.58, 60). Similarly, USFWS (1998, p.33) states: ‘...Long-term displacementmay persist for several generations of bears before grizzly bears again utilize habitat associated with closed roads.’ Because grizzly bear generation time approximates 10 years (Harris and Allendorf, 1989), effective core must remain secure on a time scale of several decades.” Metzgar, 2001.

←12

A direct link between displacement due to high road densities, unstable secure areas and human disturbance, and high mortality and lowered reproduction rates has been established. (See USFWS, 1995a; USFWS, 1995b; USFWS, 1998; USFWS, 2001)

The Garver action alternatives will fail to conserve this imperiled grizzly population and will exacerbate the ongoing take due to cumulative impacts from other timber sales. Constant disturbance/ displacement clearly constitutes “harm” to grizzlies, in violation of Sections 7 and 9 of the ESA.

←13

Response to Comment #13: We disagree. The guidance relied on for the grizzly bear analysis as cited in the comment above defines a Bear Management Unit (BMU) as the appropriate bounds of analysis for grizzly bear analysis. The Grizzly Bear core analysis (DEIS pg. 3-53) does, however, discuss activities in BMUs 14 and 16, in addition to BMU 15. Several of the timber sales you list are small sales sold under the Kelsey-Beaver Fire Recovery EIS and are largely completed. These timber sale activities are located outside of core areas, and although they may cause short-term displacement, there are long term benefits to grizzly bear forage and big game feeding from harvest (DEIS pg. 3-56). See also responses to your comments #4-12.

Thank you for the opportunity to comment.

Regards,

Liz Sedler

¹ According to the “USFS Automated Timber Sales Accounting System - District Uncut Quantities by Document” Report dated December 31, 2002, the following timber sales are still active (have uncut timber) in the Yaak portion of the Cabinet -Yaak RZ: Cool Otis; Pine; Clay Beaver; Burnt Beaver; Black Yaak; Forty A Fire Salvage; Kelsey Fire Salvage; Upper Beaver Re-Ad. The DEIS lists recently completed sales in the Garver Area: French Mudpickens; Mud Little, Wood Rat; Waper Ridge Overstory Removal; Gator Copter , and other small sales.

LIST OF RECIPIENTS

The following is a list of recipients to whom this document and the Record of Decision has been sent. Additional copies of these documents and the Draft EIS are available upon request from the Three Rivers Ranger District in Troy, Montana.

Businesses

Owens & Hurst Lumber Co., Inc.

Local Government and Elected Officials

Lincoln County Commissioners Office, John Konzen

Federal Agencies

USDA Forest Service
USDA Office of Civil Rights
US EPA Region 8, Montana Office
US EPA, Office of Federal Activities
USDA-National Agriculture Library
USDI – Office of Environmental Policy
USDI Fish and Wildlife Service

Organizations

Alliance for the Wild Rockies
Ambience Project
Forest Conservation Council
The Ecology Center
The Lands Council
The Sierra Club
Yaak Valley Forest Council
Yaak Rod and Gun Club

State Agencies

Montana Department of Environmental Quality
Montana Department of Fish, Wildlife and Parks

NATIVE AMERICAN TRIBES AND ORGANIZATIONS

Confederated Salish and Kootenai Tribe
Kootenai Tribe of Idaho
Kootenai - Salish Tribal Liaisons

INDIVIDUALS

Bass, Rick
Battin, Sharlot B.
Bauknight, Terry
Bennett, Gail and Carolyn
Breithaupt, Kurt
Breithaupt, Paula
Brown, Ron
Campbell, Mary
Canavan, A. Basin and Winifred
Cronenwett, David
Cronick, Bobbi J.
Dannemiller, Kimberly and Bob
Finch, Wayne
Fortier, Phil
Fuqua, Pam
Glenn, Hayden
Haggerty, Keith and Suzanne
Holliday, Hugh
Janssen, Sue
Johnson, Tony
Journey, Bud
King, Robyn
Kneller, Reuben and Delma
Lance, Robert
Lauer, Trish
Linehan, Tim and Chandler, Joanne
Loney, John and Mary
Mahoney, Shane and Pat
McCabe, Molly
Mayo, Jim
Morgan, C.
Nelson, Frank
Nussbaum, Mark and Terry Lynn
Pearson, Marcia J.
Posten, Kathryn
Riedlinger, Martin
Scarabosio, Dario
Schloeder, Dr. Catherine A.
Shane, Susan
Stehlik, Linda
Wade, Lee
Wilson, Charles
Wing, George

GARVER DEIS ERRATA

This errata contains a listing of corrections to the Garver DEIS. Bold print indicates a change to be made. These corrections were reviewed by the deciding official prior to the Record of Decision. The changes were determined to not affect the conclusions presented in the DEIS.

DEIS Page	CORRECTION
2-16, 2-18, 2-20, 3-95	Tables 2-3, 2-6, and 2-9 should have displayed .97 miles of temporary road for Alternatives B, C, and D, rather than .91, .56, and .56 respectively. DEIS pg. 3-95 should have stated that " Five temporary roads with a combined length of 0.97 miles are proposed" (rather than four temporary roads with a combined length of 0.91 miles.) The temporary roads listed on DEIS pg. 2-8 show the correct mileages.
2-22	Within Table 2-13, the Alt A ECA for WF Yaak River Trib #2 should be 23 , rather than 22
3-19	Paragraph 4, "Of the more than 9,000 acres in the analysis area with moderate to high levels of forest health concerns (see Table 3-9)..."
3-39	See FEIS Appendix M corrections to affected environment analysis of old growth.
3-97	Fisheries specialist report finding for Bull Trout is: "Based on: the nature of the alternatives, the distance to the point of effect (Yaak River below Yaak Falls, and the Kootenai River), and the immeasurable effects on the water resource, the proposed activities will have no effect on the Lower Kootenai River bull trout population." The DEIS statement of a "may effect" finding was in error. (See Biological Assessment and Fisheries Specialist Report in Garver Project File.)
3-98	The "may effect" finding for the Interior Redband Trout was in error. The fisheries specialist report stated that all alternatives in the Garver project would have no impact on the redband trout . (See Fisheries Specialist Report in Garver Project File.)
3-120	Delete the following two sentences from the last paragraph on page 3-120: 1 "However, the State has found that there was insufficient scientific data to support a determination the streams were actually impaired. Between 1996 and 2000 a number of streams have been removed from the list for lack of sufficient credible data supporting the impairment listing including Slim, Hensley, Lap, and Pete Creeks." Replace with the following: Although the State of Montana removed a number of streams from the list between 1996 and 2000, the EPA and State of Montana are now under a Court Order that requires TMDLs for streams on the 1996 list. As a result Lap and Pete Creeks, which were removed from the list between 1996 and 2000, will be reassessed. The target date for reassessment and preparation of TMDLs for all impaired stream segments in the Yaak watershed is December 31, 2004.
Appendix E	The Access Management Plan Map in the DEIS indicated that the Hensley Cr. Rd. #5856 is currently restricted from the E spur to the F spur; however, this section is currently open.
M-16	The legend for the Post Project Core map should read "Core Area Post Project-53%" rather than "Core Area During Project -53%"

**DIAGNOSIS FOR SELECTION OF SILVICULTURAL SYSTEM AND HARVEST METHOD
ALTERNATIVE D MODIFIED- THE SELECTED ALTERNATIVE**

UNIT #	CAN MODIFY TO MEET TARGET?	REGENERATION/ CLEARCUT	REGENERATION/ SEEDTREE	REGENERATION/ SHELTERWOOD	UNEVEN-AGED MANAGEMENT
3	Yes, an improvement cut will meet resource objectives while maintaining options for future mgt	No, regeneration harvest is not necessary at this time and would not meet any specified project objectives	While some portions of the unit will resemble a seedtree with reserves, in general, a regeneration harvest is not necessary at this time and would not meet any specified project objectives	Intermediate harvest leaves this option open	No, promoting continual development of new age classes would be in conflict with the inherent fire regime and access mgt objectives
4	Yes, an improvement cut will meet resource objectives while maintaining options for future mgt	No, regeneration harvest is not necessary at this time and would not meet any specified project objectives	No, regeneration harvest is not necessary at this time and would not meet any specified project objectives	Intermediate harvest leaves this option open	No, promoting continual development of new age classes would be in conflict with the inherent fire regime and access mgt objectives
5	Yes, an improvement cut will meet resource objectives while maintaining options for future mgt	No, regeneration harvest is not necessary at this time and would not meet the purpose and need	No, regeneration harvest is not necessary at this time and would not meet purpose and need	Intermediate harvest leaves this option open	No, promoting continual development of new age classes would be in conflict with the inherent fire regime and access mgt objectives
7	No, due to declining health, overall insect and disease conditions and need for restoration.	No, there are available healthy overstory trees that can be a supplemental seed source, provide snag replacement, etc.	Yes, seedtree with reserves will best meet target, although minimally due to low numbers of available seed trees	No, although site protection is desirable there are insufficient number of candidate trees.	Present condition does not offer this as an immediate option. In the long term the developing stand could be managed as such if frequent entries are acceptable.
8	Yes, stand composition will permit improvement cut to meet objectives while maintaining options for future mgt	No, stand replacement is not necessary at this time and would not meet resource objectives	No, would not meet resource objectives nor is it preferred at this time due to the stand potential for improvement	Intermediate harvest leaves this option open for when a stand replacement entry is scheduled	Intermediate harvest leaves this option open
8 A	No, due to high levels of bark beetle caused LP mortality and generally limited species composition	No, there are healthy overstory trees that can be a supplemental seed source, provide snag replacement, etc. Also there is a need to maintain some hiding cover.	Yes, seedtree with reserves will best meet objectives, although minimally due to low numbers of available seed trees.	No, the number of trees required to function as a shelterwood is not available.	Present stand condition and inherent fire regime will not lend itself to uneven age management
10	Yes, stand composition will permit improvement cut to meet objectives while maintaining options for future mgt	No, there are some healthy overstory trees that can be a supplemental seed source, provide snag replacement, etc.	Yes, seedtree with reserves is silviculturally feasible, but not desirable at this time due to watershed constraints	No, due to limited number of available quality trees	Present stand condition and the characteristic fire regime will not lend itself to uneven age management
13	Yes, stand composition will permit improvement cut to meet objectives while maintaining options for future mgt	No, will not meet resource objectives stand replacement is not necessary and undesirable on this site	No, will not meet resource objectives nor is stand replacement necessary	Intermediate harvest leaves this option open but stand replacement is not necessary at this time	Intermediate harvest leaves this option open but stand replacement is not necessary at this time.

Silvicultural Diagnosis

Appendix L

UNIT #	CAN MODIFY TO MEET TARGET?	REGENERATION/ CLEARCUT	REGENERATION/ SEEDTREE	REGENERATION/ SHELTERWOOD	UNEVEN-AGED MANAGEMENT
13a	No, due to high levels of bark beetle caused LP mortality and generally limited species composition	No, there are healthy overstory trees that can be a supplemental seed source, provide snag replacement, etc. Also there is a need to maintain some hiding cover.	Yes, seedtree with reserves will best meet objectives, although minimally due to low numbers of available seed trees.	No, the number of trees required to function as a shelterwood is not available.	Present stand condition and inherent fire regime will not lend itself to uneven age management
14 14 A	No, due to the poor health and species composition present, and the need for restorative action.	Clearcutting is an option to meet restoration goals but is not necessary due to available seedtrees.	Yes, stand replacement is desirable at this time and in the long term will best meet resource objectives	No, site protection is not necessary, and there is not sufficient quality trees available.	Existing stand condition limits this option presently. In time, mgt can direct silvicultural efforts towards uneven age mgt where access and frequent entries are compatible
15a	No, due to the present stand species composition, age and forest health condition	Yes, stand condition warrants this treatment, it will meet resource objectives and site is very suitable	No, due to lack of available seedtrees	Not necessary for site protection and not possible due to lack of adequate trees	Health and vigor of present stand does not offer this option, nor does the need to access the area with helicopter and the required multiple entries.
15	Yes, stand composition is compatible to meet objectives while maintaining options for future mgt	No, stand replacement not needed and wouldn't maintain the habitat components suitable for winter range	No, stand replacement not needed and wouldn't maintain the habitat components suitable for winter range	Intermediate harvest retains this method as the most logical option for the next harvest entry	Intermediate harvest leaves this option open, although a frequent fire return interval may challenge this option
18 18 A	No, due to the poor health and species composition present, and the need for restorative action.	Clearcutting is an option to meet restoration goals but is not necessary due to available seedtrees.	This option is feasible but not as desirable due to need for site protection and availability of trees	Yes, site protection is recommended, and there are sufficient quality trees available.	Existing stand condition limits this option and the characteristic fire regime in this even aged WL/LP stand does not warrant this silv system
19 19A 19B 19C 19D	Yes, stand composition will permit improvement cut to meet objectives while maintaining options for future mgt	No, stand replacement is not necessary at this time and would not maintain the habitat components suitable for winter range	No, stand replacement is not necessary at this time and would not maintain the habitat components suitable for winter range	No, current stand age and health does not warrant replacement at this time. Intermediate harvest retains this method as the most logical option for the next harvest entry	Intermediate harvest leaves this option open, although a frequent fire return interval may challenge this option as the inherent stand structure is single storied with a limited age distribution.
20	Yes, stand composition will permit improvement cut to meet objectives while maintaining options for future mgt	No, stand replacement is not necessary at this time and would not maintain the habitat components suitable for winter range	No, stand replacement is not necessary at this time and would not maintain the habitat components suitable for winter range	No, current stand age and health does not warrant replacement at this time. Intermediate harvest retains this method as the most logical option for the next harvest entry	Intermediate harvest leaves this option open although poor access and the interest in periodic use of prescribed fire may challenge this option

UNIT #	CAN MODIFY TO MEET TARGET?	REGENERATION/ CLEARCUT	REGENERATION/ SEEDTREE	REGENERATION/ SHELTERWOOD	UNEVEN-AGED MANAGEMENT
23	Yes, stand composition will permit improvement cut to meet objectives while maintaining options for future mgt	No, stand replacement is not necessary at this time and would not maintain the habitat components suitable for winter range	No, stand replacement is not necessary at this time and would not maintain the habitat components suitable for winter range	No, current stand age and health does not warrant replacement at this time. Intermediate harvest retains this method as the most logical option for the next harvest entry	Intermediate harvest leaves this option
25	Yes, stand composition will permit improvement cut to meet objectives while maintaining options for future mgt	No, stand replacement is not necessary at this time and would not maintain the habitat components suitable for winter range	No, stand replacement is not necessary at this time and would not maintain the habitat components suitable for winter range	No, current stand age and health does not warrant replacement at this time. Intermediate harvest retains this method as the most logical option for the next harvest entry	Intermediate harvest leaves this option open
26	Yes, stand composition will permit improvement cut to meet objectives while maintaining options for future mgt	No, the age of stand and its condition do not warrant stand replacement, nor would it meet resource objectives	No, existing conditions do not warrant stand replacement, nor would it meet resource objectives.	No, the site does not warrant the protection of a shelterwood and stand replacement is not appropriate at this time	Intermediate harvest leaves this option open
27 27 A	No, this stand has areas of heavy fuels, a high proportion of mature, dead and dying LP and the need for some level of WP, ES and WL restoration	No, an adequate number of seedtrees is available	Yes, stand replacement is the preferred silvicultural option and will meet resource objectives	No, there is not an adequate number of trees to make this option viable, nor is site protection necessary.	The characteristic fire regime, the resultant species composition, and emphasis on limited mgt access limits the consideration of this option
29	Yes, stand composition will permit improvement cut to meet objectives while maintaining options for future mgt	No, the age of stand and its condition do not warrant stand replacement, nor would it meet resource objectives	No, existing conditions do not warrant stand replacement, nor would it meet resource objectives.	An intermediate harvest now retains this method as the most logical option for the next harvest entry.	Intermediate harvest leaves this option open although poor access and the interest in periodic use of prescribed fire may challenge this option
31	No, this stand has areas of heavy fuels, a high proportion of mature, dead and dying LP and the need for seral species restoration	No, an adequate number of seedtrees is available	Yes, stand replacement is the preferred silvicultural option and will meet resource objectives	No, there is not an adequate number of trees to make this option viable, nor is site protection necessary.	The characteristic fire regime, the resultant species composition, and emphasis on limited mgt access limits the consideration of this option
32	No, declining stand health, high fuels loadings, and LP mortality do not enable this option.	Yes, this option is preferred as it replaces the stand while maintaining snags and scattered reserve trees.	No, an adequate number of seedtrees are not available	No, there is an insufficient number of quality trees available	No, due to the current species mix and general health of stand. Also, more frequent harvest entries are not compatible with wildlife mgt objectives nor the interest in future maintenance burning
33	No, this stand has areas of heavy fuels, a high proportion of mature, dead and dying trees and the need for seral species restoration	No, an adequate number of seedtrees is available	Yes, stand replacement is the preferred silvicultural option and will meet resource objectives	No, there is not an adequate number of trees to make this option viable, nor is site protection necessary.	The existing forest conditions, limited species composition, and poor health of trees, coupled with an emphasis on reduced mgt entries limits the consideration of this option

Silvicultural Diagnosis

Appendix L

UNIT #	CAN MODIFY TO MEET TARGET?	REGENERATION/ CLEARCUT	REGENERATION/ SEEDTREE	REGENERATION/ SHELTERWOOD	UNEVEN-AGED MANAGEMENT
34 A,B 35	Yes, stand composition will permit an intermediate harvest to re-allocate growth and trend stand toward old forest structure	No, stand replacement is not needed at this time	No, stand replacement is not needed at this time	No, stand replacement is not needed at this time and this site does not require protection	Intermediate harvest leaves this option open, if consistent with bear mgt objectives
38 38A	Yes, stand composition will permit improvement cut to meet objectives while maintaining options for future mgt	No, stand replacement is not necessary at this time and would not meet resource objectives	No, stand replacement is not necessary at this time and would not meet resource objectives	Stand replacement is not necessary or consistent with objectives. However, this would be the next logical harvest entry.	Intermediate harvest leaves this option open although the inherent fire regime maintains very few age classes.
40	Yes, stand composition will permit an intermediate harvest to re-allocate growth and trend stand toward old forest structure	No, stand replacement is not desirable at this time	No, stand replacement is not desirable at this time	No, stand replacement is not desirable at this time and this site does not require the protection of a shelterwood	Intermediate harvest leaves this option open, although more frequent entries in this setting may not be appropriate
42A 42B 42	Yes, stand composition will permit improvement cut to meet objectives while maintaining options for future mgt	No, stand replacement is not necessary nor would it meet resource objectives	No, stand replacement is not necessary nor would it meet resource objectives	No, stand replacement is not desirable at this time. However, a SW cut is the next logical treatment and this option has been maintained	Intermediate harvest leaves this option open
44	Yes, despite having a high % of LP, overall stand composition will permit stand modification to meet objectives	No, clearcutting is not a desired silvicultural method at this time	No, stand replacement is not desirable at this time	No, stand replacement is not desirable at this time. However, a SW cut is the next logical treatment and this option has been maintained.	Given the inherent fire regime and the interest in periodic ecosystem maintenance burning this option is not logical.
45	Yes, stand composition will permit improvement cut to meet objectives while maintaining options for future mgt	No, stand replacement is not desirable at this time	No, stand replacement is not desirable at this time	No, stand replacement is not desirable at this time. However, a SW cut is the next logical treatment and this option has been maintained.	Intermediate harvest leaves this option open
46	Yes, stand composition will permit improvement cut to meet objectives while maintaining options for future mgt	No, will not meet intent of maintaining best trees, reducing stand density, and maintaining a manageable stand	No, will not meet resource objectives	Intermediate harvest leaves this option open when stand replacement is considered appropriate	Intermediate harvest leaves this option open although interest in periodic maintenance burning challenges this option
47	Yes, stand composition will permit commercial thinning to re-allocate growth to best trees while improving winter range and reducing fuels	No, stand replacement is not necessary at this time and would not maintain the habitat components suitable for winter range, especially along the highway.	No, stand replacement is not necessary at this time and would not maintain the habitat components suitable for winter range, especially along the highway	No, stand replacement is not necessary at this time, site protection is not necessary and quality of leave trees not available	Intermediate harvest leaves this option open although inherent fire regime, location, and desire to do maintenance burning limits this option

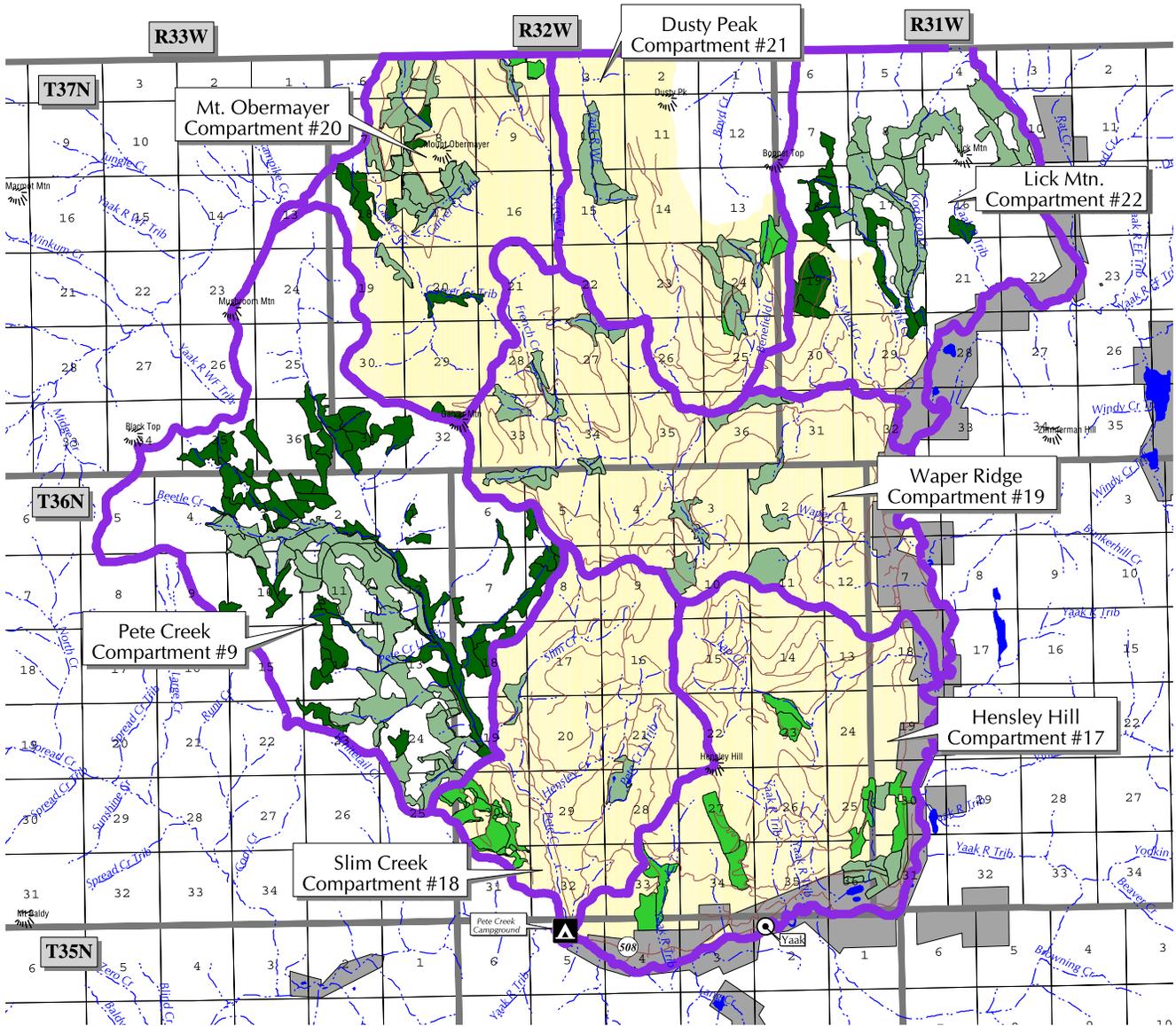
UNIT #	CAN MODIFY TO MEET TARGET?	REGENERATION/ CLEARCUT	REGENERATION/ SEEDTREE	REGENERATION/ SHELTERWOOD	UNEVEN-AGED MANAGEMENT
48	Yes, stand composition will permit commercial thinning to re-allocate growth to best trees while improving winter range	No, stand replacement is not necessary at this time and would not maintain the habitat components suitable for winter range	No, stand replacement is not necessary at this time and would not maintain the habitat components suitable for winter range. This may be the appropriate method in the next entry to this area.	No, stand replacement is not necessary at this time, site protection not necessary	Intermediate harvest leaves this option open although the interest in periodic use of prescribed fire may challenge this option
49 49A	Yes, stand composition will permit improvement cut to meet objectives while maintaining options for future mgt	No, stand replacement is not necessary at this time	No, stand replacement is not necessary at this time	Intermediate harvest leaves open this silvicultural method as the next logical harvest entry	Intermediate harvest leaves this option open although the interest in periodic use of prescribed fire may challenge this option
50 50 A,C 51 52	Yes, stand composition will permit improvement cut to meet objectives while maintaining options for future mgt	No, stand replacement is not necessary at this time nor would it meet resource objectives	No, stand replacement is not necessary at this time nor would it meet resource objectives	Intermediate harvest leaves open this method as the next logical harvest entry	Intermediate harvest leaves this option open although the interest in periodic use of prescribed fire may challenge this option
52a	Not an option due to the stand composition, the amount of mature LP, etc.	No, the presence of seedtrees makes this method less desirable	Yes, stand replacement with a seedtree method is appropriate	No, the site does not require protection and there is limited number of candidate trees	No, the existing stand condition limits this option. Also, the inherent fire regime and desire to re-introduce fire at regular intervals may preclude the creation of uneven aged conditions
53	Yes, stand composition will permit improvement cut to meet objectives while maintaining options for future mgt	No, stand replacement is not desirable in this area	No, stand replacement is not desirable in this area	Intermediate harvest leaves open this method as the next logical harvest entry	Intermediate harvest leaves this option open although not desirable.
55 55 A	Yes, stand composition will permit improvement cut to meet objectives while maintaining options for future mgt	No, stand replacement is not necessary at this time	No, stand replacement is not necessary at this time	No, stand replacement is not necessary, but this treatment leaves open this method as the next logical harvest entry	Intermediate harvest leaves this option open
56	Yes, stand composition will permit improvement cut to meet wildlife objectives while maintaining options for future mgt	No, stand replacement will not meet the overall resource objectives	No, stand replacement will not meet the overall resource objectives	This option is preferable but would not maintain the level of canopy closure desired to meet wildlife objectives. Intermediate harvest leaves this option open as the next logical entry.	Intermediate harvest leaves this option open although inherent fire regime and desire to use prescribed fire at regular intervals may challenge this.
56a	No, due to generally poor stand conditions and the need for some areas of restoration	No, due to the availability of seedtrees	Yes, this method would leave adequate number of reserve trees, seedsource, snags, etc. and would provide a means for restoration	No, insufficient seedtrees	Current stand conditions and setting limits this option

Silvicultural Diagnosis

Appendix L

UNIT #	CAN MODIFY TO MEET TARGET?	REGENERATION/ CLEARCUT	REGENERATION/ SEEDTREE	REGENERATION/ SHELTERWOOD	UNEVEN-AGED MANAGEMENT
57	Yes, stand composition will permit improvement cut to meet wildlife objectives while maintaining options for future mgt	No, stand replacement will not meet the overall resource objectives	No, stand replacement will not meet the overall resource objectives	This option is preferable but would not maintain the level of canopy closure desired to meet wildlife objectives. Intermediate harvest leaves this option open as the next logical entry.	Intermediate harvest leaves this option open although inherent fire regime and desire to use prescribed fire at regular intervals may challenge this
59	No, this stand is maturing and has areas with high levels of insect and disease caused conditions.	No, clearcutting is not appropriate on this site	Yes, this method best fits given the limited number of seedtrees available	No, insufficient seed trees. This would be a logical method given the site if more trees were available.	Existing conditions, poor access, size of units and overall objectives limit this option
60	Yes, stand composition will permit improvement cut to meet wildlife objectives while maintaining options for future mgt	No, clearcutting is not appropriate on this site	No, stand replacement will not meet the overall resource objectives	Not preferred at this time, however this treatment leaves open this option as the next logical harvest entry	Intermediate harvest leaves this option open although inherent fire regime and desire to use prescribed fire at regular intervals may challenge this

Garver Record of Decision Old Growth Analysis Area



0 1 2 Miles

LEGEND

-  Non-Federal Land
-  Garver Old Growth Analysis Area
-  Garver Project Area
-  Roads
- Existing Old Growth Status:
 -  Designated Effective Old Growth - 5,658 acres
 -  Designated Replacement Old Growth - 1,157 acres
 -  Undesignated Effective Old Growth - 2,710 Acres



Old Growth Analysis
Alternative D-Modified
Appendix M

AFFECTED ENVIRONMENT - DEIS PG. 3-39:

Based on a recent Forestwide assessment of old growth (February 2003), allocations of old growth in the Garver old growth analysis area have been updated. The Garver old growth analysis area consists of the timber compartments affected by Garver project. (See table below for a listing of these compartments and the Old Growth Analysis Area map in this appendix for compartment locations.) The Kootenai National Forest Plan direction is to designate a minimum of 10% old growth below 5500' in each 3rd order drainage or compartment or a combination of compartments (Kootenai Supplement No. 85; supplement to FSM 2432.22). The following table provides an updated summary of all inventoried and designated old growth stands within each compartment (see map located in this appendix for locations). The present allocations within the old growth analysis area meet Forest Plan direction as clarified in FSM 2432.22. Specifically, 11% of the land base within the Garver old growth analysis area below 5500' in elevation has been designated as old growth as displayed in the following table.

ALLOCATIONS OF OLD GROWTH IN GARVER ANALYSIS AREA COMPARTMENTS TO MEET FOREST PLAN STANDARDS

COMPARTMENT NAME (NUMBER)	ACRES ALLOCATED TO OLD GROWTH MAS		
	Old Growth	Replacement Old Growth	Total Allocated
Pete Creek (9)	1,816	0	1,816
Hensley Hill (17)	211	672	883
Slim Creek (18)	140	329	469
Waper Ridge (19)	975	0	975
Obermayer (20)	728	47	775
Dusty Peak (21)	568	109	677
Lick Mountain (22)	1,220	0	1,220
Totals	5,658	1,157	6,815*

(#) indicates timber compartment number.
*10% of the analysis area (in acres) totals 6,212 acres.
Note that the total allocated is 6,815 which is 11 percent.

These allocations may be seen on the Old Growth Analysis Area map located in this FEIS Appendix M. Also displayed on the map are stands possessing old growth attributes in compartments where there is a surplus of old growth above what is needed to meet Forest Plan standards (1,904 acres in Compartment 9, 163 acres in Compartment 20, and 643 acres in Compartment 22).

ENVIRONMENTAL CONSEQUENCES

ALTERNATIVE D MODIFIED
Direct and Indirect Effects

This alternative differs from the original Alternative D proposal by dropping all of unit 17 from harvest, therefore maintaining an additional 19 acres of undesignated effective old growth.

This alternative now differs from Alternatives B and C by dropping Units 11, 12, and all of 17, which will drop harvest treatment in a total of 141 acres of undesignated stands with old growth attributes in Compartment 22. Compartment 22 meets Forest Plan standards for old growth, and these stands supplement old growth habitat within the compartment and the analysis area as a whole.

Alternative D-Modified differs from Alternatives B, C, and Alternative D, in that the proposed road closure on the Benefield Road # 5840 for grizzly bear core habitat will result in protecting snag habitat in the future on 25 acres of designated old growth that is currently accessible for firewood gathering. However, 8 additional acres of the designated old growth stand situated along the portion of Garver Mtn. Road #5857 may be impacted by firewood cutting.

Old Growth Analysis

Alternative D-Modified

Appendix M

Alternative D-Modified also drops Unit 1, which was proposed as a regeneration unit adjacent to a designated old growth stand. Therefore this alternative differs from Alternatives C and D by eliminating 2 acres of potential edge effect to this stand.

The following table displays a comparison of old growth indicators for the action alternatives, including Alternative D-Modified and updates Table 3-16 in the DEIS.

MA 13, MA 2-OG, MA 21-OG Comparison of Alternatives

Units of Measure	Alt A	Alt B	Alt C	Alt D	Alt D Mod
Acres allocated to MA- 13 designation in Compartment 17	883	883	883	928	928
Acres of habitat with potential for old growth management designation dropped from proposed treatment	N/A	0	0	122	141
Acres potentially lost from wind events	0	4	6	6	4
Acres of interior habitat made ineffective	0	4	6	6	4
Acres of potential snag loss due to firewood cutting from opening and utilizing closed roads for the Garver project	0	0.8	0.8	0.8	8.8
Acres of old growth snag habitat protected from closing road #5840 post project	0	0	0	0	25

CUMULATIVE EFFECTS COMMON TO ALL ALTERNATIVES

Basic road maintenance, noxious weed spraying, blowdown harvest projects, firewood cutting, and various recreational uses are additional activities, which would likely occur adjacent to old growth in the project area. These activities are generally not considered to have adverse impacts on old growth or associated species, and combined with the activities proposed by this project will not substantially increase impacts to old growth. These activities may incidentally affect wildlife use within some areas of old growth on a temporary basis, but are not likely to affect the viability of any associated species. Adherence to Forest Plan standards relative to old growth and snag habitat assist in the avoidance of cumulative effects on old growth and associated species.

Forestwide analysis of effective old growth concludes that at least 10% of the KNF below 5500 feet is in old growth condition. The KNF has 1,867,886 acres below 5500 feet elevation (minus lakes and highways). There are currently 311,653 acres of old growth on the KNF; 291,761 acres of this old growth exist below 5500 feet elevation. These 291,761 acres below 5500 feet, 196,076 acres or 10.5%, are effective old growth. The remaining 95,685 acres are “replacement” old growth. (See “Forestwide Old Growth by Type and Survey Method” 2/10/03 display located in Old Growth section of the project file.).

FOREST PLAN CONSISTENCY

Alternative D-Modified is consistent with Forest Plan direction to maintain a minimum of 10% old growth below 5500’ in each 3rd order drainage or compartment or a combination of compartments (Kootenai Supplement No. 85; supplement to FSM 2432.22). Eleven percent has been designated in the Garver AA.