

**APPENDIX A
PUBLIC INVOLVEMENT
AND
COLLABORATION**

Mountain Pine Beetle Response Project Public Involvement and Collaboration

During project development and analysis period, collaborative efforts were made to involve, interact, and cooperate with individuals and groups interested in the MPBR Project. Part of this effort included public scoping as discussed below.

Scoping is the process of obtaining public comments about proposed federal actions to determine the breadth of issues to be addressed. Comments on the proposed action, potential concerns, and opportunities for managing the MPBR Project Area were solicited from members of the public, American Indian Tribes, other public agencies, adjacent property owners, organizations, and Forest Service specialists.

A scoping letter was mailed to approximately 333 potentially interested parties, including adjacent landowners, Tribes, and State and local governments, beginning on August 2, 2011. This letter included a description of the project area, an overview of the NEPA process, a general explanation of the actions proposed and the reasons for the proposal, and an invitation to comment. Three public meetings were held to explain the proposal to the public, and to take comment. A total of 268 members of the public attended these meetings, which were held in Sundance, WY; Hill City, SD; and Spearfish, SD.

The project was entered into the Schedule of Proposed Actions (SOPA) in June 2010. SOPA contains a list of Forest Service proposed actions that will soon begin or are undergoing environmental analysis and documentation. It provides information so the public can become aware of and indicate interest on specific proposals (located on-line at www.fs.fed.us/sopa).

The Notice of Intent (NOI) to prepare an EIS was published in the *Federal Register* on Monday, August 8, 2011. This provided official notification that the public comment period for the MPBR Project Area would last for 30-days concluding September 7, 2011. A corrected NOI was published in the *Federal Register* on Thursday, February 23, 2012 to update the Deciding Official determinations.

Opportunity to Comment

The public was provided an opportunity to comment on the MPBR Project Draft Environmental Impact Statement (DEIS) during a 45-day comment period. This comment period began when a Notice of Availability (NOA) was published in the *Federal Register* on Friday, May 11, 2012. A Legal Notice was published in the Rapid City Journal, newspaper of record, on Saturday, May 12, 2012, announcing an 'Opportunity to Comment' on the MPBR Project DEIS. The comment period ended on July 25, 2012. An 'Open House' was held at the Best Western Ramkota, Legion Conference Room, Rapid City, South Dakota on May 17, 2012. The Forest received 41 responses, including letters, emails, facsimiles, and phone calls. The responses have been analyzed using a process called content analysis.

Comment Content Analysis and Agency Response Process

Content analysis is a method developed by a specialized Forest Service unit, the Content Analysis Team (CAT), for analyzing public comment. This method employs both qualitative and quantitative approaches. It is a systematic process designed to provide a mailing list of respondents, distinguish specific comments in each response, evaluate similar comments from different responses, and from those, identify specific concerns.

The content analysis process strives to identify all relevant issues, not just those represented by the majority of respondents. In addition to capturing relevant factual input, the content analysis identifies the relative emotion and strength of public sentiment behind particular viewpoints. The intention of the content analysis process is to represent the public's viewpoints and concerns as fairly as possible, and to present those concerns in such a way as to assist the ID Team in effectively responding to them.

The ID Team reviewed the public comment statements and considered the substance of the concerns, evaluated whether they triggered a change in the environmental analysis, and drafted responses. For some comments, they reviewed the original letter or other input to ascertain the full context for the concern statement.

The ID Team provided any recommendations for adjustments to the DEIS analysis or documentation to the Team Leader for review, consideration, and action. The ID Team provided responses to 37 letters and 195 public comments. Some comments were received late, and thus not formally addressed in Appendix A of the FEIS (HFRA, Title I, Sec. 104(b)(g)). No public comment, including late comments, on the DEIS generated the need for reanalysis of the alternatives. Additional discussions and/or factual and clarifying information have been incorporated in the document.

In general, the ID Team responded in the following ways to public concerns as prescribed in the 40 CFR 1503.4.

- Modify alternatives including the proposed action.
- Supplement, improve, or modify analysis.
- Make factual corrections.
- Explaining why the comments do not need further Forest Service response.

In response to the comments on the DEIS, the ID Team has made factual and clarifying corrections in the document, and/or explained why changes are not warranted. Minimal response (basically acknowledgement) has been made to concerns stating a position or an opinion. However, these positions and opinions have been compiled by the ID Team for consideration by the Responsible Official. Some specific suggestions for management of the project area may be adopted by the Responsible Official, other specific concerns are beyond the authority of the Forest Service and beyond the scope of the DEIS or determined to be impractical. None of the comments necessitated reanalysis of alternatives.

The following is a list of individuals and organizations that commented on the MPBR Project DEIS:

Letter Number	<u>Name</u>
1	Jean Public
2	Ralph Kopp
3	City of Deadwood - Mayor
4	USDOI – Office of the Secretary
5	Crook County Land Use Planning and Zoning Commission
6	Dan Buehler
7	Wyoming State Forestry Division
8	Neiman Timber Co., L.C.
9	Wyoming Game and Fish Department
10	Patrick Brondos
11	Bill Loffer
12	James R. Nelson
13	Franklin Carroll
14	John E. Batt
15	Crook County Farm Bureau
16	Everett Hoyt
17	Mark Stiller
18	City of Spearfish – Mayor
19	Senator Tom Nelson – District 31, Lawrence County
20	City of Lead – Mayor
21	Bill Coburn
22	US DOI – Bureau of Reclamation
23	Weston County Natural Resource District
24	Prairie Hills Audubon Society
25	Derek Larsen
26	Paul Pierson
27	Friends of the Norbeck
28	US EPA – Region 8
29	Black Hills Multiple Use Coalition
30	Black Hills Forest Resource Association
31	Federal Forest Resource Coalition
32	Dave Brenneisen
33	Biodiversity Conservation Alliance
34	Spearfish Canyon Owners Association
35	Black Hills National Forest Advisory Board
36	Meade County Board of Commissioners
37	Wyoming State Historic Preservation Office

Public Comment on the Draft EIS

Public comment on the Draft EIS was rich and varied, and reflects, for the most part, respondents' livelihood, lifestyle, and/or position/opinion on issues or concerns.

In general, the majority of the respondents living within and adjacent to the project area are very supportive of vegetation management to reduce the mountain pine beetle infestation and the risk of wildfire under the action alternatives. The following are sample excerpts from original responses:

...the most effective alternative from a cost stand point and overall effectiveness is Alternative C hands down (Letter 6 Comment 1).

Taking an adaptive approach in addressing the probability of stands that will be affected by mountain pine coupled with the known methods to reduce mountain pine beetle infested stands can be effectively implemented in a timely manner with this project (Letter 6 Comment 1).

Preference for Alternative B. Between the proposed Alternative B (Alt B) and Alternative C (Alt C) I have a greater dislike for Alt C. Roads. Alt C would add 70 miles of new roads, 180 miles temporary roads, and maintain, reconstruct and convert many more miles than in Alt B (Letter 2 Comment 3).

Agency Response to Public Comments

In the content analysis process, each response is assigned a unique number (ID) and given a number (Letter Number). This ID allows analysts to link specific comments to the original letter. All respondents' names and addresses are entered into a project-specific database, enabling creation of a complete list of all respondents. Each comment is given a number (Comment Number) and is coded by response. The following report: *Mountain Pine Beetle Response Project DEIS Public Comment and Agency Response Report* contains the complete list of respondents' comments and the Agency's response. Original letters are held in the MPBRP Project File at the Forest Supervisor's Office in Custer, SD.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 1 **Comment No:** 1 **Resource:** Plan

Public, Jean

Comment:

no pine encroachment into meadows should be stopped - are you killing these trees for gun wacko hunter? the public is requesting less action against the mt pine beetle. let the trees naturally defeat this beetle. no toxic chemicals should ever be used. pls identify what "public" is asking fs to take action - is it the toxic chemical profiteers 2who want to sell toxic product to influct on earth? pls dont use anonymous "public" to try to bolster any profit arrangements going on. pls identify fullyt he alleged "public" clamoring for action.

Agency Response:

Comment noted.

Letter No: 2 **Comment No:** 1 **Resource:** Vegetation

Kopp, Ralph

Comment:

Treatments. As areas are identified to be treated I would like to see those areas given consideration for following treatments:

1. Uneven-age treatments. Currently only about 4% of total even-age + uneven-age pine related treatments are uneven-age. Uneven treatments have a greater potential for enhancing structural diversity and wildlife habitat.
2. More hardwood, spruce, meadows. The Black Hills could use more of these cover types, plus MPB do not thrive in these non-pine environments.

Agency Response:

Uneven-aged treatments are acceptable silvicultural methods in Forest Plan as amended (DEIS p.114-115).

Treating stands at high risk for MPB and high fire hazard which are adjacent to other cover types may enhance the adjacent stands which may be hardwoods, spruce and meadows.

Letter No: 2 **Comment No:** 2 **Resource:** Trans/Travel

Kopp, Ralph

Comment:

Preference for Alternative B. Between the proposed Alternative B (Alt B) and Alternative C (Alt C) I have a greater dislike for Alt C. My primary reasons are:

Roads. Alt C would add 70 miles of new roads, 180 miles temporary roads, and maintain, reconstruct and convert many more miles than in Alt B. For many of the past timber/bug/fire proposed projects in the Black Hills countless miles of new roads are built, but seldom are roads removed. The increased development of the dense road system in the Black Hills and the encouragement of "anything goes" travel by OHV over the last 10+ years has only resulted in a blight of even more roads and motorized trails. Any future projects on the Black Hills should help to serve to reverse this trend. I would like to see less or no new roads, and the obliteration of roads at the end of the project instead of just closing them.

Agency Response:

Alternative B discloses the effects of no new road construction.

See Agency Response to Letter 9, Comment 5.

Letter No: 2 **Comment No:** 3 **Resource:** Plan

Kopp, Ralph

Comment:

Preference for Alternative B. Between the proposed Alternative B (Alt B) and Alternative C (Alt C) I have a greater dislike for Alt C. My primary reasons are:

Cost. The overall net of projected costs over revenues are \$25 million for Alt B vs \$67 million for Alt C. Roads costs are \$2 million for Alt B vs \$6 million for Alt C.

Agency Response:

Comment noted.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 2 **Comment No:** 4 **Resource:** Vegetation

Kopp, Ralph

Comment:

Preference for Alternative B. Between the proposed Alternative B (Alt B) and Alternative C (Alt C) I have a greater dislike for Alt C. My primary reasons are:

Treatment Capability. For Alt C, 124,000 acres would be treated over 5-7 years, or about 20,000 to 25,000 acres/year. This would be in addition to current and future timber projects on the Black Hills.

The following data is a summary of 24 current/past timber projects on the BHNH dating from 2006 to 2012 and have had a Record of Decision (ROD). Assuming that following the ROD, the project would take a little over 5 years to conclude (an overly optimistic assumption), I derived a # of commercial acres to harvested each year (total column on the far right). These are understated because it does not consider projects before 2006 and those in the future. However, it is easy to see that the current level of harvest should be 40,000 to 50,000 per year. [Note: Tables held in Project File] If the BHNH is not now treating the 40,000+ of acres approved by recent ROD's, then how will they manage an additional 20,000 + acres a year? It is not possible. The resources needed to implement Alternative C and to do anything else are not available. Therefore Alternative C should not be considered or selected.

Agency Response:

Sold timber sales have specific contract length of time and contractual provisions. The Forest has an annual volume sold target. The volume sold equates generally to 22,000 to 28,000 acres per year. The areas selected under the MPBR Project will be integrated into the forest programs of work, rather than being simply additive to historical programs. Providing more sold volume provides the timber purchaser flexibility of logging operations to efficiently operate plus in a better financial position to stay in operation. Maintaining a forest products industry is key to Black Hills forest management.

Letter No: 3 **Comment No:** 1 **Resource:** Plan

City of Deadwood, Mayor

Comment:

The city of Deadwood is in support of the Proposed Action - Alternative B. Having had a history of brushes with large fires Deadwood is supportive of the Forest Service's response to reduce the potential for large scale wildfire. Alternative C was shown to harvest trees on a larger acreage than the Proposed Alternative B but did not demonstrate a greater potential for fuel management. Alternative C would have the greatest human impact on the forest by the construction of 70 miles of new System and 180 miles of temporary roads.

Agency Response:

Comment noted.

Letter No: 3 **Comment No:** 2 **Resource:** Fire/Fuels

City of Deadwood, Mayor

Comment:

For the past here years Deadwood has had an on-going "Firewise" Program to assist in lowering our potential for a catastrophic forest fire and thinning to restrict the spread of mountain pine beetle. We pledge to continue to assist in any means possible to assure this document and the Forest Service preferred alternative are accepted and fully implemented while there is still time to make a difference.

Agency Response:

Comment noted.

Letter No: 4 **Comment No:** 1 **Resource:** Plan

US Department of Interior,
Office of the Secretary

Comment:

The U.S. Fish and Wildlife Service has no comments on the document and advises that any concerns would be addressed through the Section 7 consultation process. We offer the following comments provided by the National Park Service and U.S. Geological Survey for your consideration.

Agency Response:

Comment noted.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 4 **Comment No:** 2 **Resource:** Plan

US Department of Interior,
Office of the Secretary

Comment:

National Park Service:

Wind Cave National Park staff have reviewed the DEIS for the Mountain Pine Beetle Response Project. The EIS was very well written and adequately addresses the proposed project. Wind Cave would recommend Alternative B as the preferred alternative. They look forward to seeing this project implemented and are willing to assist in any way they can.

Agency Response:

Comment noted.

Letter No: 4 **Comment No:** 3 **Resource:** Hydro

US Department of Interior,
Office of the Secretary

Comment:

U.S. Geological Survey:

Chapters 3 & 4: Much of the surface water data presented in Chapter 3 is not referenced. The list of references presented in Chapter 4 contains numerous USGS publications that are probably the source of these data but are not cited. In addition, several of the references listed in the Chapter 4 list of references are not used in the text. Examples include: Driscoll, 2000, Carter, 2002, Carter, 2003, and Williamson, 2000.

We recommend that the hydrologic data presented in Chapter 3 be properly cited, and that a thorough check of the listed references be conducted; including use of a standard format.

Agency Response:

References have been updated and the citation format standardized, as appropriate.

Letter No: 5 **Comment No:** 1 **Resource:** Plan

Crook County Land Use
Planning & Zoning Commission

Comment:

We thank you for and appreciate the opportunity to comment on the MPBR project, and we applaud the intention of the BHNF to respond to the MPB epidemic.

Included in our opinion is that the chosen alternative should comply with the Multiple-use Sustained-yield Act of 1960, so we are strongly opposed to Alternative A. Alternative A provides for no action to be taken which would allow vast acreages of trees to be killed by the MPB, thereby removing those acreages from sustainable timber production for an unacceptably long period of time. Alternative A would also result in a degradation of the "Scenic Integrity" of many parts of the Black Hills, which in turn would adversely affect property values, recreational experiences, as well as likely reduce visitation and tourism dollars that help support many communities in our region.

Agency Response:

There are costs associated with Alternative A, No Action to ecosystem components (forest resources - wildlife habitat, scenery, recreation resources, etc.). Clarification to the Social/Economic section in Chapter 3 has been included in the FEIS under Alternative A reflecting the costs regarding potential consequences of No Action to slow the MPB epidemic.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 5 **Comment No:** 2 **Resource:** Plan

Crook County Land Use
Planning & Zoning Commission

Comment:

We support the choice of Alternative C for numerous reasons, including:

1. Approximately 76 000 acres(258%) more trees will be thinned in this alternative which will allow for that much more healthy forest--able to resist infestation, and a commensurate amount of salable timber to help offset costs. It also provides a needed commodity, provides local employment, adds to the local economy, is environmentally acceptable and can make an important difference in quickly and effectively reducing infestations and wildfire

Agency Response:

Both action alternatives would allow the FS to respond to MPB in a quick and effective manner to reduce infestations and wildfire hazard. Alternative C allows for thinning in advance of MPB on the landscape.

Letter No: 5 **Comment No:** 3 **Resource:** Plan

Crook County Land Use
Planning & Zoning Commission

Comment:

We support the choice of Alternative C for numerous reasons, including:

2. Complies with the Multiple-use Sustained-yield Act of 1960 in that it helps maintain a healthy forest that allows for immediate and continued timber harvest, hunting and other recreational appeal, and increased grazing opportunities/revenue;

Agency Response:

The MPBR Project is under the authority of the Healthy Forests Restoration Act (HFRA). The Project is consistent with the HFRA, NFMA, and MUSYA and the Forest Plan.

Letter No: 5 **Comment No:** 4 **Resource:** Plan

Crook County Land Use
Planning & Zoning Commission

Comment:

We support the choice of Alternative C for numerous reasons, including:

3. Given the urgent need for action, Alternative C is the only way for the agency to quickly do something significant and effective to safeguard sustainable resources and defend against large-scale wildfire.

Agency Response:

Comment Noted.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 6 **Comment No:** 1 **Resource:** Plan

Buehler, Dan

Comment:

Thank you for the opportunity to submit the following comments on the MPBRP DEIS. It was appropriate to use HFRA for this project as well as for most projects on the Black Hills. The action alternatives presented both work towards the purpose and need of this project, which plans to reduce MPB effects on the ecosystem and reduce hazardous fuel loadings. However, the most effective alternative from a cost stand point and overall effectiveness is Alternative C hands down.

The approach taken is crucial for the remaining forest industry infrastructure and the forest health of the Black Hills National Forest. Taking an adaptive approach in addressing the probability of stands that will be affected by mountain pine coupled with the known methods to reduce mountain pine beetle infested stands can be effectively implemented in a timely manner with this project. This is the pro-active approach necessary to maintain or improve various multiple uses on the BHNH before it completely deteriorates. Success from this project can only help other National Forests with similar problems.

Agency Response:

Comment noted.

See Agency Response to Letter 5, Comment 2.

Letter No: 6 **Comment No:** 2 **Resource:** Vegetation

Buehler, Dan

Comment:

I recommend Alternative C with the following comments:

Alternative C proposes treatments on 248,000 high risk acres, but falls short of the 550,000+ high risk acres identified in the Forest Service data base that was updated in 2008. I am disappointed that the initial project started with 325,000 acres and has already been reduced without any implementation. Alternative C reduces the consequences on the most available acres and I suggest the remaining 300,000+ acres of high risk stands have some sort of entry in the near future. Limiting your project acres only reduces your overall effectiveness. MPB treatment needs to be the number one priority over other resource concerns. I still believe that the entire BHNH needed blanket coverage and was necessary in light of our current situation.

Agency Response:

The MPBR project Alternative C includes 248,000 acres of high risk stands. The 550,000 acres referenced includes areas identified as high risk for the whole National Forest.

The acres identified in Scoping (325,000) were refined in the DEIS to exclude District past, present, foreseeable NEPA projects (DEIS Appendix C) and mapping errors.

The initial MPBR project did identify 325,000 acres but through initial database analysis and deletion of some project planning areas sufficiently in progress for completion.

See Agency Response to Letter 33, Comment 9.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 6 **Comment No:** 3 **Resource:** Vegetation

Buehler, Dan

Comment:

I recommend Alternative C with the following comments:

Alternative C proposes 124,000 acres of mechanical treatment with up to 70 miles of new System roads and/or 180 miles of temporary road construction. I support maximizing the amount of road construction miles necessary to be consistent with meeting the overall project objectives. I would prioritize the use of temporary road construction but the obliteration or decommissioning of these roads should take place after the treatment area is deemed secured from further infestation. There is a need to treat all the high risk stands. If the areas are off limits because of road limitations, the probability of those stands lost due to MPB goes up as well as it allows the MPB to perpetuate and spread further across the forest. The Forest Service also needs to actively engage the adjacent landowners to manage their stands as well as pursue temporary right of ways to limit unnecessary road building. Most landowners are willing to provide access if approached.

Agency Response:

DEIS page 47 Table 2-1 summarizes effects to key issues by alternative.

See Agency Response to Letter 8, Comment 3; Letter 9, Comment 5; Letter 23, Comment 3; and Letter 35, Comment 2.

Letter No: 6 **Comment No:** 4 **Resource:** Vegetation

Buehler, Dan

Comment:

I recommend Alternative C with the following comments:

Management activities are needed in Management Area 4.2A, i.e. Spearfish Canyon. I advocate implementing the decision to include Mgmt Area 4.2A at this time to avoid further delays to treatment in this area which is included in Alternative C. Reserving these sensitive areas will only support the sensitive species habitat for a short time. At the very minimum, sanitation needs to be allowed to protect Spearfish Canyon. Failure to do so, will allow the MPB to change the forest stand characteristics so these are inhabited by the very sensitive species aimed to protect.

Agency Response:

Both action alternatives meet the purpose of and need for action (DEIS page 25-26).

Alternative C proposes treatment acres in Management Area 4.2.

Letter No: 6 **Comment No:** 5 **Resource:** Vegetation

Buehler, Dan

Comment:

I recommend Alternative C with the following comments:

Alternative C allows for thinning the basal area down to an effective density to potentially avoid annual treatments in the same stands compared to Alternative B—sanitizing only. Thinning is truly the only management technique proven to protect individual stands if done on a landscape level or at least greater than 160 acres. Strategically locating stands to be treated under Alternative C need to coincide with upcoming and/or current timber sales to have the most success in defending stands from MPB attacks.

Agency Response:

DEIS page 47 Table 2-1 summarizes effects to key issues by alternative. Alternative C thins more acres thereby lowering the stand density on the landscape. Locating and targeting stands to be treated is key to overall treating stands before the mountain pine beetles get there. Forest management periodically adjusts the timber sale schedule and annual program of work to strategically focus on an efficient forest management program. Alternative C would provide management the flexibility to respond and treat stands prior to mountain pine beetle

MPB Response EIS Public Comment and Agency Response Report

Letter No: 6 **Comment No:** 6 **Resource:** Vegetation

Buehler, Dan

Comment:

I recommend Alternative C with the following comments:

Attention needs to be given to the silvicultural prescriptions leading up to implementation. I recommend more diverse stand age classes to enhance resistance to future MPB attack and spread. We need to be planning for long term when applying treatments on the ground. If silvicultural prescriptions continue to manage for even-aged stands the forest will have the same problems in 50 years with MPB. I encourage the Forest Service to give careful consideration at the long term efforts to start changing the stand conditions MPB thrive in.

Agency Response:

Silvicultural prescriptions are identified in the Forest Plan as amended. (DEIS page 115). The probability of mountain pine beetle infestation increases with stand density (DEIS page 112). The purpose and need focuses on development of vegetative conditions to reduce the mountain pine beetle epidemic and reduce the fire hazard.

Letter No: 6 **Comment No:** 7 **Resource:** Plan

Buehler, Dan

Comment:

I recommend Alternative C with the following comments:

Timing of the Mountain Pine Beetle Response Plan from the start had a timeline of 18 months. I am very disappointed that it will have taken 2 bug flights with implementation still slated for Fall 2012. I strongly challenge the Forest Service to sign the Record of Decision no later than October 1, 2012 so that treatments may begin as soon as possible. Further delays reduce the overall effectiveness of this project.

Alternative C is the best action alternative based on purpose and need for the Mountain Pine Beetle Response

Agency Response:

The MPBR Project Scoping period began August 8, 2011, with an anticipated decision Fall of 2012. The project timeline is consistent with the dates given during Scoping.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 7
Comment No: 1
Resource: Plan

Wyoming State Forestry Division

Comment:

We appreciate the opportunity to review and comment on the Mountain Pine Beetle Response Project Draft Environmental Impact Statement (DEIS). We are pleased that project planning is well underway and hope that the project is aggressively implemented. The long term health and productivity of forest stands in the Black Hills National Forest (BHNF) is critical to the social and economic well-being of communities in the area.

Many of our scoping comments related to this project seem to have been addressed in Alternative B and better addressed by Alternative C. We encourage you to select Alternative C for implementation or use components of Alternative C to modify Alternative B into an effective and readily implementable MPB Response Project (Project). Time is of the essence because expansion rates for current beetle activity will limit the effectiveness of a project that is delayed.

We believe that Alternative C is consistent with Forest Plan direction and numerous goals and objectives for the management of the Black Hills National Forest. We are pleased to see multiple management area categories included in the Project since addressing the current problems requires a "whole forest" approach.

We encourage the adaptive approach where forest managers are allowed to react to changing conditions and apply the best, most effective, and most cost-effective treatments case by case. We agree with the use of insecticides such as carbaryl in recreation sites to preserve high value trees.

The DEIS states that "stand density is the primary driver of MPB infestation." We agree and we support the Project and how it addresses both currently infested trees and stands that are not yet affected by MPB. The DEIS also states that "without action there is the probability of complete landscapes being killed over time if untreated." We agree, and we believe the evidence based on ongoing MPB activity in the Black Hills and other Region 2 national forests clearly supports that statement.

The following are some of the reasons for our support of implementation of Alternative C:

The DEIS describes Alternative C as the more proactive response to the purpose and need for action.

Alternative C reduces MPB risk on more acres than Alternative B.

Alternative C reduces fire risk/hazard on more acres than Alternative B.

Alternative C provides the best cooperative effort with state and local governments.

Alternative C treats more acres and produces more commercial volume.

Alternative C addresses what the BHNF heard from cooperators during scoping.

Alternative C provides the most opportunities for road system maintenance and improvement to address important resource issues.

Alternative C would modify fire behavior on more acres than Alternative B. Modifying fire behavior is one of the numerous benefits of active forest management.

The Project would be a positive step towards mitigating the effects of the current mountain pine beetle epidemic. In addition to striving to maintain healthy forests on the landscape implementation of the project will help meet other long term goals related to vegetation and wildlife habitat diversity.

We are pleased that the project acknowledges the importance of reducing the threat of increasing fuels in and around wildland-urban interface areas as a result of bark beetle activity. We also agree that reducing the threat to adjacent state and private lands is critical.

The results of inaction can be seen on national forests across Wyoming as bark beetle epidemics have drastically altered forests and affected numerous forest resources. We encourage the Forest to fully implement this Project as soon as possible. Given the condition of Wyoming's forests, active forest management should be used to help keep remaining forests healthy and resilient.

Agency Response:

Comment noted.

See Agency Response to Letter 5, Comment 2.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 7 **Comment No:** 2 **Resource:** Vegetation

Wyoming State Forestry Division

Comment:

One area of concern related to this Project is the lack of treatments in stands that are structural stage 5 or late-successional stands. The DEIS indicates that some tree mortality may enhance the characteristics of late-successional stands. While this may be true to some extent, the danger under present conditions is that we may see near-complete mortality in overmature stands without intervention. These stands could become sources of beetle activity affecting neighboring stands. We think the adaptive management process should be applied to

Agency Response:

MPBR project includes structural stage categories of 3B/3C/4B/4C (DEIS page 114-115) which are high risk for mountain pine beetle infestation and are high fire hazard. Structural stage 5 is not proposed to be treated in the MPBR Project.

Letter No: 8 **Comment No:** 1 **Resource:** Plan

Neiman Timber Company

Comment:

Neiman Timber Co., L.C (NTC) would like to thank you for the opportunity to submit the following comments on the Mountain Pine Beetle Response Project (MPBR) DEIS. We also applaud the Forest Service for utilizing HFRA on this project, and hope that MPRB can be used as a model for future projects.

First, Neiman Timber Company would like to express its' support of Alternative C. We feel that this alternative provides the needed flexibility to most effectively and efficiently meet the Purpose and Need of the project while maximizing returns on the investment.

Purpose and Need:

Overall, we feel that both action alternatives work towards the Purpose and Need of the project by reducing threats to ecosystem components posed by the MPB epidemic, as well as reducing hazardous fuels. The two action alternatives, however, vary greatly in both the potential effectiveness and implementation costs.

Alternative C, with 75,600 additional acres of commercial/non-commercial treatments, best meets the Purpose and Need of the project. Commercial/non-commercial treatments provide the quickest, most efficient, and most cost effective method of treating MPB on a large scale. In addition, Commercial/non-commercial treatments can reduce hazardous fuels efficiently and cost effectively through whole tree logging. Treating up to 50% of the project area commercially, as proposed in Alternative C, should significantly reduce implementation costs.

Agency Response:

Comment noted.

See Agency Response to Letter 5, Comment 2.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 8 **Comment No:** 2 **Resource:** Vegetation

Neiman Timber Company

Comment:

As previously stated, NTC supports Alternative C because it best meets the Purpose and Need of the project. We would like to provide the following specific comments on Alternative C:

"Landscape level thinning in advance of large beetle infestations."

Reduction of Basal Area within a stand is the only proven way to reduce the impacts of MPB within said stand. Research has shown that individual stands cannot be saved by treating the surrounding stands, as has been the Forest Services' approach in recent years. Landscape level thinning meets both primary objectives of the Project; reducing the ecosystem threats posed by MPB and reduces hazardous fuels. By only removing infested trees on the majority of the treatment area, Alternative B will only prolong the MPB epidemic. Beetles will continue to re-infest these stands each year and will require annual treatment. By reducing the BA of the stand on the initial entry, as proposed in Alternative C, the need for retreatment is significantly reduced, therefore reducing implementation cost.

"Treatments in MA 4.2A Spearfish Canyon."

NTC supports the proposed Forest Plan Amendment proposed in Alternative C to allow for treatments within management area 4.2A. By selectively treating the stands within Spearfish Canyon the Forest Service will be able to select trees for removal as opposed to the beetles selecting all the trees for removal.

Agency Response:

DEIS table 2-1 displays the project alternatives where both action alternatives meet the purpose and need. Alternative C has more opportunity and flexibility than Alternative B to thin landscape areas in advance of becoming infested. Research on thinning to lower basal areas are Schmid 2007, Negron 2007, Boldt 1974, McCambridge 1982, Shepperd & Battaglia 2002.

See Agency Response to Letter 33, Comment 9.

Letter No: 8 **Comment No:** 3 **Resource:** Trans/Travel

Neiman Timber Company

Comment:

As previously stated, NTC supports Alternative C because it best meets the Purpose and Need of the project. We would like to provide the following specific comments on Alternative C:

"Up to 70 Miles of new System and/or 180 miles temporary road construction"

NTC understands that new system and temporary roads will need to be constructed to access the additional areas proposed for treatment under Alternative C. On other projects we have found that access through adjacent private lands can greatly reduce the quantity of new road construction needed. We would like to encourage the Forest Service to pursue temporary right-of-ways wherever possible.

Agency Response:

New road construction miles could be reduced if access is allowed through adjacent private land to the areas proposed for treatment under Alternative C. However, during the analysis no rights-of-way were pursued. Therefore, the number of road construction miles in Alternative C represents road construction from existing roads on Forest lands to the proposed treatment areas.

In an effort to reduce new road construction for Alternative C, the Forest Service may pursue rights-of-way wherever possible. (DEIS pg 106) states, "There may be opportunities to improve the transportation system within the MPBR PTAs and to obtain the minimum road system needed for response to the Pine Beetle Epidemic. These opportunities are..."Construct roads or obtain Rights of Way to access areas restricted by steep terrain or private

MPB Response EIS Public Comment and Agency Response Report

Letter No: 8 **Comment No:** 4 **Resource:** Vegetation

Neiman Timber Company

Comment:

Best Available Science:

In the winter of 2011 and 2012, Neiman Timber Company engaged in an exercise to map all new MPB activity within the BHNH. Utilizing the Forest Service 1M Digital Aerial Photography taken in the fall of 2011, NTC technicians identified and hand-delineated all new red top trees within the photo coverage. Every effort was made to exclude green patches within beetle killed areas, as well as other patches of timber mortality due to fire or other insects. This process was repeated for the 2010 Forest Service 1M Digital Aerial Photography. The resulting GIS data clearly shows the MPB caused mortality from the 2009 and 2010 MPB flights. We feel that this data is superior to the aerial sketchmapping data referenced in the DEIS, an opinion supported by the USFS document A Comparison of Aerial Sketchmapping and Aerial photo Interpretation Techniques for Conducting Forest Health Surveys in the Black Hills National Forest, Backsen and Howell, 2012. This data has been previously provided to GIS and resource staff at the Supervisors Office and is attached to these comments.

Agency Response:

To capture recent collaborative efforts for the Black Hills NF the following is summarized: Neiman Timber Company and the State of South Dakota hand-delineated red top trees from recent aerial photographs. For fiscal year 2012 there is a cooperative effort lead by State of South Dakota for late summer 2012 aerial photographs to repeat the digitizing to capture the mountain pine beetle infestations. The Forest Health aerial reconnaissance flight is not scheduled due to the aerial photo flight followed by digitizing to more accurately map infestations. The Forest Health program has elected to utilize the digitizing work to replace the annual Forest Health flight.

MPBR uses the best available information primarily from Forest Health reconnaissance (field and aerial reviews) as documented in the Silviculturist specialist report. The above collaborative efforts evolved simultaneously with MPBR.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 8 **Comment No:** 5 **Resource:** Plan

Neiman Timber Company

Comment:

Implementation:

Integrated Pest Management is only as effective as the strategy that is guiding on the ground treatments, and for the Purpose and Need of this project to be truly met, implementation cannot be left out of the conversation. The MPBR DEIS provides no guidance or information as to how the project will be applied on the ground. Continuing with the scattered "shot-gun" application of treatments across the 248,000 acres of the MPBR project area will frankly be a waste of critical resources.

Page 25 of the DEIS, paragraph 3, relates the MPBR to the Western Bark Beetle Strategy (WBBS), stating that "The extent of the epidemic requires prioritization of treatments, first providing for human safety...second, addressing ... hazardous fuel treatments adjacent to high value areas[.]" The following paragraph continues "The Black Hills National Forest MPB Strategy incorporates the WBBS, the current understanding of available scientific research, and presents a science-based path forward. The strategy will be achieved through well-defined goals, objectives, and action items, to address each of the three prongs of the bark beetle problem: human safety, forest recovery, and long-term forest resiliency. The action alternatives in Mountain Pine Beetle Response Project address, to varying degrees, the safety, recovery, and resiliency presented in the WBBS and the Forest Strategy."

There is no further information as to how MPBR will be applied to meet the goals and objectives set forth in the WBBS, nor the Forest Strategy. NTC strongly suggests that the FEIS outline in detail how, and to what extent, the action alternatives will comply with the WBBS and the BHNH MPB strategy.

Our hope is that an overriding implementation document is developed to ensure maximum effectiveness of this project, and to ensure that all four districts use the same strategy when applying treatments on the ground, and that the Purpose and Need is met. NTC would like to suggest a explicitly defined ranking system be included in the FEIS outlining how areas will be prioritized for treatment. Suggested criteria that should be considered when assigning rank or priority for treatment should include the following:

- Resource Value
- Watershed Threat and condition
- Site index (productivity)
- Timber continuity and species component
- Adjacency with other treatments, i.e. treated private lands, State and County sanitation efforts
- Adjacency with At Risk Communities
- Ability to treat 80% of the area, the recognized benchmark for MPB treatment effectiveness
- Compliance with the BHNH MPB Strategy and WBBS

How the treatments are implemented and applied on the ground are so critically important to the success of a project of this scale that the details simply cannot be overlooked in the FEIS. Finally, NTC feels that the implementation timeline and process is of critical importance to this project. We recommend an implementation date no later than 10/1/2012.

Agency Response:

Additional language has been added to Design Criteria, Mitigation, and Monitoring sections in the FEIS to clarify the adaptive process and use of Integrated Pest Management techniques on the ground.

Letter No: 9 **Comment No:** 1 **Resource:** Plan

Wyoming Game and Fish Department

Comment:

Terrestrial Considerations:

Maintaining healthy forest conditions is vitally important to support wildlife and provide human recreational opportunity. As such, we appreciate and support some proactive and reactive measures taken by the United States Forest Service (USFS) in an attempt to mitigate the Mountain Pine Beetle (MPB) epidemic facing the Black Hills National Forest (BHNH).

Healthy and resilient forest ecosystems can only be sustained over time by maintaining a diversity of habitat types across the forest landscape. It is also imperative that similar habitat types are heterogeneous in both size and distribution across the landscape. Past silviculture practices have tended to move the BHNH away from this ideal. The current Forest Plan, as amended, has considered this history and is beginning to move the BHNH towards a more historic range of variability to enhance species diversity and viability. As such, efforts to control MPB and reduce the threat of catastrophic wildfires should continue this course of action by augmenting stand diversity and, as a consequence, habitat diversity and stability.

Agency Response:

Comment noted.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 9 **Comment No:** 2 **Resource:** Vegetation

Wyoming Game and Fish Department

Comment:

Unfortunately, it is not possible for WGFD to comment specifically as to preferred treatment design and timing by area due to the scope of the MPB epidemic facing the BHNF and the broad nature and amorphous implementation schedule of this project. Instead, we focus on providing suggested guidelines for implementing MPB control measures.

We recommend consideration should be given to using patch cuts. Patch cuts may also be buffered by a thinned pine stand. With this suggested treatment, green MPB hit trees in patches of 5 to 20 acres would be removed along with all remaining pine trees within the patch. Essentially, we suggest conducting small patch clear cuts of pine to the maximum extent provided by the National Forest Management Act in order to remove infested trees and enhance habitat diversity. This technique would be especially useful to target areas where aspen is located or is being outcompeted by pine in order to move towards the forest wide objectives for aspen.

Agency Response:

MPBR project is consistent with the Forest Plan. Openings are expressed through structural stage 1 desired percent. Small openings are feasible in efforts to remove recently mountain pine beetle hit areas (DEIS page 123,124,127).

Letter No: 9 **Comment No:** 3 **Resource:** Fire/Fuels

Wyoming Game and Fish Department

Comment:

Unfortunately, it is not possible for WGFD to comment specifically as to preferred treatment design and timing by area due to the scope of the MPB epidemic facing the BHNF and the broad nature and amorphous implementation schedule of this project. Instead, we focus on providing suggested guidelines for implementing MPB control measures. Prescribed fire should be used in areas classified as big game winter range (MA 5.4) following silvicultural treatments to address MPB. Such action would aid sanitation following treatment, help maintain reduced stand density, and enhance forage production for big game.

Agency Response:

Application of prescribed fire was considered but eliminated from detailed study (DEIS pg 44).

The use of prescribed burning may be initiated under future projects to benefit other resources such as big game.

Letter No: 9 **Comment No:** 4 **Resource:** Vegetation

Wyoming Game and Fish Department

Comment:

Unfortunately, it is not possible for WGFD to comment specifically as to preferred treatment design and timing by area due to the scope of the MPB epidemic facing the BHNF and the broad nature and amorphous implementation schedule of this project. Instead, we focus on providing suggested guidelines for implementing MPB control measures.

Wherever silvicultural based MPB treatments are used, we recommend varying the density, size, and shape of thinned stand buffers surrounding treatment areas – both within a treatment area and between treatment areas. That is, thin the perimeter of MPB treated areas to a variety of stand densities, shapes and distances. This will eliminate creation of sharp edges (except perhaps in the case of patch cuts) and large, single stands densities and will be more beneficial to wildlife.

We recommend avoiding large scale thinning to single stand densities. Thinning projects over 200 acres should be designed to increase stand diversity rather than move entire stands towards a single density. This can be done through patch cutting, selective thinning, multi-age thinning, and creation of stands of varying stem densities within a larger stand.

Where applicable, MPB treatments should be employed that encourage regeneration of aspen and increases in aspen stand size and vigor, while removing MPB infect pine and reducing pine stand density. This would reduce the threat of future MPB attacks and the spread of wildfire and also move the BHNF towards its desired condition for aspen.

Agency Response:

Silvicultural prescriptions are identified in the Forest Plan as amended. (DEIS page 115). Even-aged and uneven-aged harvest methods are acceptable prescriptions. As stated in Purpose & Need the focus is to reduce stand density to lower probability of mountain pine beetle infestation.

Research supporting thinning to lower basal areas are Schmid 2007, Negron 2007, Boldt 1974, McCambridge 1982, Shepperd & Battaglia 2002.

See Agency Response to Letter 8, Comment 5 and Letter 33, Comment 9.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 9 **Comment No:** 5 **Resource:** Trans/Travel

Wyoming Game and Fish Department

Comment:

Unfortunately, it is not possible for WGFD to comment specifically as to preferred treatment design and timing by area due to the scope of the MPB epidemic facing the BHNF and the broad nature and amorphous implementation schedule of this project. Instead, we focus on providing suggested guidelines for implementing MPB control measures.

Any closed system roads that will be opened, or non-system roads that will be used, to gain access to areas for MPB treatment(s) should be effectively closed, and obliterated, when treatments are finished. Effective road closures (gates and barriers that cannot be breached or circumvented) are lacking in the Wyoming portion of the BHNF. Where physical barriers to motor vehicle traffic are used, we recommend they be better designed to be

Agency Response:

Total road densities (open and closed road densities) would remain the same from those shown in Table 3-15 under Alternative B. The total road density would increase from those shown in Table 3-15 under Alternative C because of new NFSR and temporary road construction. All new roads constructed as a result of the MPBR project would be closed after harvest operations; therefore, the open road densities would not change (DEIS pgs 103 and 106). The BHNF is aware of your concern about the effectiveness of road closures (DEIS pg 104) states "Some existing road closures may be ineffective". Closure of roads in flat terrain, with limited vegetation, may be challenging and expensive. Page B-5 of the DEIS provides more information about road closure methods.

In addition to physical closure methods, roads not shown on the Motor Vehicle Use Map (MVUM) are closed to public travel. The Black Hills National Forest Travel Management Record of Decision (ROD) was signed on May 7, 2010. The ROD designated certain roads and trails as open to motorized vehicle traffic on lands administered by the Forest. Conversely, motor vehicle use is prohibited on routes and areas not designated open to use. Motorized travel, as allowed on designated routes and areas, is depicted on the MVUM.

Letter No: 9 **Comment No:** 6 **Resource:** Plan

Wyoming Game and Fish Department

Comment:

Unfortunately, it is not possible for WGFD to comment specifically as to preferred treatment design and timing by area due to the scope of the MPB epidemic facing the BHNF and the broad nature and amorphous implementation schedule of this project. Instead, we focus on providing suggested guidelines for implementing MPB control measures.

The document suggests the use of an adaptive management process for evaluating treatments for MPB. However, for adaptive management to work, the process must outline a set of thresholds to which to compare treatment outcomes through monitoring in order to evaluate the effectiveness of the treatments. The document does not list or describe any thresholds. We recommend the BHNF include a description of appropriate thresholds to serve as a goal to evaluate if the current treatment is working or not. Thus, evaluating (through monitoring) whether a threshold is surpassed or not will "trigger" a response to evaluate the current treatment and cause a continuation of the treatment, a cessation of the treatment, or a change in treatment strategy.

Agency Response:

See Agency Response to Letter 8, Comment 5.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 9 **Comment No:** 7 **Resource:** Wildlife

Wyoming Game and Fish Department

Comment:

In addition to the aforementioned comments, we provide items for inclusion and clarification in the DEIS:

The effects of this project on elk management were not considered. Elk are a species of local concern and high importance to both Wyoming and South Dakota with significant impact to the local economies and recreational activities. A variety of studies in the Black Hills (Rumble et al. 2005, Benkobi et al. 2005, Rumble and Garno 2011, 2011 b) and elsewhere (Lyon 1983, Thomas et al. 1979, Thomas et al. 1988) have repeatedly documented negative impacts to elk from reduced hiding cover and increased vehicular traffic and human presence - all of which will be part of this project. Consequently, we request the USFS analyze this project's impacts to elk in the Final EIS. In addition, we recommend project activities should be suspended during the elk hunting season (Sept. 1 - Jan. 31) to minimize conflicts with hunters. In recent years, the WGFD has had difficulty attaining appropriate harvest levels of elk on the BHNH due to multiple human disturbance activities occurring on the BHNH which has contributed to moving elk off of the BHNH and on to private lands. This has resulted in a substantial decline in elk hunter success particularly in the Moskee area.

Agency Response:

A section was added in the EIS addressing the impacts to elk.

The timing restriction to suspend project activities during elk hunting season was not included in the design criteria for the alternatives because it is not required by the Forest Plan and may not be appropriate for all parts of the Project Area. However, such timing restrictions can be considered at the local area, such as Moskee, by the interdisciplinary team as part of the implementation process. Considerations may include many factors, including urgency of treatments, treatment objectives, and other resource concerns (e.g., timing for other resources).

Letter No: 9 **Comment No:** 8 **Resource:** Wildlife

Wyoming Game and Fish Department

Comment:

In addition to the aforementioned comments, we provide items for inclusion and clarification in the DEIS:

The DEIS erroneously reports that white-tailed deer numbers are stable or increasing citing WGFD 2007 information. However, since 2007, both white-tailed deer and mule deer numbers have declined substantially. In 2011, we estimated that the number of white-tailed deer in the Black Hills herd unit had declined approximately 40% from that of 2007, and is now estimated to be slightly more than 25% below management objectives. We suspect the herd's numbers will continue to decrease into 2013. We recommend these changes in the population of white-tailed deer should be noted in the DEIS, and the effects analysis consider impacts to a deer population well below management objective.

Agency Response:

The population numbers for white-tailed deer in Wyoming were revised based on your comments and recent WGF data. Thank you for the comment.

Letter No: 9 **Comment No:** 9 **Resource:** Hydro

Wyoming Game and Fish Department

Comment:

Aquatic Considerations:

We provided aquatic comments in a letter dated August 31, 2011. We have no additional aquatic concerns.

Agency Response:

Comment noted.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 10 **Comment No:** 1 **Resource:** Plan

Brondos, Patrick

Comment:

I would like to thank you for the opportunity to submit comments on the Mountain Pine Beetle Response Project (MPBR) DEIS. I also would like to thank the Forest Service for utilizing HFRA on this project, and hope that MPRB can be used as a model for future projects.

I would like to express my support of Alternative C. I believe that this alternative provides the needed flexibility to most effectively and efficiently meet the Purpose and Need of the project while maximizing returns on the investment. With this said, I believe it is imperative that this project get done in a timely manner since we are fighting time and every year that goes by, we lose more trees. I recommend that this project be implemented no later than 10/1/2012.

Agency Response:

See Agency Response to Letter 6, Comment 7.

HFRA does provide for expedited administrative procedures for authorized projects, such as MPBR Project. This, however does not change the required resource analysis of project impacts under NEPA.

Letter No: 11 **Comment No:** 1 **Resource:** Vegetation

Loffer, Bill

Comment:

I prefer Alternative "C" of the Black Hills National Forest Mountain Pine Beetle Response Project Draft EIS. The reasons are as follows:

1. Thinning acreage is greatest in Alt. C, 105,400ac. vs. 41,140ac. The forest is severely overstocked. Stands that have had their BA lowered are significantly more resistant to beetle attack. Reducing stand densities over a larger area will be more successful in bringing down the number of infested trees. Higher air currents in thinned stands help disperse pheromones which help in diffusing beetle attacks. Obviously, not all overstocked stands can be treated, but the forest must have stocking levels come down over time. Alt. C has 2.5 times the area treated by thinning. Efforts have to be at a landscape level across the board.
2. Alternate C includes MA 4.2A, Spearfish Canyon. This jewel of the Black Hills deserves added attention as it is a highly visible and high use area. A major outbreak in MA 4.2A could negatively affect Spearfish Creek and its related amenities.
3. As stated in the draft, stand diversity would be increased most in Alternative C. This would help ready the forest for future outbreaks of the MPB while providing additional diversity for wildlife and plants.

Agency Response:

See Agency Response to Letter 6, Comment 4.

Letter No: 11 **Comment No:** 2 **Resource:** Fire/Fuels

Loffer, Bill

Comment:

I prefer Alternative "C" of the Black Hills National Forest Mountain Pine Beetle Response Project Draft EIS. The reasons are as follows:

4. The draft states that Alternate C is the best for reducing fire hazards. This is a very important in the Black Hills. There are many WUI's that are at risk from wildfire. The possibility of loss of life as well as property should be a paramount point in the final decision.

Agency Response:

Comment noted.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 11 **Comment No:** 3 **Resource:** Plan

Loffer, Bill

Comment:

I prefer Alternative "C" of the Black Hills National Forest Mountain Pine Beetle Response Project Draft EIS. The reasons are as follows:

5. Cooperation with local governments, as stated in the draft, would be best under Alternative C. There have been some very good efforts along these lines already. All of us are smarter than one of us. By maximizing cooperation across all agencies and others, we get the biggest bang for the buck.
6. The best economical alternative is C.

From your own analysis, Alternative C is superior in helping to alleviate this epidemic. More treatments now will reduce mitigation costs in the future, especially to valuable infrastructure. I would ask that you decide for Alternative C.

Agency Response:

Comment noted.

Letter No: 12 **Comment No:** 1 **Resource:** Plan

Nelson, James

Comment:

Thank you and your staff for the effort to put together the Mountain Pine Beetle Response DEIS. I have been coordinating closely with the Lawrence County Timber and Invasive Species groups as they have pursued efforts to work with the BHNH in searching for, and developing efforts and agreements to focus more energy and investment on the battle to arrest the expanding MPB infestations in Lawrence County.

Due to my involvement with the Timber Committee in reviewing the DEIS, that Committee's report to the Lawrence County Commission(LCC) and the LCC recent letter response on the MPB DEIS, I want to note that I fully support and agree with that letter as forwarded to you by the LCC. Alternative C is definitely the appropriate Alternative of USFS presentations to the public last August.

Agency Response:

Comment noted.

Letter No: 12 **Comment No:** 2 **Resource:** Vegetation

Nelson, James

Comment:

I also want to reinforce the LCC recommendation that Alternative C be expanded to include the "Hanna Canyon" area of Management Area 4.2A for treatments under the MPB Project. As you know, our teams under the collaborative effort with USFS this past winter expended a great deal of time and manpower to attack the green-infested MPB areas there as part of that collaborative effort. This MPB Project should be built upon to take advantage of, and incorporate into the MPB Project, the lessons learned from that effort. Hanna Canyon has been a continuing concern for the County and the Canyon homeowners since the early 2000 time period. We were happy to see concerted effort there under the collaborative effort this past winter, but we have been disappointed once again to find it was not proposed for any treatment by this DEIS. As the beetle infestation has moved northward, Hanna Canyon, being the southernmost part of Spearfish Canyon, is on the leading edge of this south-to-north infestation of the Northern Hills and thus, we believe, a critical part of the battle to control the beetle infestation in the rest of the Canyon and Management Area 4.2A.

Agency Response:

Management area boundaries are discussed in the DEIS p.14 and 18-19.

See Agency Response to Letter 6, Comment 2 and Letter 15, Comment 2.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 13 **Comment No:** 1 **Resource:** Plan

Carroll, Frank

Comment:

I strongly support Alternative C. Alternative C provides Forest line officers with the most management flexibility to use discretionary power to fit specific situations, case by case.

Agency Response:

Comment noted.

Letter No: 13 **Comment No:** 2 **Resource:** Vegetation

Carroll, Frank

Comment:

In addition I would offer the following specific recommendations:

1. In the Record of Decision please allow landowners adjacent to NFS lands to identify and spray specific trees against pine beetle attacks at the land owner's expense. In other words, if there are some nice trees within 1000 feet of the fenceline allow property owners to spray those trees at their expense. It costs the government nothing and is safe if done in keeping with label directions.
2. Allow private land owners and other agencies to identify, mark, cut and chip mountain pine beetle or Ips engrave beetle attacked trees that are within 1000 feet of the forest boundary. Again the cost to the government is very low and landowners can then stop or stymie the beetle attacks by making certain populations of beetles in trees next to their properties are dead and gone. The chips would be left in place to burn later or leave for mulch.
3. Allow land owners, in the ROD, to cut and drag or skid cut trees, pine beetle kill or precommercial thinning, onto their own property to pile and burn. It is so frustrating to know your efforts to cut and take care of pine beetle killed trees alone are doing nothing to mitigate fire hazards or change forest structure so it is no longer mountain pine beetle and wildfire resistant. Let people cut any tree under 6 inches dbh, drag it onto their own property, and pile it for burning. No cost to the government and high owner involvement and personal buy in to the need to thin and maintain forest health.

Agency Response:

See Agency Response to Letter 15, Comments 3 and 4.

Letter No: 13 **Comment No:** 3 **Resource:** Fire/Fuels

Carroll, Frank

Comment:

In addition I would offer the following specific recommendations:

4. Direct the Forest fire and fuels organizations, supported by the forest specialists and general militia, to return to a vigorous policy of piling and burning hand and machine piles. Fire is the single most beneficial force at work in ponderosa pine forests and we must continue to burn piles and broadcast burn. It is unacceptable that the Forest FMO and Rangers have abandoned burning as a viable management tool. Direct this activity from the top and measure results.

Agency Response:

Pile burning is addressed. Pile burning is expected to take place as conditions addressed in a pile burning plan are completed.

See Agency Response to Letter 9, Comment 3.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 13 **Comment No:** 4 **Resource:** Vegetation

Carroll, Frank

Comment:

In addition I would offer the following specific recommendations:

5. Declare MPB to be a species of local concern in terms of being a pest worthy of special and sustained treatment to stop attacks or change forest structure to deny the beetles habitat in which to succeed. Declare them a temporary invasive species and a threat to future wildfire liabilities in our communities and forests. Add them to the list of feral species in that with the change in forest density we now have populations far above any we experienced in the past and therefore should take action to classify them as pests, invasive species, akin to and highly dangerous and immediate urgent threat to forest health and community safety.

Agency Response:

Species of local concern are defined as Plant, fish and wildlife species (including subspecies or varieties) that do not meet the criteria for sensitive status and include species with declining trends in the local area, or those that are important components of diversity in a local area. The local area is defined as NFS lands within the Black Hills National Forest. Species of local concern are identified in the Forest Service Manual using the criteria in Black Hills Supplement BH_supp_2600-2011-1. The identification of MPB as a Species of Local Concern is outside the scope of this project.

Letter No: 13 **Comment No:** 5 **Resource:** Plan

Carroll, Frank

Comment:

Thanks for your great and timely work on this key issue. Please give yourselves and those of us working alongside you the tools we need to do the work.

Agency Response:

Comment noted.

Letter No: 14 **Comment No:** 1 **Resource:** Plan

Batt, John E.

Comment:

Thank you for the opportunity to comment on the MPB Response Project DEIS. Because I am professional forester with 32 years experience in the Black Hills the current mountain pine beetle situation is very important to me.

To make this very brief and to the point, Alternative C will be the most effective of the analyzed alternatives as far as addressing the mountain pine beetle epidemic.

Agency Response:

Comment noted.

Letter No: 14 **Comment No:** 2 **Resource:** Vegetation

Batt, John E.

Comment:

However, two problems continue to diminish the potential effectiveness of this project:

1. The project is not addressing enough acres. Many acres of the Black Hills national Forest identified as high risk will not be addressed by this project as it is now proposed.

Agency Response:

See Agency Response to Letter 6, Comment 2.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 14 **Comment No:** 3 **Resource:** Plan

Batt, John E.

Comment:

However, two problems continue to diminish the potential effectiveness of this project:

2. This project is taking too long to produce any action on the ground. It took the Forest Service far too long to realize the need for this type of project, and now it is taking far too long to complete and implement. This is another fine example of the agency "fiddling while Rome burns".

Agency Response:

See Agency Response to Letter 6, Comment 7.

Letter No: 15 **Comment No:** 1 **Resource:** Plan

Crook County Farm
Bureau Federation

Comment:

The Crook County Farm Bureau Federation, with over 450 active members, is an advocate for all agriculture in the county, including significant portions of the Black Hills National Forest. The Black Hills National Forest, as the last 4 generations have known it, is about to undergo a significant backward step in ecological succession that will probably deprive the next 4 generations of anything similar. The current MPB epidemic appears to be so overwhelming that only the most all-out effort could have any meaningful influence on it.

This DEIS should be one of the most affirmative and aggressive documents ever to come out of the BHNF. Instead, this document appears to be written in the same bureaucratic attitude adopted by the Agency just to meet the degree of questioning by the environmental community and the evolved standards of the courts. There is simply no sense of urgency conveyed. Of the three alternatives presented, Alternative C offers the most options to deal with the epidemic. But even it falls woefully short of the effort really needed to deal with this situation. The entire Forest Service, if it really means to save the BHNF, must declare an emergency and shift all programs, personnel and budget into this effort. This is not being proposed and "Rome" will likely burn while the Forest Service fiddles.

Too much of the DEIS is dedicated to "fluff" that does not lead to better understanding or solutions. A good example of this is the Chapter on WATERSHED. Also, it appears to us that the analyses of impacts throughout the document are more focused on those caused by the treatment actions rather than those that will occur if no action or insufficient action is taken. The No Action alternative is the most disastrous, followed by any selected alternative that is insufficiently aggressive to bring the epidemic back to endemic status. Alternative B falls into that category and Alternative C needs to be beefed up as suggested above.

Agency Response:

Comment noted. The MPBR Project is similar to District landscape projects: reduce the threat of MPB infestation and fire hazard. The difference is the scale and adaptive approach in which management activities is an iterative process over time via monitoring.

Both action alternatives would allow the FS to respond to MPB in a quick and effective manner to reduce MPB infestations and wildfire hazard.

The areas identified in the MPBR Project for potential treatment do not include project areas that are currently under NEPA analysis, have NEPA decisions, or are designated as a special area (RNA's, Botanical Areas, etc.).

Law, Regulations, Policy dictate the contents and analysis to be included in an EIS (40 CFR 1502.10 (36 CFR 220.5(d)). Forest Service Handbook gives further direction at FSH 1909.15 Chapter 20.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 15 **Comment No:** 2 **Resource:** Plan

Crook County Farm
Bureau Federation

Comment:

How did our community and our culture get to this point where we seem to be willing to accept the destruction of a national forest and all that it means to our way of life? It defies any logic we can relate to when environmental organizations, who claim to protect our national forests, actually take positions to guarantee their destruction. If Sand Creek inventoried roadless area, Crow Peak, Inyun Kara and Black Elk Wilderness are some of the crown jewels of the BHNF, why do these organizations lobby for their destruction and even litigate and threaten litigation if efforts are proposed to save them? Part of that can be answered by the term "ignorance" and part of it by the business plan of an industry based on contention.

Perhaps even more disturbing is the inclination of the professional administrators (including the line officers) of the Forest Service to be willing to write off most of the BHNF, including the crown jewels already mentioned. Their goal seems to be to "stay below the radar" rather than stand up and make good decisions for the health of the forest and then defend them. George Orwell's future has become our reality.

Agency Response:

Alternatives Considered but Eliminated from Detailed Study (DEIS pgs 43-44) discuss the rationale for not including these 'special areas'. Future projects, not related to the MPBR Project, may propose activities in these

Letter No: 15 **Comment No:** 3 **Resource:** Plan

Crook County Farm
Bureau Federation

Comment:

The one area of real promise and progress in this generally dismal situation is the action taken by the counties within the Forest and their local concerned citizens. Your Black Hills National Forest Advisory Board has recommended that the BHNF sign onto the "all lands" strategy and the selected alternative in the FEIS should emphasize this cooperation with local governments. If nothing else, the USFS needs to get out of the way and let the local governments defend their portions of the BHNF.

Agency Response:

All actions proposed in the MPBR Project would occur on NFS lands. The project will be consistent with the FP as required by law.

The Forest Service has worked cooperatively with adjacent landowners, county, State, and other Federal agencies regarding the on-going MPB epidemic and fire hazard (see Public Involvement DEIS pg 28 and Appendix A).

See Agency Response to Letter 21, Comment 3.

Letter No: 15 **Comment No:** 4 **Resource:** Plan

Crook County Farm
Bureau Federation

Comment:

Having discussed all that is wrong with the project, DEIS, and the Agency, The Crook County Farm Bureau Federation makes the following recommendations.

- The Forest Service, starting at the Washington Office and down through the R2 Regional Office, needs to re-program all funds and personnel on the Black Hills National Forest to concentrate entirely on the MPB epidemic.
- Cooperate 100% with the local counties and the States of South Dakota and Wyoming that are taking bold action to battle the MPB in their communities.
- Get off you philosophical high horse and make rational and ethical plans to treat the MPB on every acre that is a threat, including inventoried roadless areas.

Agency Response:

The Purpose and Need for the MPBR Project is to: Reduce the threat to ecosystem components, including forest resources, from the existing mountain pine beetle epidemic; and Help protect local communities and resources from large scale wildfire by reducing hazardous fuels (DEIS pg 26).

The Forest Service will continue to work cooperatively with landowners, county, State, other Federal agencies to meet the purpose and need for this project.

Funding for Forest Service program of work is done through annual appropriations. The Forest will continue to work with its Regional and Washington Offices to secure funding for project implementation.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 16 **Comment No:** 1 **Resource:** Plan

Hoyt, Everett

Comment:

I would like to offer the following comments as a part of the formal comments regarding the Mountain Pine Beetle Response Project Draft Environmental Impact Statement (MPBRP DEIS) as a part the formal record in this proceeding. To me, the issue and Preferred Alternative are self evident - the Black Hills National Forest (BHNF) is facing an unprecedented mountain pine beetle (MPB) epidemic which is destroying the ecology of much of the Black Hills forest and creating conditions which will probably lead to large scale forest fires in the Black Hills region.

It is painfully obvious to residents and visitors to the BHNF that USFS is late in implementing effective measures to control the advance of the MPB, so that heroic measures are now necessary to implement an effective response to save as much of the remaining BHNF as possible. It's high time that the forest-wide approach presented in the MPBRP DEIS is taken to respond to the MPB epidemic throughout the BHNF!

The purpose and need in the DEIS are clear -stop the advance of the MPB in order to preserve the ecology of the BHNF and to prevent conditions which will support large scale (aka "catastrophic") forest fires. The MPRP DEIS proposes measures to achieve Forest Plan Goals 7 and 10 -Collaborate and cooperate with individuals, organizations, and other agencies to coordinate effective MPB response efforts; and manage the BHNF to "reduce occurrences of catastrophic fire, insect and disease events."

GIVEN THE CONDITIONS WE'RE NOW FACING IN THE BHNF, DEIS ALTERNATIVE C PROVIDES THE MOST EFFECTIVE RESPONSE TO THE MOUNTAIN PINE BEETLE EPIDEMIC. ALTERNATIVE A IS A NON-STARTER, AND ALTERNATIVE B IS TOO LITTLE, TOO LATE!

Alternative C was apparently developed as a result of the public scoping efforts in the Black Hills region. Black Hills residents, State and local governments, and agencies are asking the USFS to lead a coordinated effort to respond to the MPB epidemic -they want to help in the fight against the MPB, to have a role, to "get in the game." To its credit, USFS has developed Alternative C in response to the public outcry for USFS take the most effective measures possible to control the MPB epidemic -Now! To disregard Alternative C and select either of the other Alternatives presented in the MPBRP DEIS would show a serious disregard for local sentiment.

Agency Response:

Comment noted. Alternative C was developed in response to public comments received during the scoping period. Specifically, it responds to concerns about not treating more 'high risk' stands on a landscape basis, treating in advance of MPB, and addresses concerns about safety and access on roadways (DEIS pg. 36).

Letter No: 16 **Comment No:** 2 **Resource:** Vegetation

Hoyt, Everett

Comment:

With an opportunity to select Alternative C: Why wouldn't the USFS take the opportunity to convert 124,000 acres from High Fire Hazard Rating to Moderate Fire Rating, and from High MPB Risk Rating to Moderate MPB Risk Rating? Why wouldn't the USFS take the opportunity to fully engage the timber industry by permitting mechanical treatments in 124,000 acres? Why wouldn't the USFS take the opportunity to take proactive "resiliency" measures, such as thinning of forest stands, to prevent MPB spread. MPBRP DEIS Alternatives A and B just don't get the job done! And, Yes -USFS should use and build the roads necessary to implement the MPBRP effectively!

With the MPB chewing up the BHNF an epidemic rate, this is not the time to back away from the most effective response and approach proposed to combat the MPB epidemic in the BHNF! This is not the time to compromise, to give every proponent/opponent something and water-down Alternative C and the ability to effectively fight the MPB -this is a time for bold decision and action! To do otherwise is to do a great injustice to the users of the BHNF and the residents of the Black Hills region.

In the strongest terms possible, I encourage USFS to select Alternative C as the Preferred Alternative and move expeditiously to implement the MPB response measures in Alternative C -to do otherwise is to abdicate USFS responsibility!

Agency Response:

See Agency Response to Letter 6, Comment 5.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 17 **Comment No:** 1 **Resource:** Plan

Stiller, Mark

Comment:

Thank you for the opportunity to comment on the MPBRP DEIS. It was appropriate to use HFRA for this project as well as for most projects on the Black Hills. The action alternatives presented both work towards the purpose and need of this project, which plans to reduce MPB effects on the ecosystem and reduce hazardous fuel loadings. However, the most effective alternative from a cost stand point and overall effectiveness is Alternative C hands down.

The approach taken is crucial for the remaining forest industry infrastructure and the forest health of the Black Hills National Forest. Taking an adaptive approach in addressing the probability of stands that will be affected by mountain pine coupled with the known methods to reduce mountain pine beetle infested stands can be effectively implemented in a timely manner with this project. This is the pro-active approach necessary to maintain or improve various multiple uses on the BBNF before it deteriorates. Success from this project can only help other National Forests with similar problems.

Agency Response:

Comment noted.

Letter No: 18 **Comment No:** 1 **Resource:** Plan

City of Spearfish, Mayor

Comment:

Thank you and your staff for efforts to develop this project. The City of Spearfish has been very active in being involved with Lawrence County and others in the efforts on the Mountain Pine Beetle issue. The impact has been devastating and we have many concerns going forward.

I have had the opportunity to review the comments that were submitted from the Lawrence County Commissioners and agree with all their comments and the total document. The City of Spearfish also supports Alternative C and we agree it should be implemented as early as this fall.

Because the City of Spearfish's involvement with Lawrence County with the Mountain Pine Beetle issue, I am not going to be redundant on the Lawrence County Commissioners comments. I agree that many mistakes have been made in the past on some of the decisions on priority areas and it is now time to do what is right and necessary. The Pine Beetle is not only destroying the forest, it is causing tremendous economic and environmental harm to our community and to the entire Black Hills. We do not believe that the damage incurred along with the inevitable cleanup costs are truly reflected in the draft document.

Agency Response:

Comment noted.

Letter No: 19 **Comment No:** 1 **Resource:** Plan

Senator Tom Nelson, District 31

Comment:

Thank you and your staff for your efforts to develop this Project. As you are aware, I and the state legislature has been very concerned with the Mountain Pine Beetle and its impacts on our region ever since the infestation began back in 1997.

I have reviewed the comments submitted by Lawrence County, and find that they are more than appropriate. Thus, I believe that Alternative C, together with the County's recommendations, better meets the purpose and need for action as stated in the D.E.LS. and Scoping Documents.

The MPB epidemic is not only destroying the forest, it is causing great economic and environmental harm to our communities and the entire Black Hills. I do not believe that the damage incurred, along with the inevitable cleanup costs, are truly reflected in the draft document.

It is imperative that the BBNF work with all of the stakeholders in implementing the recently completed Black Hills Regional Mountain Pine Beetle Strategy Plan. This fight is going to be very expensive and protracted. Accordingly, we all need to focus our limited resources to those areas where a difference can be made.

Again, thank you for your time and efforts. If there is anything that I can do for you, please contact me personally.

Agency Response:

Comment noted.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 20 **Comment No:** 1 **Resource:** Plan

City of Lead, Mayor

Comment:

We thank you and your staff for your efforts to develop this Project. As you are aware, the City of Lead has been very concerned with the Mountain Pine Beetle and its impacts on our region ever since the infestation began back in 1997.

We have reviewed the comments submitted by Lawrence County, and find that they are more than appropriate. Thus, on behalf of the City of Lead, we believe that Alternative C, together with the County's recommendations, better meets the purpose and need for action as stated in the D.E.I.S. and Scoping Documents.

The MPB epidemic is not only destroying the forest, it is causing great economic and environmental harm to our communities and the entire Black Hills. We do not believe that the damage incurred, along with the inevitable cleanup costs, are truly reflected in the draft document.

It is imperative that the BHNF work with all of the stakeholders in implementing the recently completed Black Hills Regional Mountain Pine Beetle Strategy Plan. This fight is going to be very expensive and protracted. Accordingly, we all need to focus our limited resources to those areas where a difference can be made.

Again, thank you for your time and efforts. If there is anything that the City of Lead can do for you, please contact me personally.

Agency Response:

Comment noted.

Letter No: 21 **Comment No:** 1 **Resource:** Plan

Coburn, Bill

Comment:

I wish to thank you and your staff for your efforts to develop this Project, especially in crafting a new alternative to partially address the concerns of the public. As you know the public is truly very concerned about what is happening out there and the USFS is in a very precarious position in trying to demonstrate to the public that they also care. This infestation is now in the 15th year and time is running very short to be able to make significant progress on slowing the infestation down so it is important that the USFS put its best foot forward by selecting Alternative C. This will give the Black Hills National Forest the best chance of effectively treating the large number of infested trees and reducing the susceptibility of high risk stands. Alternative C is also the only alternative that sufficiently meets purpose and need of this project by efficiently and timely reducing MPB effects on the ecosystem and hazardous fuel loadings.

I also would like to compliment the BHNF for its adoption of "Adaptive Forest Management Approach" to this problem. As this epidemic continues to evolve, it is going to be very important to be able to efficiently react to where treatments need to be applied. Alternative C provides the USFS with the most flexibility and range of options to address the mountain pine beetle epidemic.

Agency Response:

Comment noted.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 21 **Comment No:** 2 **Resource:** Plan

Coburn, Bill

Comment:

With the new faders that are showing up in mass, the public outcry is only going to get wider and more intense for the USFS to do whatever it takes to take care of the problem. This is a critical juncture. It is important that the USFS demonstrate to the public that they are fully committed to this effort and send them the right message by selecting Alternative C. Going half in by selecting Alternative B will not work from a strategic standpoint nor a public acceptance point. The situation in the Black Hills is grave. There are currently at least 4.5 million infested trees that a new generation of mountain pine beetles are going to fly out of and it is going to take some aggressive actions to try to address it.

Alternative C also gives the USFS the necessary tools and NEPA approval to do more timely and efficient landscape treatments across the Forest. Mountain pine beetle strategy has to involve a prioritized landscape approach. Alternative C potentially can treat more than twice as many acres than Alternative B.

The USFS cannot blow this opportunity by selecting a middle of the road approach like Alternative B thinking that they can pacify the extremists who want nothing done. Choosing Alternative B to please these preservationists will not work so why not choose the Alternative C that makes the logistical sense. The USFS has to go all in and do try to protect both ecologic and economic integrity of the Black Hills.

Agency Response:

Comment noted.

Letter No: 21 **Comment No:** 3 **Resource:** Plan

Coburn, Bill

Comment:

I encourage the USFS to take the lead on putting together all of the stakeholders to help locate and develop both financial and physical resources to do this work. It is going to be very important that everyone understand that this is a landscape problem that respects no political boundary. It is going to be important that USFS work with both Wyoming and South Dakota to find the necessary resources to support mpb mitigation efforts on all lands being affected.

It is also going to be very important to keep this issue in the publics eye and give them hope that our efforts are not going to be in vain. We need to highlight our successes and build on them.

It is very important that the USFS choose Alternative C as the preferred alternative and then implement it as quickly as possible. With the recent passage of the "Farm Bill" there is great momentum to be able to get the resources to effectively fight this beetle. In closing, we are truly at an important crossroad for the BHNF. If the USFS chooses to only go half in by selecting Alternative B they are telling the public that they are more worried about their critics than they are about doing what is best for the ecological and economic environment of the Black Hills National Forest.

Agency Response:

The Forest has engaged interested parties throughout the development of the project. A scoping letter was mailed to approximately 333 potentially interested parties, including adjacent landowners, Tribes, and State and local governments, beginning on August 2, 2011. The Notice of Intent (NOI) to prepare an EIS was published in the Federal Register on Monday, August 8, 2011. This provided official notification that the public comment period for the MPBR Project Area would last for 30-days concluding September 7, 2011. A corrected NOI was published in the Federal Register on Thursday, February 23, 2012 to update the Deciding Official determinations. Three public meetings were held to explain the proposal to the public, and to take comment. A total of 268 members of the public attended these meetings, which were held in Sundance, WY; Hill City, SD; and Spearfish, SD.

Management activities proposed would occur on NFS lands. The Forest will continue the collaborative processes with adjacent landowners, county, State, other Federal agencies to treat those areas adjacent to NFS lands.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 21 **Comment No:** 4 **Resource:** Vegetation

Coburn, Bill

Comment:

I also have some concerns. There are many acres that even under Alternative C that will not be treated that have mountain pine beetle. The Mountain Pine Beetle Response Project was designed to fill the gaps in NEPA coverage of BHNF. Based on my evaluation there are still many acres that were not identified by the USFS that are not part of any project which are infested by mountain pine beetle. The USFS needs to have the authority and flexibility to go after these areas. One such area is the Hanna drainage just south of Cheyenne Crossing. This area was excluded from the Mineral, West Rim and Telegraph projects and now this project. Why? Other areas that concern me are in Telegraph where there were large areas not treated that are full of bugs. What is going to happen with them. The USFS has had the option already to go after them and has chosen not to. In retrospect, the USFS should have included the entire BHNF under this project.

In addition, the USFS is way behind on getting their NEPA clearance and Cultural Resource surveying done ahead of their existing projects especially in the Bear Lodge District. It is going to be incumbent on the USFS to make sure that these are done in a timely way so that they do not hold up on the ground treatments.

Agency Response:

See Agency Response to Letter 6, Comment 2 and Letter 15, Comment 2.

Cultural survey, reporting and documentation follow law, regulation and agency direction on procedure. The Forest is working on a programmatic agreement that would expedite the consultation process with the State Historic Preservation Offices.

Letter No: 21 **Comment No:** 5 **Resource:** Trans/Travel

Coburn, Bill

Comment:

There has been some noise about the miles of new road that will need to be built to do the necessary work. It is important that we do not get confused here. Getting the necessary work done is the number one goal. The amount of new road that is listed for Alternative C is actually very low when you look at how many acres or how much volume will be accessed. Under Alternative C for each mile of new road almost 1800 acres will be treated and 7 million board feet will be produced.

Agency Response:

See Agency Response to Letter 8, Comment 3.

Letter No: 22 **Comment No:** 1 **Resource:** Plan

US Department of the Interior
Bureau of Reclamation

Comment:

Thank you for sending us the Mountain Pine Beetle Project Environmental Impact Statement (EIS) to review and comment. Mr. Bob Stewart, Department of the Interior's Regional Environmental Officer for this action, replied earlier to your agency's request and indicated that the Department, including the Bureau of Reclamation, has no formal comments for the Draft EIS. The purpose of this letter is to follow up with information on Reclamation office contacts for the proposed project.

As you are aware, Reclamation owns and operates Deerfield, Pactola, and Angostura reservoirs located in the Black Hills. Our Rapid City Field Office, located in Rapid City, SD, performs the day-to-day operations of the three reservoirs. The field office is currently on your mailing list as a key contact for this project as well as other Black Hills National Forest programs and projects. We expect to continue to rely on our field office personnel to coordinate directly with the Black Hills National Forest for future pine beetle project activities that may be needed should the project be implemented. Please keep the Great Plains Regional Office in Billings, MT, on your general mailing list; however, since there is a website for the pine beetle project, we are not requesting future mailings of EIS related material.

Agency Response:

Comment noted. Information of your Rapid City Field Office contacts have been forwarded to District Environmental Coordinators.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 23 **Comment No:** 1 **Resource:** Plan

Weston County Natural Resources District

Comment:

The following are comments from the Weston County Natural Resource District (WCNRD) in response to the Mountain Pine Beetle (MPB) Response Project's Draft Environmental Impact Statement (DEIS).

Our comments are specific to our mission: to provide leadership in conserving the natural resources in the Weston County Natural Resource District by providing information, education and technical assistance to meet the needs of the users.

After reviewing the DEIS the WCNRD board would like to give their express support to Alternative C. WCNRD feels that Alternative C will provide the Forest Service with the flexibility to truly address the MPB epidemic in the most effective and efficient manner. Although both action alternatives speak directly to the purpose and need of the project, Alternative C has the potential to be the most economically feasible and contains enough flexibility to be effective. Alternative C will allow not only for treatment of MPB infested areas and improve forest health, but it will also decrease fuel loading and potential severe wildfire threats to the forest and local communities.

Agency Response:

Comment noted.

Letter No: 23 **Comment No:** 2 **Resource:** Vegetation

Weston County Natural Resources District

Comment:

Additional comments on Alternative C:

Alternative C allows for treatment of MA 4.2A Spearfish Canyon. WCNRD supports the addition of Spearfish Canyon and believes that with proper planning and utilization of an integrated pest management plan it will be possible to selectively treat stands with minimal environmental impact.

WCNRD believes that the landscape scale, flexible treatment approach in Alternative C provides that project with the necessary tools to be able to properly manage the MPB infestation. Due to the fact that the MPB epidemic is wide spread throughout the Black Hills it is imperative that the problem be treated on a landscape scale. This landscape scale treatment should employ the appropriate treatment type given the severity of the infestation, the access to the area, and most effective and efficient treatment option. Alternative C provides several treatment options which would be necessary to treat a landscape scale epidemic and provides the mean to employ an integrated pest management program.

Agency Response:

See Agency Response to Letter 6, Comment 4.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 23 **Comment No:** 3 **Resource:** Trans/Travel

Weston County Natural Resources District

Comment:

Additional comments on Alternative C:

Alternative C provides the ability to access areas as needed. WCNRD feel that this is crucial to the success of the project and will allow for better access of commercial / non-commercial treatment. We believe that caution should be exercised and road construction should be used in areas with low environmental impact, to ensure that watersheds and wildlife are protected. We would also like to encourage the Forest Service to use existing roads and rights-of-way whenever possible. In areas where road construction cannot be accommodated methods such as cut and chunk and cut pile and burn should be utilized.

Agency Response:

Design criteria (DEIS Appendix B) would be utilized to protect forest resources. More specifically pages B-5 to B-7 and B-12 discuss design criteria to protect watersheds during project implementation. Pages B-8 to B-11 discusses design criteria to protect wildlife during project implementation.

Page 110 of the DEIS states, although it is preferable to utilize existing on-the-ground NFSRs and unauthorized routes to perform management objectives, new roads may be constructed under Alternative C. In regards to rights-of-way, see the Agency response to letter number 8, comment number 3.

In areas where road construction cannot be accommodated harvest may still be possible. Timber may be skidded longer distances or forwarded to existing roads. As stated on page 37 of the DEIS, there are many options available for Integrated Pest Management.

Letter No: 23 **Comment No:** 4 **Resource:** Vegetation

Weston County Natural Resources District

Comment:

Additional comments on Alternative C:

WCNRD also believes that Alternative C would provide the best option to maintain overall forest health and provide a decreased risk of MPB infestation with the addition of landscape scale thinning. Research has shown that a reduction in basal area of a timber stand will reduce the MPB impact with in a stand. This treatment will result in less trees being infested and reduce the need for further treatments.

Agency Response:

Comment noted.

Letter No: 23 **Comment No:** 5 **Resource:** Plan

Weston County Natural Resources District

Comment:

In stating the above and after reviewing your DEIS at length we believe that Alternative C would provide the Black Hills with the most effective and efficient means to bring MPB populations back to endemic levels. WCNRD feels that in order to ensure that this Alternative will be effective it is of the utmost importance that implementation of this project during the early part of Fiscal Year 2013 (October 2012-May 2013) in order for treatment to occur prior to next MPB flight. The WCNRD Board is in support of the MPB Response Project DEIS and Alternative C pending these considerations. WCNRD would like to thank you for the opportunity to comment on the MPB Response Project DEIS. We believe that with proper planning and interagency cooperation we will be able to effectively decrease that population of MPB and save what is left of our Black Hills.

Agency Response:

Comment noted.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 24 **Comment No:** 1 **Resource:** Plan

Prairie Hills Audubon Society

Comment:

Comments on the Mountain Pine Beetle Response Project, Letter # 1 Spearfish Canyon.

In Alternative C the Forest Service proposes logging activity in the Spearfish Canyon 4.2A Management Area. We are concerned about cumulative impacts from logging, roads, mines and residential development.

Agency Response:

Management Area direction is discussed in the DEIS pgs 18-24. Cumulative effects are addressed in Chapter 3 by resource and Appendix C.

Letter No: 24 **Comment No:** 2 **Resource:** Hydro

Prairie Hills Audubon Society

Comment:

CONCERNS- WATER QUALITY

We are concerned about cumulative adverse water quality effects from mines, residential development and the potential logging/ and associated road building/rebuilding and any insecticide use in Spearfish Canyon drainage to the American dipper (*Cinclus mexicanus*) and fish. We wish the FS to discuss cumulative impacts from these sources. While the proposed Deadwood Standard mine will be high above on the rim, there may be underground hydrologic connections to the Canyons water and by-pass events may release to surface waters. Sedimentation via road runoff will be cumulative with both residential, mine and logging roads. The dipper needs good water quality and sufficient water flow/quantity. Sedimentation adversely impacts dipper.

Agency Response:

Middle Spearfish Creek Watershed has been added to the Target Watershed list for Cumulative Effects Analysis and is presented in the FEIS. Design criteria not allowing any new road/stream crossings on Spearfish Creek has been added. The analysis in the EIS concluded that beneficial and designated uses of Spearfish Creek should not be affected by sediment to affect water quality. As a result, dippers are not likely to be adversely affected by sediment from the MPBR Project. Additional discussion of cumulative effects to American dipper in Spearfish Canyon from Alternative C was added to the FEIS Wildlife Section.

Additional discussion of the cumulative effects to fisheries in Spearfish Canyon resulting from Alternative C has been added to the FEIS in the Fisheries section.

Letter No: 24 **Comment No:** 3 **Resource:** Wildlife

Prairie Hills Audubon Society

Comment:

We are also concerned about any cumulative effects of logging and mining to the Black Hills mountain snail (*Oreohelix cooperi*). The 2003 ESA listing petition filed by PHAS and other groups for this snail and the denial can also be reviewed on the SD USFWS web page. The Forest Service should review all the Black Hills mountain snail known locations in the Spearfish Canyon drainage, to see if any locations are in seeps or springs that could be affected by water quality issues arising from uses on top of the mesa/ridge, as well as activities in Canyon

Agency Response:

Mining can contribute point source impacts adding sediment a specific locations. Mining areas are generally historic sites and any new mining activities would have BMPs implemented to minimize or eliminate sediment added to streams (DEIS page 60).

Snails likely occur near seeps or springs in Spearfish Canyon. The analysis in the EIS concluded that beneficial and designated uses of Spearfish Creek should not be affected by sediment to affect water quality. Similarly, snails near seeps/springs are not likely to be adversely affected by sediment.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 24 **Comment No:** 4 **Resource:** Vegetation

Prairie Hills Audubon Society

Comment:

The FS should discuss whether any thinning proposed via this MPBRP would effect that pine screening both during day views and of lights at mine during the night. You should also look at the effect of fires or beetles on that screening. If the FS decides to do vegetation management on the rim, it should evaluate the potential to do some cover type conversions to aspen, oak or other tree/shrub types if possible, if vegetation on FS land is to be the screen - should that screen be a mix of different vegetations, with different disturbance risks?

Agency Response:

See Agency Response to Letter 8, Comment 5; Letter 9, Comment 4; and Letter 15, Comment 3.

Letter No: 24 **Comment No:** 5 **Resource:** Plan

Prairie Hills Audubon Society

Comment:

PHAS is opposed to the proposed logging in Spearfish Canyon in Alternative C and we hope you do not chose to log in the Canyon.

Agency Response:

Comment noted.

Letter No: 24 **Comment No:** 6 **Resource:** Vegetation

Prairie Hills Audubon Society

Comment:

Comments on the Mountain Pine Beetle Response Project, Letter # 2

Volunteers - use of

One of the potential issues that will follow either natural tree death from mountain pine beetles (MPB) or tree death organized by FS in anticipation/mitigation of future tree death from MPB -- will be a much more open forest. In that open forest lots and lots of seedlings will be hatching. If you wait 20-30 years for these trees to get older/larger you will have to pay someone to thin them with pre commercial thinning dollars. The federal deficit and financial woes of America may increase over time and funding may not be available.

We suggest you think about utilization of volunteers with clippers to weed small seedling pine trees when seedlings very small and folks could cut seedlings down with hedge clippers or grass clippers. We believe this could be a fun summer event for folks to engage in, within the WUI in specific areas the FS identifies for such an event. You could advertise it in newspapers and on social networks via the computers and figure out some way to make it work as fun summer volunteer events. The FS could pick out areas where the volunteers can't mess things up too much. You could provide directions - such as how many small trees left per square foot and turn folks lose to clip small trees and supervision during the first experimental events.

You may need to do NEPA on this and perhaps you could insert this into this MPBRP NEPA doc (that you may choose to do volunteer pine seedling clipping in some of your identified areas)

Agency Response:

Forest Service coordinates with all interested parties on land management treatment and area-specific needs.

MPBR action Alternatives B and C are addressed over an approximate 5 to 7 year period. (DEIS page 35 and 37).

The forest conditions change through time as described in the Affected Environment DEIS 112-113 and No Action (DEIS page 34-35) and management activities would be accomplished using a variety of contracting methods, cooperators (DEIS page 36).

MPB Response EIS Public Comment and Agency Response Report

Letter No: 24 **Comment No:** 7 **Resource:** Vegetation

Prairie Hills Audubon Society

Comment:

Comments on the Mountain Pine Beetle Response Project, Letter # 3 Some References

Please review and discuss the Black article: "Logging to Control Insects: The Science and Myths Behind Managing Forest Insect 'Pests'" 2005, Xerces Society, and the Black et al. article "Insects and Roadless Forests", 2010, Xerces Society. While the title has the word roadless in it, the text is relevant to all sorts of forest conditions, including areas that are not roadless. You have the 2005 article in the Rattlesnake Project administrative record, however both can be downloaded off of the Prairie Hills Audubon Society home web page.

Please review and discuss the Martin Simard et. Al. article "Annotated Bibliography for Forest Managers On Fire-Bark Beetle Interactions", 2008, University of Wisconsin, You have this document in the Rattlesnake Project administrative record Please review and discuss Grant Foster's "Pine Beetle Infestation and Fire Risk in the Black Hills", and Pine Beetle Infestation in the Black Hills", 2012.

"Pine Beetle Infestation and Fire Risk in the Black Hills", Grant Foster, Tempo Analytics, February 10, 2012, --- can be downloaded from the Friends of the Norbeck Web page - visit:

friends-of-norbeck.ning.com/profiles/blogs/pine-beetle-infestation-and-fire-risk

"Pine Beetle Infestation in the Black Hills, Grant Foster, Tempo Analytics, March, 1, 2012 can be downloaded from the Friends of the Norbeck Web page - visit:

friends-of-norbeck.ning.com/profiles/blogs/pine-beetle-infestation-in-the-black-hills

Please review the various opinions, (including those that contradict you) on the effectiveness of logging to fight outbreaks of MPB. Please fully disclose the range of science articles that don't support any conclusions you may come to in Buttes of increased fire risk after beetles.

Agency Response:

The Black articles have been reviewed. These are opinion pieces, not refereed scientific articles. The Xerces document is a compilation of reports and articles. It does not provide any new information. Review of the 2005 Xerces document is in the project file. The MPBR project area is not a roadless Forest.

The Forest Service has reviewed all offered literature. We acknowledge that there is some difference of opinion regarding MPB treatments. However, the Forest Service is proposing treatments to reduce MPB susceptibility based on local Black Hills research, knowledge and experience.

In the Black Hills, reducing stand density is a proven method for reducing susceptibility of stands to MPB caused mortality. Recent research continues to emphasize that overall, the lower the residual stand density, the greater the reduction in beetle caused mortality, in even and uneven aged stands (Schmid et al. 2007 and Negron et al. 2008).

Please see Forest Plan FEIS page III-385 and Appendix B-14 Table B5. Less dense stands are more likely to be resilient to mountain pine beetle outbreaks than dense stands. Please see: Schmid, J.M.; Mata, S.A.; Kessler, R.R.; Popp, J.B. 2007. The influence of partial cutting on mountain pine beetle-caused tree mortality in Black Hills ponderosa pine stands. Res. Pap. RMRS-RP-68 Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.

The factors of average tree size and stand density are those used to estimate risk of infestation. Other factors which include beetle populations in a given area, may impact the potential for infestation.

Treatments proposed to reduce MPB risk include both suppression and prevention treatments. See entomology report – RCSC_4_12 MPBR Allen Dec.2011.

Suppression treatments directly reduce live mountain pine beetle populations in an area. Sanitation harvesting involves the removal of green trees that have live beetle brood in them. These green trees are already dead, however, the foliage will not change color until the following summer. Trees removed in a sanitation harvest are treated; either moved to at least one mile from the nearest live host type or processed at the mill, prior to beetle emergence. While this is an effective method to reducing beetle numbers in an area, it does nothing to change stand conditions which are highly susceptible to MPB. Furthermore, given the expanse of this epidemic, from both a landscape scale as well as the high beetle population, it is not possible to insure or assume that all infested trees would be removed, each year, from National Forest and non-Forest lands.

Reducing stand density through thinning and other stated treatments will reduce the potential for MPB caused mortality within these stands as well as within the forest landscape as a whole.

The forest landscape contains a significant amount of private lands adjacent to project areas and have tremendous values at risk. The MPB epidemic is an imminent threat to those values. Therefore, substantial landscape level suppression and prevention treatments are proposed. These treatments were designed by Entomology and Silviculture professionals with extensive experience in these fields including extensive local experience. These treatments have been shown to be effective, especially when conducted together on a landscape scale.

Letter No: 24 **Comment No:** 8 **Resource:** Plan
Prairie Hills Audubon Society

Comment:
Comments on the Mountain Pine Beetle Response Project, Letter # 4

We attach our scoping comments to this Prairie Hills Audubon Society MPBRP DEIS comment letter and incorporate these scoping comments by reference. Many of the concerns are not addressed or not addressed adequately, thus we raise the concerns again.

Agency Response:
Comment noted.

Letter No: 24 **Comment No:** 9 **Resource:** Recreation
Prairie Hills Audubon Society

Comment:
Comments on the Mountain Pine Beetle Response Project (MPBRP), Letter # 4

We send these documents "Statistics on ROS and Visuals 07" and "ROS revised work - - rtf.rtf" as attachments, that we may reference in later letters and we also provide to you as a reference. These documents are dated, in that the values are before PHASE 2 Amendments. In PHASE 2 some acres (about 2,000 acres) were added as RNAs ,for which 6 of the 8 RRNA areas had SPMN class assigned and which have high scenic integrity objectives.

We have a long term problem with how the Black Hills National Forest manages for Recreational Opportunity Spectrum (ROS), which failure ties backs to the planning failures in the Black Hills National Forest Land and Resource Management Plan ROS inventory failures and continues through Phase 1, Phase 2, Travel Management and on to the MPBRP.

Agency Response:
Comment noted. The Recreational Opportunity Spectrum, as the commenter mentions, is addressed in the Black Hills National Forest Land and Resource Management Plan. Forest Plan level decisions, such as a Management Area's ROS characteristics, are outside the scope of this project.

Letter No: 24 **Comment No:** 10 **Resource:** Vegetation
Prairie Hills Audubon Society

Comment:
When you do logging especially "cut and chunk" logging or create new roads you will be adversely affecting potential future SPNM areas or current SPNM areas. Some alternatives propose roads in such areas and all action alternatives have logging in them.

Agency Response:
MPBR project is consistent with the Forest Plan as amended. Specific design criteria (DEIS Appendix B) will be followed to limit impacts from road construction.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 24 **Comment No:** 11 **Resource:** Recreation

Prairie Hills Audubon Society

Comment:

When the SMS requires the sensitivity levels to be highest for highly traveled routes, there is a "Catch 22". Most of the highly traveled areas are seen from vehicles traveling at speed, often with set backs created by the road side and the views speed by in the car window. This experience is different from those of hikers, whose view of the scenery is much slower and more intimate/close up way. The view from a car may be more looking to the far or mid distance, but the hiker's view may more on the for-ground. The hiker may highly value the scenery and invest lots of time and effort in getting to and finding back country areas. The FS should value the scenery experience of the back country user as well as the folks zooming by on the highways.

The MPBRP has huge potential to adversely impact the back-country hiking experience. We hope you will not do so and will inventory your back country areas, create priorities and develop mitigations to protect the "evidence of humans" criteria in the back country areas. People who seek back country areas, may not be using your trail systems, but may be using old roads and or wildlife or livestock trails. You may not have adequate knowledge of all the back country area trails, if you just look at the formal trail system.

We have special concern for protecting visuals and "evidence of humans" in all areas around roadless areas, RNAs, Special Botanical areas, Norbeck, National Parks etc. If an area already has some protection, folks are likely to go to that area and the areas around it, when seeking the back-country and pristine areas.

Agency Response:

The Scenery Analysis disclosed the effect of this project on both the traveler on the highways and the hiker along a trail. The duration of viewing time, as well as the proximity, of the proposed treatment is longer & closer.

The recreation analysis disclosed the impacts on each management area's ROS characteristics and the potential users of the affected management areas. Design criteria, and any recommended mitigations, were made so MA's with backcountry ROS characteristics are maintained. If monitoring determines the need for additional mitigation measures, they will be considered.

Letter No: 24 **Comment No:** 12 **Resource:** Visuals

Prairie Hills Audubon Society

Comment:

Comments on the Mountain Pine Beetle Response Project, Letter 6 - Visuals/Recreation. We especially direct the scenery staff to section on Visual Quality from pages 312-325. We also incorporate by reference Michael Melius's intervention on the visual quality issues.

Agency Response:

Information noted applies to the Forest Planning process and does not apply to this site specific project.

Letter No: 24 **Comment No:** 13 **Resource:** Visuals

Prairie Hills Audubon Society

Comment:

The BHNFS SIO do not reflect the scenic integrity as explained on page 244 of the MPBRP DEIS. The 1997 SMS sensitivity level analysis was simplistic - not what you describe in the 2012 MPBRP DEIS. In 2012 DEIS you reference the scenic class and scenic attractiveness layers. The FS staff had in the recent past said the FS lost the overlay and coverages (made by the computer for the 1996 SMS analysis). Have you found them again? But we have 8 and half by 11 inch copies and have given them to FS staff in the past and can give them again, if you want to touch base with reality of what your SMS is really based on. We believe the threats to scenery from this project are substantial and you are tiering to a totally inadequate Forest Plan.

Agency Response:

The Scenic Integrity Objective (SIO) percentages (DEIS page 244), were derived from the SIO GIS layer (developed during the 1996 LRMP planning process). This layer displays the minimum Scenic Integrity Objectives, allowed by the LRMP.

Additional Scenery GIS layers used in the project analysis (DEIS page 246) included Scenic Class, Scenic Attractiveness, and three (3) Landscape Visibility layers.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 24 **Comment No:** 14 **Resource:** Visuals

Prairie Hills Audubon Society

Comment:

The description of "cut and chunk" effects on the landscape are inadequate. Cut and chunk logs will be highly visible in the foreground landscape for an exceeding long time. The shapes - not just the color - will be evident and will result in low SIO, as long as the logs are visible, which will be a very long time. This is an extensive impact on the "evidence of humans" to the landscape and an effect that will limit ROS class eligibility due to adverse impacts to the "Evidence of Humans Criteria" and drop down any area with such impacts to at least roaded natural ROS class, if the FS actually reads and follows the ROS Users Guide's inventory guidelines (which the BHNH never actually followed when doing the ROS assignments for 1997/1996 LRMP).

This would also have an adverse impact on any future Wilderness or Wild and Scenic River reviews during future Plan revisions. "Cut and chunk" should not be done in any areas believed to have importance for backcountry recreation users. Please discuss the effects of "cut and chunk" on the "evidence of humans criteria."

Agency Response:

The Scenery Section (DEIS page 246) has been clarified to include the effects of "Cut and Chunk."

See Agency Response to Letter 24, Comment 9.

Letter No: 24 **Comment No:** 15 **Resource:** Visuals

Prairie Hills Audubon Society

Comment:

The visual effect of "chipping" is not discussed. While chipping has the least immediate visual impact, and may perhaps be most quickly recovered, the DEIS should discuss it's visual impact and longevity of such impact.

It is our experience that burning of slash piles is never complete and after burning small log debris are left on the site that don't disappear very fast. The folks who burn, should be required to return and rake the left over log debris into a center pile and burn again, if the log debris occur in a meadow or other place where small left over log debris don't belong visually, and any area with a high ROS class assignment or any place where lots of post burn debris are left.

I don't see how the landscape architect can decide which SIO belongs to each basal area objective. SIO/basal area would be subjective to the geographic features of the area, the age of the residual pines and the understory would be also be a factor. The SIO in a for-ground view can be very different from a long distance view.

Agency Response:

The Scenery Section has been clarified to incorporate the effects of "Chipping."

Forest personnel have been reviewing the results of vegetation treatments, and their ability to achieve SIOs, over the past 12 years. The Scenery Section (DEIS page 257 "Commercial Thin treatment ...") points out that the results can vary depending on size of the treatment area, topography, and residual trees (of all sizes).

MPB Response EIS Public Comment and Agency Response Report

Letter No: 24 **Comment No:** 16 **Resource:** Vegetation

Prairie Hills Audubon Society

Comment:

The visual effects of fire or MPB or of thinning or clear cuts are all temporary. The vegetation changes, in response to the opportunities created by the disturbance, and thus the visuals will change. A black and grey ash covered post fire landscape today transforms with time to a lush meadow with shrubs - the view are transitory. Some of the most beautiful areas in the Hills are a result of disturbance, -- spruce, aspen stands and post fire meadows can have exceptional beauty. The FS timber practices, which require recovery of pine within 5 years (due the NFMA requirements), won't create these large meadows or type conversion to aspen/birch. The scenery review should look as these disturbance events as relief from the NFMA requirement of reseeded with pine in 5 years or the limits for cover type conversions in the Forest Plan. It is from these non-human/non forest service disturbance events that we will get the visual diversity of spruce, meadows and aspen and oak, not from the FS timber program, which seeks to perpetuate commercial (i.e. pine) stands.

Agency Response:

Comment noted.

The Phase II Amendment to the Forest Plan prescribed more acres of Structural Stages 1 and 2 (openings & seedlings-sized trees), aspen and birch. As a result, human controlled disturbance in the form of commercial and non-commercial tree cutting may remove pine in and around aspen and birch stands, to allow them to flourish. NFMA requires regeneration harvests to be restocked within 5 years. The natural prolific regeneration of the ponderosa pine forest across the Black Hills is evident (Shepperd & Battaglia 2002). The Scenery Section (DEIS page 246) has been clarified to include effects of disturbance.

Letter No: 24 **Comment No:** 17 **Resource:** Recreation

Prairie Hills Audubon Society

Comment:

We incorporate by reference the Sept 30th, 1997 Biodiversity Associates et. al. appeal of the Revised Land and Resource Management Plan for the BBNF. We especially direct the FS to pages 268-312 for the section on recreation and roads and also the section on Wilderness on pages 163-204.

We have also sent you earlier tonight the attachments "Statistics on ROS and Visuals 07" and "ROS revised work - - rtf.rtf". All of these documents explain the problems with the ROS inventory done by the Black Hills for the 1997 Land and Resource Management Plan Revision. The failures to do a proper ROS inventory and to properly assign ROS Classes is a huge problem on this forest. The backcountry users who want pristine landscapes are neglected.

Much of the protected areas for recreation purpose are near high density housing areas and thus are near WUI and thus will be logged to mitigate beetles or fire. The backcountry areas away from the WUI are often assigned to 5.1. It is an irony. The backcountry areas that due to distance from development, that the FS could leave alone and not treat for beetles or fire, are ironically frequently not put into recreation designations. You need to put areas that are away from homes and away from WUI areas into recreation designations that allow for protection the back-country values and allow for these areas to be left to natural processes. You need to match large un-roaded back country areas with low "evidence of humans" visual goals. You need to make this planning part of the MPRP

Agency Response:

See Agency Response to Letter 24, Comment 9.

Management Areas are addressed at the Forest Plan level. The ID Team reviewed Management Area direction for the Project in the DEIS, pages 18-19.

Letter No: 24 **Comment No:** 18 **Resource:** Vegetation

Prairie Hills Audubon Society

Comment:

We especially want the area around Sand Creek Roadless Area protected and kept as wild looking as possible.

Agency Response:

See Agency Response to Letter 15, Comment 2.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 24 **Comment No:** 19 **Resource:** Plan

Prairie Hills Audubon Society

Comment:

Prairie Hills Audubon Society objects to both alternatives B and C. We would prefer a wider range of alternatives and for the FS to be offering some of the " Alternatives Considered but Eliminated" in an alternative D -- such as exploring ideas such as just on cutting in WUI areas or just in areas close to structures, converting stands to aspen/birch, staying out of more management areas and out of more special areas and not cut big trees etc.

We however object to Alternative C much more than Alternative B and are especially concerned that you don't log in Spearfish Canyon, so as to provide protection for the American dipper and Black Hills Mountain snail.

Agency Response:

The MPBR project analysis identified three key issue (DEIS pgs 29-31). All scoping comments received were considered in determining key issues and possible alternatives to the proposed action.

The HFRA Section 104(c)(1)(C)(i)(ii) specifies consideration of additional alternative(s) meets the purpose and need of the project. Some of the comments recommended actions that were outside the scope of the purpose and need, some were actions that could be incorporated into design and mitigation measures included in the proposed action, and some were incorporated into an additional alternative (Alternative C) for detailed study.

Alternative C was developed in response to public comments received during the scoping period. Specifically, it responds to concerns about not treating more 'high risk' stands on a landscape basis, treating in advance of MPB, and addresses concerns about safety and access on roadways (DEIS pg. 36).

Seven alternatives were considered, but not in detail (DEIS pgs 41-44).

See Agency Response to Letter 24, Comments 2 and 3.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 24 **Comment No:** 20 **Resource:** Plan

Prairie Hills Audubon Society

Comment:

Comments on the Mountain Pine Beetle Response Project, - letter 8

On page 33 of the DEIS on MPBRP DEIS it indicates that the determination letter saying that the MPBRP qualifies as an "authorized fuel hazard reduction project" under HFRA sec 102(a)(4) is in the Project File. As we can't see that letter we can't comment on it's adequacy or correctness.

We request that it be placed in the FEIS, so folks can review it to see if this project qualifies for HFRA. We quote the referenced section below.

" SEC. 102. AUTHORIZED HAZARDOUS FUEL REDUCTION PROJECTS.

(a) AUTHORIZED PROJECTS.-As soon as practicable after the date of enactment of this Act, the Secretary shall implement authorized hazardous fuel reduction projects, consistent with the Implementation Plan, on-

Š. (4) Federal land on which windthrow or blowdown, ice storm damage, the existence of an epidemic of disease or insects, or the presence of such an epidemic on immediately adjacent land and the imminent risk it will spread, poses a significant threat to an ecosystem component, or forest or rangeland resource, on the Federal land or adjacent non-Federal land; and " (emphasis added)

We request that you provide a definition of epidemic that you plan to use and that the areas logged are truly in epidemic conditions or immediately adjacent to such.

We are also concerned that you meet other requirements of HFRA, such as logging of small but not large trees.

Agency Response:

The MPBR Project is an authorized project under Section 102(a)(4) of the HFRA. The letter of determination that an epidemic is occurring has been added in Appendix D of the FEIS.

The definitions below are from Schmid et al 2007. Generally, going from endemic to epidemic occurs when there begins to be groups of 5 or more trees showing up, particularly in consecutive years.

While MPB population level definitions are usually generalizations because precise knowledge of population numbers is difficult to obtain, some improvements in the definitions can be made. Drawing from the previous definitions and using the frequency of MPB-attacked trees per year from our five locations, the following definitions are proposed:

Endemic: usually <1 but occasionally two MPB attacked trees per 5 or more acres per year. Most of the time, the number of MPB-attacked trees will be <1 tree per 10 or more acres. However, an endemic MPB population may attack two adjacent, narrowly spaced trees so two trees per 5 acres is recognized as being endemic. In endemic situations, one of the two trees will probably be a pitchout and pitchouts may be found more frequently than successfully attacked trees.

Incipient Epidemic: two or more groups of three to four MPB-attacked trees per group on 40 to 320 acres for 2 to 3 consecutive years. The appearance of a single group of three or four infested trees in any particular year (for example, Sartwell and Stevens [1975] definition) may signal an incipient epidemic, but when considered over a landscape of 20 to 50 acres, it might be a 1-year anomaly. The incipient level represents the transition from endemic to epidemic but recognizes that at the beginning of an epidemic, MPB populations do not usually increase rapidly because the number of trees per group increases slowly and infested groups have not coalesced.

Epidemic: several groups of four or more MPB attacked trees per group on 20 to 320 acres over 2 to 3 consecutive years, especially if the number of trees per group is increasing and groups are coalescing. As for the incipient epidemic definition, the appearance of two to three groups on 50 acres for 1 year may be an anomaly, but their continued presence in succeeding years indicates otherwise. In contrast to the incipient epidemic condition where numbers of infested trees are increasing relatively slowly, the number of infested trees per group in specific stands in the epidemic condition may increase tenfold.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 24 **Comment No:** 21 **Resource:** Vegetation

Prairie Hills Audubon Society

Comment:

The Appendix B to the Black Hills National Forest Phase 2 Amendment DEIS has on page Appendix B-14 a graph called Table B-5, which shows Key Variables of Structural Stage, Fire Hazard and Insect Hazard". This chart has been used a lot since 2005 to justify timber sales, such as on page 74 of the Draft Telegraph Project DEIS.

This Forest Plan Amendment chart does not seem consistent with the fire hazard ratings projected for MPB affected stands in the MPBRP DEIS.

Please explain why it does not apply to MPB effected stands, but applies to stands such as those described in the Telegraph DEIS. Why have you changed the charts used to rate fire hazard from that in the Phase 2 appendix?

On page vii of the MPBRP DEIS you indicate that MPB leaves 50 % of SS 4 C changed to 2 or 3A. The other 50 percent would be 4A and 4 B. If we look at the chart in the Appendix B-14, this is a progression to lower fire hazard. Why are you saying it is a progression to higher fire hazard, which does not match the Phase 2 appendix chart.

Agency Response:

The fire ratings are still the same for each structure stage. 4C=very high, 2 and 3A=medium, 4A is medium to very high depending on treatment type and dbh of the trees, and 4B is high to very high depending on dbh and treatment type.

Page vii does not state the project area is progressing to a higher fire hazard it just lists the structure stages post treatment. Refer to Table 3-29 and Figure 3-12 Alternative C Fire Hazard Rating on p. 144 of the DEIS for a more complete breakdown of structure stages and fire hazard ratings. The existing fire hazard rating is high or very high for the project area. Post treatment most of the project area will have dropped to a rating of moderate with a much smaller amount being high to very high. This is consistent with Table B-5 of Phase II Amendment.

Letter No: 25 **Comment No:** 1 **Resource:** Plan

Spearfish Forest Products,
Derek Larsen

Comment:

Thank you for the opportunity to submit comments on the MPBRP DEIS. As a forester in the Black Hills the success of this project is very important to me. After reviewing the alternatives I believe that alternative C is the best option to achieve the goals of this project. However there are still a few aspects of alternative C that could be improved.

Agency Response:

Comment noted.

Letter No: 25 **Comment No:** 2 **Resource:** Vegetation

Spearfish Forest Products,
Derek Larsen

Comment:

However there are still a few aspects of alternative C that could be improved.

First and foremost the total acreage proposed for treatment in alternative C falls far short of the acreage identified as high risk in the Black Hills. With a growing MPB epidemic and the uncertainty of what stands the epidemic will affect, limiting the acreage of this project will only limit its effectiveness. Expanding the alternatives to include all high risk stands will allow for more opportunity to apply integrated pest management and a quicker response changes in MPB activity.

Agency Response:

See Agency Response to Letter 6, Comment 2.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 25 **Comment No:** 3 **Resource:** Plan

Spearfish Forest Products,
Derek Larsen

Comment:

Finally, I feel that the timing of this project is too slow. The timing of implementation is important to the success of this project. This project needs to be ready for implementation no later than 10/1/2012.

I would like to again show my support for Alternative C, and encourage the Forest Service to choose this Option. Alternative C was developed based on the comments provided by the public. It is time for the FS to show that the MPB epidemic is their top priority by implementing an alternative with the best chance of success.

Agency Response:

HFRA does provide for expedited administrative procedures for authorized projects, such as MPBR Project. This however does not change the required resource analysis of project impacts under NEPA.

See Agency Response to Letter 6, Comment 7.

Letter No: 26 **Comment No:** 1 **Resource:** Plan

Spearfish Forest Products,
Paul Pierson

Comment:

I would first like to thank you for the opportunity to comment on the MPB Response Project (MPBRP) DEIS. I support the use of HFRA authority for this project and I support Alternative C.

Alternative C meets the purpose and need of the project far better than the other alternatives because:

- It allows for 2.5 times more acres to be commercially/non-commercially harvested to meet the purpose and need than alternative B, which is the most cost effective approach to meeting the purpose and need;
- It allows for reducing the basal areas of stands in and adjacent to mpb infestations, which is the proven way truly meet the purpose and need;
- It allows for new system and temporary road construction which will be necessary to adequately address the epidemic. I support the estimated number of miles for new roads. The resource damage of not stopping the epidemic will far outweigh the disturbance caused from the construction of roads;
- It allows for the most flexibility and adaptability for implementation. Flexibility is the most important tool that your R.O.D on this project will give us in saving the BHNf.

Agency Response:

Comment noted.

Letter No: 26 **Comment No:** 2 **Resource:** Vegetation

Spearfish Forest Products,
Paul Pierson

Comment:

Alternative C should be modified to be more effective in the following way:

- Include more acres. If we are going to be effective, we must stop handcuffing ourselves. There is no reason for this project to have already shrunk in size. There are areas that have been left out that have no NEPA coverage for sanitation (i.e. East Spearfish Creek area).

Agency Response:

See Agency Response to Letter 6, Comment 2.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 27 **Comment No:** 1 **Resource:** Fire/Fuels

Friends of the Norbeck

Comment:

Fire Risk has been Greatly Exaggerated

The MPBRP Draft EIS continues the hysteria over dead trees, and so-called “unhealthy forests” creating “catastrophic” fires. The basic theme is that fire suppression has led to fuel build-ups that are supporting unnaturally large blazes. Unfortunately, most of this perspective is based on “old” science or the misapplication of fire ecology from other places like the Southwest U.S. ponderosa pine forests. Inappropriate science has led to inappropriate responses, including many who argue we should log our forests to reduce fire hazard or to “restore” forest health. The Mountain Pine Beetle Response Project continues to cite these “old” science superstitions, and uses alleged fire risk as the driver of the proposed actions:

The focus of the actions proposed is to manage the vegetation to reduce the threat to ecosystem components, including forest resources, from the existing insect and disease (mountain pine beetle) epidemic and to reduce hazardous fuels in order to minimize the potential for large-scale severe wildfires. [DEIS at ii]

Agency Response:

Fire “risk” is defined as those uses or human activities which have the potential to result in a wildfire ignition. Fire risk for the project area was determined using fire history occurrence data for the forest. The majority of fires on the forest are lightning caused. Therefore there will always be a risk of fires occurring.

Fire “hazard”: is a fuel complex that determines the ease of ignition and the resistance to control (see Chapter 3 of the EIS). Essentially, if a fire were to start, what type of fire could be expected. Trees killed by MPB add to the fuel complex. Fire hazard specific to this project area was analyzed per BHNF Forest Plan direction (FEIS-III-349 and associated Fire Rating guide, August 2011

Black Hills National Forest fire history records from 1910-2012 exhibits that the number of fire starts and number of fires that escape initial attack has remained fairly constant. The records also show that prior to 1970 there were 21 large fires on the forest. Since 1970 there have been 63 large fires. This demonstrates that fires have been progressively increasing in size and are becoming more difficult to control. In the early 1900’s the average fire size was less than 1000 acres. In recent years average size has increased to over 8000 acres.

Historically the Black Hills was in a mixed severity fire regime that experienced frequent low severity surface fires and infrequent high severity stand replacing fires. (USDA Forest Service, 2005i) Recent studies support the idea that there has been an increase in density of ponderosa pine regeneration in the understory largely due to suppression of wildfires over the past century. (Battaglia, Smith, and Shepperd, 2009) This change in fuel and canopy structures has resulted in larger, more frequent severe crown fires. (Brown and Cook, 2006) When the amount of fuel increases and fuels profiles become more horizontally and vertically continuous, there is a greater chance of crown fire initiation and higher resistance to control which increases fire hazard based on ease of ignition and resistance to control.

Photographs comparing forest structure in 1874 and in the same locations in recent years are illustrated in Paul Horsted’s book “The Black Hills: Yesterday & Today”. These photographs show an increase in ponderosa pine growth and a more closed canopy structure across the forest.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 27 **Comment No:** 2 **Resource:** Vegetation

Friends of the Norbeck

Comment:

Assumed Increased Fire Risk Following Beetle Outbreaks Is Erroneous

Friends of the Norbeck recently commissioned professional statistician Grant Foster, of Tempo Analytics, to look at possible relationships between large fires, on the one hand, and weather, logging, and beetle tree-mortality levels on the other.

We provided Mr. Foster with a century of data from the Black Hills National Forest, 1910-2009, and asked for his professional statistical analysis of any possible relationships between these variables and large fires. We had no further input into his study.

On February 10, 2012, Mr. Foster completed his analysis, and produced the attached detailed "white paper" (28-pages, 2.7mb pdf), Pine Beetle Infestation and Fire Risk in the Black Hills.

Agency Response:

Comments noted in reference to paper by Foster.

See Agency Response to Letter 33, Comment 9.

The MPB is a native insect with a long history in the Black Hills. Extreme weather events are necessary to have a large impact on beetle populations. Throughout this epidemic we have seen no evidence of weather conditions, wet, dry, hot, cold, playing a part in beetle population increases or decreases. In fact some of the largest increases and expansions of this epidemic have come during cold and wet years. The single largest factor driving MPB attack and increase in the Black Hills is stand conditions, particularly stand density. The best way to reduce, not eliminate, beetle caused mortality is through reducing stand densities across large areas.

Letter No: 27 **Comment No:** 3 **Resource:** Fire/Fuels

Friends of the Norbeck

Comment:

Beetle Outbreaks Reduce Canopy Density, and so also Crown Fire Risk

While it may seem "intuitively obvious" that dead trees will lead to more fires, there is little scientific evidence to support the contention that beetle-killed trees substantially increase risk of large blazes. In fact, dead trees don't automatically lead to more fires since climate/weather events, not fuels, largely control large blazes (Black et al., 2010). If the climate/weather isn't conducive for fire spread, it doesn't much matter how much dead wood you have piled up, you won't get a large fire. It has been hypothesized that the risk of fire may increase only during and immediately after outbreaks of bark beetles when the dry red needles are still on the trees (Romme et al., 2006). However, Kulakowski and Veblen (2007) found that ongoing outbreaks of mountain pine beetle and spruce beetle did not affect the extent and severity of fire and suggested that changes in fuels brought about by outbreaks may be overridden by climatic conditions. Tinker et al. (2009) examined fuel conditions for 35 years following outbreaks of mountain pine beetle in Yellowstone National Park. They documented reduced canopy moisture content after an outbreak, which was coupled with reduced canopy bulk density.

Tree flammability is not constant, but varies over time. It is highest immediately after beetles kill the tree, and brown needles and small branches remain on the tree. However, after a winter or two, the needles and smaller branches are knocked from the trees, and their flammability goes way down since the remaining upright snags are actually quite resistant to flames. This is not recognized in the Mountain Pine Beetle Draft EIS.

Thus, the immediate threat from bug-killed trees is not likely to be great, especially if the climate/weather is wet. It is generally only after understory trees, released by the death of more mature canopy trees, grow taller and provide a ladder into the canopy that fire hazard again increases. These ladder fuels, along with any dead snags that have toppled to the ground, can potentially lead to greater fire hazard. But this process takes decades, a timeline completely missing from the MPB Response Project proposal.

Potential is not the same as occurrence. Areas at more moist, higher elevations simply do not dry out enough to burn well in most years. That is why, for example, pine forests in the Harney Range of the Norbeck Preserve typically have long rotations between burns—on the order of hundreds of years in some places. Thus the presence of dead trees does not necessarily lead to fires. The probability of any particular bug-killed stand being ignited by lightning (or humans) during the few years out of a hundred when they are dry enough to carry a large blaze is actually quite small. So even if there is a lot of dead wood on the ground, that doesn't mean there will automatically be large blazes. Probability is important—and the probability is low on any given acre.

The dominant fire regime for the Black Hills is mixed severity, which includes both low severity surface fires as well as high intensity stand-replacing fire. (Norbeck DEIS, USFS 2009 at 175). Thus, it appears that historically wildfires would naturally thin areas to low density (like 4A) via surface fires, as well as completely reverting stands to early successional stages (like 1 or 2) via stand-replacing fires. This begs the question: if beetles are naturally reducing stand densities to levels that would historically be

maintained by wildfire, why is emergency logging and thinning necessary?

The Draft EIS argues (at 17) that the “ongoing MPB epidemic is making this situation worse by replacing live, green standing fuels with large amounts of dead and dry fuels. These dead fuels are slow to decompose in this dry environment and would be a fire hazard for the next several decades.” No explanation is given as to how all the areas to be included in the Project (structural stages 3B, 4B, 3C and 4C) are all “already rated as having high wildfire hazard.” No explanation is given as to why converting a given fuel component from live to dead fuel load raises the overall fire hazard rating. No explanation is given as to why dead trees that have fallen to the ground will remain “dry” fuels. The implication here is that commercial thinning will reduce wildfire severity in the MPB Response Project area. The Forest Service does not provide any reference to any published, peer-reviewed scientific study that supports this position in a mixed conifer, mixed severity fire regime. See Brown et al (2004) (explaining the difference between different forest types and fire regimes).

Another peer-reviewed, published scientific study found that dense mixed conifer forests burned with much lower severity than open forests (Odion et al 2004). Scientists have repeatedly expressed similar concerns regarding the scientific controversies over implementing commercial logging ostensibly to reduce wildfire risk. See e.g. *Sierra Club v. Eubanks*, 335 F.Supp.2d 1070, 1077-79 (E.D. Cal. 2004); *Sierra Club v. Bosworth*, 199 F.Supp.2d 971, 979-981 (N.D.Cal. 2002).

In order to comply with NEPA, the Forest Service must disclose the scientific controversy over using commercial logging to reduce wildfire risk to the public in the body of the Mountain Pine Beetle Response Project EIS. 40 C.F.R. § 1502.9(b). It must respond to the responsible scientific viewpoints noted above and elsewhere in the literature, that commercial logging will increase fire risk, not decrease fire risk. 40 C.F.R. § 1502.9(b). In addition, the Forest Service must demonstrate that it has conducted a literature search of the best available science on commercial thinning for wildfire risk reduction in mixed severity fire regimes and considered that science in the planning process for this Project.

Agency Response:

The recent “Review of the Forest Service Response: The Bark Beetle Outbreak in Northern Colorado and Southern Wyoming, USDA Forest Service Rocky Mountain Region and Rocky Mountain Research Station, 2011” states:

The specifics of how beetle outbreaks affect the likelihood that a fire will start is poorly understood and a topic of current research. The increased presence of fine, dry surface fuels implies greater number of successful ignitions. The degree to which mortality affects fire potential depends on the stand structure¹ prior to the bark beetle outbreak, and the level of stand mortality. Owing to the complexity of the number of sites, beetle outbreak dynamics, and scientific limitations it is only possible to describe expected future fire potential in a general way. Management decisions should be based on local expert knowledge cognizant of the context for the decision.

Recent observations by fire managers on fires in western conifer forests confirm the influence of bark beetle - altered surface and canopy fuels on fire behavior and fire suppression operations (Stiger and Infanger, 2011). Firefighters have reported experiencing extreme fire behavior in currently infested stands with prolific spotting occurring in areas with heavy surface fuel buildup (Church et al., 2011). Additionally firefighters have noticed that mountain pine beetle-affected trees tend to break off at mid-tree and uproot more easily than other dead trees. Stiger and Infanger (2011) urge a higher level of vigilance for firefighters exposed to bark beetle-affected forests. The same can certainly be said for members of the general public as well (Alexander et al., 2012).

Safe and effective control of wildfires involves a multitude of issues (Alexander, 2000). Alexander and Stam (2003) have discussed fire suppression considerations beyond crown fire behavior that may be affected in post bark beetle-altered ecosystems and that can still lead to other aspects of extreme fire behavior. For example, trees in various stages of decay will exhibit sloughing bark, loose branch material of various sizes, and persistent cones in the canopy providing abundant material to be lofted into convection columns for short and long range spotting (Rothermel, 1994). Coupled with the readily available firebrand material in bark beetle-affected forests is the receptive fuelbeds.

A bark beetle outbreak starts slowly, builds up to a peak over 5 to 10 years, and subsides. A beetle-killed stand, then, may have unattacked live trees, killed-but-still-green trees, red-needle trees, and gray trees. “We say ‘red-stage stands’ and ‘gray-stage stands’ so it’s easier to grasp conceptually,” Simard says, “but you never have 100-percent mortality in a single year. So, by the time the stand enters the so-called red stage—that is, when the majority of trees have red needles—about half the canopy fuel is on the ground” (Fire Science Digest pg 5).

Does less fuel in the canopy mean more on the surface? Yes, but not right away. “We did not observe a short-term increase in dead surface fine fuels or fuel bed depth in the gray-stage stands (3 to 5 years postoutbreak),” Simard and his colleagues noted. The increase in surface fuels comes later, in 25 or 30 years, when the dead trees have fallen (Fuels and fire behavior dynamics in bark beetle-attacked forests in Western North America and implications for fire management, Michael J. Jenkins a,†, Wesley G. Page a, Elizabeth G. Hebertson b, Martin E. Alexander a,c, a-Department of Wildland Resources, Utah State University, Logan, UT, USA, b- USDA Forest Service, Intermountain Region (R-4), Forest Health Protection, Ogden, UT, USA. c-Department of Renewable Resources and Alberta School of Forest Science and Management, University of Alberta, Edmonton, Alberta, Canada T6G 2H1).

Snags constitute a major safety hazard for fire fighters. Safety concerns will reduce fire fighter effectiveness leading to larger fires.

Heavy downed logs slow fireline construction. The increased resistance to control implies fires will either grow larger or require more suppression resources.

Heavy downed logs are associated with extended burning, greater soil heating, sustained smoke production and extended fire mop-

up, particularly in warmer-dryer forests.

Commercial logging activity will follow Forest Plan Standards for treatment of activity generated fuels.

The fire return interval ranges from about 11 years in the southern part of the Forest to 40 years in the northern part, with an average of about 26 years. The mixed-severity fire regime and associated variability in fire effects is consistent with the Black Hills fire history reconstruction that lead to conclusions about the occurrence of frequent, low-severity surface fire with infrequent, high-severity stand-replacing fire (Brown and Sieg 1996, Shinneman and Baker 1997, Brown and Sieg 1999, Brown et al. 2000, Arno 2000, Brown 2003). In summary, these studies would indicate that the fire regime in the forested areas of the Black Hills might be best described as a mixed-severity fire regime (10 - 100 or more years).

Please refer to the USDA, Black Hills National Forest, Final Environmental Impact Statement, Phase II Amendment pg. III-340 for further discussion regarding Mixed Fire Regimes in Black Hills Forest including references to 4 peer-reviewed scientific studies.

Please refer to Brown et al (2008) pg.1997 which states "Changes in canopy structure, especially the lowering of canopy base heights, will require that stands be initially thinned to restore structure to the point that fire severity can be better controlled..."

See Agency Response to Letter 27, Comment 1 regarding risk and hazard.

Letter No:	Comment No:	Resource:
27	4	Fire/Fuels

Friends of the Norbeck

Comment:

Effectiveness of Preemptive Thinning has been Greatly Exaggerated

The Mountain Pine Beetle Draft EIS cites the expanding pine beetle outbreak in the central Black Hills to justify manipulating up to 242,000 acres of the Forest, under the guise of reducing potential catastrophic fire risk:

The MPB epidemic is continuing to expand within and adjacent to the MPBR Project potential treatment areas (PTA's). This current epidemic is killing large numbers of mature pine trees. The vegetation structure and wildlife habitat is changing on a landscape scale. As trees are killed they fall to the ground adding dead, dry fuels within an area already rated as having high wildfire hazard. The rate of infestation is increasing and is likely to spread over a large area over the next three to five years. [DEIS at 16]

Yes, bark beetles are killing many trees, but that won't necessarily lead to large fires. Even if it did, there's not much humans can do directly to forests to influence fire risk, except to begin reducing human causes of climatic change. Logging the forest will not significantly influence fire spread, and removal of dead trees has many negative impacts on forest ecosystems. Logging itself creates many additional environmental impacts, such as greater sedimentation of streams, invasion of weeds, and so on that are far too often ignored by proponents of active forest management.

Nor can humans have much influence on the spread of beetles. To effectively reduce forest susceptibility to bark beetles, 50-80% of the trees have to be removed. Since that is typically as much, or in many cases even more, trees than are killed by bark beetles, such "let's cut the trees to save them" seems unwarranted. Plus, there is no guarantee that those particular stands of trees that are treated with thinning are the same ones that will be attacked by beetles. Yet, the MPB Response Project baldly asserts that only mechanical manipulation of an enormous 242,000 acre area can maintain the desired conditions:

MPB prefer stands of dense, mature pine trees, which is abundant and continuous throughout the area. The primary management tool for reducing MPB-caused mortality is to remove the infested trees and to reduce the density of the remaining trees through mechanical thinning. [DEIS at 16]

As far as community protection is concerned, it is far more cost-effective to reduce flammability of homes in the Response Project Area than to attempt to reduce the flammability of the Black Hills Forest. Focus fire risk reduction in and near homes and developed areas, not out in the "backcountry" of the Forest. Heavy thinnings are likely be ineffective in containing beetle spread in remote areas, and the logging activities themselves might attract additional beetles due to the released turpenes from the slash.

Agency Response:

The purpose and need for the Pine Beetle Response Project is to reduce the threat to ecosystem components, including forest resources, from the existing insect and disease (mountain pine beetle) epidemic and help protect communities from large scale wildfires (DEIS pg. 25).

See Agency Response to Letter 27, Comment 1 regarding risk and hazard.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 27 **Comment No:** 5 **Resource:** Vegetation

Friends of the Norbeck

Comment:

There is very little reliable empirical evidence to suggest that silvicultural treatments can effectively stop outbreaks once a large-scale insect infestation has started (Black et al., 2010). Despite nearly 100 years of active forest management to control the mountain pine beetle, evidence for the efficacy of this approach is scant and contradictory (Wood et al., 1985). Citing multiple sources, Hughes and Drever (2001) found that most control efforts have had little effect on the final size of outbreaks, although they may have slowed beetle progress in some cases and prolonged outbreaks in others. They also suggest that management interventions have never controlled a large-scale outbreak. Although control of such outbreaks is theoretically possible, it would require treatment of almost all of the infected trees (Hughes and Drever, 2001), which may be possible only for a small infestation.

In some situations, removing infested trees prior to the emergence of broods is recommended to protect remaining trees. These efforts may be reasonable near property boundaries, especially in developed areas. However, the overall effectiveness of this strategy over a large area is unproved (Wilson and Celaya, 1998). Further, in most situations, it is probably not logistically feasible to locate and remove all trees before the emergence of adult beetles (Wilson and Celaya, 1998).

Amman and Logan (1998) point to failed attempts to use direct control measures, such as pesticides and logging, after an infestation starts. They suggest that by the early 1970s, it was apparent that controlling the extensive mountain pine beetle outbreaks that were occurring in the northern Rockies by directly killing the beetles was not working.

Agency Response:

See Agency Response to Letter 27, Comment 12.

Letter No: 27 **Comment No:** 6 **Resource:** Vegetation

Friends of the Norbeck

Comment:

Because stressed and unhealthy trees may be more susceptible to bark beetles, another management approach is to modify stand structure by thinning forests before an outbreak starts, as proposed here in the MPB Response Project. Some thinning studies show success in ameliorating mountain pine beetle infestations in lodgepole and ponderosa pine forests (Amman and Logan, 1998). But the overall evidence of the effectiveness of thinning is mixed. Yet the Response Project proposes more of these same questionable policies.

Most evidence supporting thinning as a control for bark beetles is based on tree vigor, not on directly measured insect activity in the stand. Thinning may increase tree vigor, which in turn may make trees less susceptible to insect infestation. The premise is that if the trees are healthy and highly vigorous, they may be able to "pitch out" the attacking beetles, essentially flooding the entrance site with resin that can push out or drown the beetle.

In addition to having no credible referenced support, the Forest Service's position in the Mountain Pine Beetle Response Project also conflicts in some ways with available published, peer-reviewed science on mountain pine beetle responses to thinning and thinning-and-burning. For example, the data obtained from the Forest Service's National Fire and Fire Surrogate Study indicates that in general "thinning had no detectable effect on beetle-caused tree mortality" (Six & Skov 2009). The authors do qualify their results with the acknowledgment that the results may be different if there were more beetles present, but this does point to the fact that, as the authors say, "[w]hile these approaches [thinning, prescribed burning, and a combination of the two] are already in widespread practice, their efficacy in meeting objectives, and their impacts on forest ecosystems are mostly unknown" (Six & Skov 2009).

Agency Response:

Comment noted.

See Agency Response to Letter 27, Comment 12.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 27 **Comment No:** 7 **Resource:** Vegetation

Friends of the Norbeck

Comment:

In conclusion, if a bark beetle infestation is relatively small and concentrated in a limited area, it may be feasible to reduce the population growth by removing infested trees from a forest stand or by thinning a stand to reduce stress on trees competing for limited nutrients, sunlight and moisture. For example, if a small stand of spruce is blown down by a windstorm and populations of bark beetles begin growing in fallen logs, it may be feasible to remove all fallen, infested trees over a small area. However, given the climatic requirements for beetle population levels to reach epidemic levels, it is not known whether such a situation would lead to an outbreak. In other words, a small population of beetles is not sufficient for an outbreak to occur. Conversely, under climatic conditions favorable for an outbreak, such as those of the past decade on the Black Hills National Forest, outbreaks of bark beetles can erupt simultaneously in numerous dispersed stands across the landscape. Unfortunately, even if a growing population of beetles is successfully removed from one stand, under outbreak conditions beetles from other stands are likely to spread over a landscape. Given that climate typically favors beetle populations and stresses trees over very large areas, it is unlikely that management could successfully identify and remove all populations of beetles over an extensive region.

Agency Response:

Comments noted.

DEIS cumulative effects for both action alternatives is addressed on pages 128-129.

Letter No: 27 **Comment No:** 8 **Resource:** Vegetation

Friends of the Norbeck

Comment:

The MPB treatments are not suitable for all of the management areas as proposed, and should be dropped from Backcountry Non-Motorized (5,700 acres), Southern Hills (21,947 acres), and Big Game Winter Range (122,677 acres) management areas.

The MPB Response Project as proposed is unlimited in both time and potential newly-infested acres treated (up to 242,000); the Project authorization should sunset after 5 years, with no more than 5,000 acres treated in any year and a total Project treatment of at most 25,000 acres.

Doing the same thing everywhere precludes learning what actually works; each Ranger District should adopt a different approach: do-nothing, chunk-only, thin-only, and full-range -- to provide a reasonable Range of Alternatives.

Agency Response:

Silvicultural prescriptions are identified in the Forest Plan as Amended. (DEIS page 115). The probability of mountain pine beetle infestation increases with stand density (DEIS page 112). DEIS purpose and need focuses on development of vegetative conditions to reduce mountain pine beetle epidemic. Forest Plan direction, Management Areas and Forest Plan Goals and Objectives are addressed on DEIS page 18-24.

See Agency Response to Letter 8, Comment 5.

Letter No: 27 **Comment No:** 9 **Resource:** Trans/Travel

Friends of the Norbeck

Comment:

No road construction or reconstruction whatsoever should be authorized under this project.

Agency Response:

Alternative A discloses the effects of no road reconstruction and Alternative B discloses the effects of no new road construction.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 27 **Comment No:** 10 **Resource:** Vegetation

Friends of the Norbeck

Comment:

Mountain Pine Beetle Risks have been Greatly Exaggerated

With all the rhetoric about “healthy” forests (and this Project is being proposed under authority of the Health Forest Restoration Act of 2003), some suggest that dead trees will somehow lead to more fires, and are “wasted” if not logged. As we saw above, dead trees under most conditions are often less flammable than live green trees when severe drought dominates. The reason is that it is mostly small flashy fuels that burn -- like needles and small branches. Live trees have an abundance of resin-filled and highly flammable needles and branches, while dead trees, once they lose their needles, are relatively difficult to ignite. That is why you get mostly standing snags after a blaze -- the majority of tree boles do not burn, only the branches and needles.

Agency Response:

One year post infestation, a ponderosa pine’s needles will begin to fade and ultimately turn rust red by season’s end (Hopkins,1905). A dying or dead ponderosa pine might more easily support the transition from a surface fire to the crowns due to the lack of foliar moisture present within the needles. The potential for crown fire may increase for this relative short time while the needles are still attached to the tree. Needles will fall from the tree during the next 6 months to 2 years depending on weather factors. The fire hazard, as defined by structure stage, would be reduced due to lack of crowns. Within 5 years, 70-95% of the dead trees would fall to the ground (Schmid et al. 2009) changing the fuel profile. Surface fuel loadings would go from a typical fuel model 9 at approximately 4 tons/acre to a fuel model 10 at approximately 10 tons/acre (Anderson 1982) with grasses mixed in. This would lead to higher fireline intensities, flame lengths greater than 4 ft, and spotting from firebrands causing higher resistance to control. So the concern associated with beetle killed trees isn’t just the trees with red needles or snags left standing, but the impact on fire behavior once they fall and add to the surface fuel loading.

Letter No: 27 **Comment No:** 11 **Resource:** Vegetation

Friends of the Norbeck

Comment:

A forest with a lot of dead trees is actually a sign of a healthy forest ecosystem. There are even some ecologists who believe we don’t have enough dead trees, which certainly seems to be the case on the overall Black Hills. Yet the Forest Service continues to discuss natural processes on the forest in alarmist and pejorative terms. Moreover, the Forest Service continues to speak of the “threat” from unmanaged areas, as if logging were even moderately effective in “controlling” insect outbreaks and other natural processes at the Forest level.

The Mountain Pine Beetle Response Project EIS must present the natural history of the recent pine beetle outbreak that impacted the Beaver Park area from 1997-2007. Similar wild projections of massive mortality were predicted for the Beaver Park Roadless Area in 2002, similar to the Norbeck DEIS projections for Norbeck for 2020 (USFS 2009). When no support was provided for the Norbeck MPB impacts assumptions, Friends of the Norbeck filed a FOIA request on May 5, 2010, requesting: “Pine structural stage maps showing the Beaver Park Roadless Area at: (i) sometime prior to 1997 and (ii) after completion of the emergency actions authorized in PL 107-206 Sec 706.”

We were provided with structural stage maps for the requested time points that clearly show that the pine beetle outbreak in Beaver Park was greatly exaggerated in the media coverage, and that the impacts of the 1997-2003 outbreak were lower than that of the typical BHNH timber sale. The key map is shown below in Figure 1, which was created specifically in response to our FOIA request by the Forest Service, and to our knowledge not used in any other NEPA analysis.

These maps were processed manually to derive the structural stage percentages for “before” and “after” the 1997-2003 pine beetle outbreak in the Beaver Park Roadless Area. The “before” condition had 86% of the 5,000-acre roadless area in dense canopy (>70%) condition (i.e., structural stages 3C and 4C) alleged to be of greatest risk from pine beetle [NWP FEIS at J-1]. Sixty (60) percent of these high-susceptibility stands retained this dense canopy condition despite the beetle outbreak, with the “after” condition retaining 52% of the entire roadless area in dense-canopy condition.

The mortality from beetles was not nearly as great as the 90% projected for the Norbeck Preserve in the FEIS/ROD, but rather less than 50% of the existing trees. This is significantly less than the 66% logging mortality on treated stands estimated for the Grizzly Project Area. And only 14% was reduced to SS-1 and SS-2 combined, not the 75% assumed in App. J of the NWP FEIS.

The Beaver Park projections turned out to be largely baseless, as the beetle outbreak within the roadless area subsided naturally from 2003-2007. The MPBRP Team should study the Beaver Park outbreak thoroughly. We ask that the Forest Service analyze the natural life history of the Beaver Park Roadless Area outbreak in the MPBRP DEIS, including annual pine mortality and maps of remaining structural stages, as the best empirical guide as to likely future developments on the areas of the Forest experiencing epidemic outbreaks.

Agency Response:

Comment noted. Vegetation – Affected Environment DEIS pages 112-115 addresses recent history of mountain pine activity and structural stages.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 27 **Comment No:** 12 **Resource:** Vegetation

Friends of the Norbeck

Comment:

Finally, we note that the Forest Service continues to use assumptions about beetle mortality based on what it calls "professional, local knowledge" (USFS 2009 at 46) and apparently not on published, peer-reviewed scientific literature. Again, there is a credibility problem here in light of the inherent bias of the Forest Service management branch toward logging (Ruggiero 2007). Indeed, the Forest Service fails to cite to a single peer-reviewed, published scientific study to support its assumption that the proposed logging will be more beneficial in the long term than simply allowing the current MPB outbreak to run its course and other natural processes to return to the Black Hills National Forest on their own.

Agency Response:

Comment noted.

Schmid 2007 page 18 states "Thus, failure to address incipient epidemic MPB populations can substantially affect the achievement of other objectives well beyond the immediate objective of dealing with MPB populations." And "These microcosm stands may become highly susceptible well before overall stand susceptibility exceeds the high susceptible threshold or the stand is silviculturally revisited. Constant silvicultural action is a must if the BHNF is to ever extricate itself from the periodic appearances of MPB epidemics in its timber managed areas."

See Agency Response to Letter 33, Comment 9.

Letter No: 27 **Comment No:** 13 **Resource:** Vegetation

Friends of the Norbeck

Comment:

No Monitoring of Mountain Pine Beetle Impacts Has Been Conducted

One looks in vain for any evidence of new monitoring data assembled to justify the excessive disturbance levels proposed in the MPB Response Project. All one can find on the critical element of snag habitat is vague generalities:

The large tree mortality across the project area would greatly increase the amount of large-diameter snags within MPBR project area. These new snags would be well distributed across the project area. However, snags created by mountain pine beetle are not expected to remain at high levels for longer than five years following death (Schmid et. al., 2009). [DEIS at 117, 125]

We will discuss the shortfalls in Schmid et al. 2009 in the next section; suffice it here to note that no snag monitoring data has been presented in justification of this massive project.

The historical range of natural variability for snag densities on the Black Hills has never been established; this Project must establish threshold conditions for which additional cutting of newly-infested trees (i.e., near-term snags) will maintain sufficient snag habitat to ensure viability of snag-dependent species.

Agency Response:

The Forest monitoring data is posted on the Black Hills NF website.

See Agency Response to Letter 33, Comment 38.

Letter No: 27 **Comment No:** 14 **Resource:** Vegetation

Friends of the Norbeck

Comment:

Factors Affecting Snag Persistence Must Be Considered

The MPBRP Draft EIS does not mention any conditions or criteria that enhance snag persistence that will be applied to the proposed actions. This ignores the negative impacts that thinning actions have on existing snag resources, and the potential of site-selection criteria to maintain standing snags for longer time periods.

Agency Response:

See Agency Response to Letter 33, Comment 38.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 27 **Comment No:** 15 **Resource:** Vegetation

Friends of the Norbeck

Comment:

The Schmid et al. 2009 paper failed to develop an experimental plan by which resistance to windthrow could be evaluated. Indeed, Schmid et al acknowledge that “this [single] Black Hills site was exposed to westerly and northerly winds that may have increased breakage.” [Schmid et al. 2009 at 5]. Schmid et al also failed to quantify the other major factor involved in snag persistence, that is, tree age at death. Together, these failings make the conclusions of Schmid et al. 2009 largely irrelevant to the determination of expected beetle-kill snag longevity. At most, the Schmid et al. estimates can be used as a lower bound on snag persistence (near maximum wind exposure and canopy reduction). The Schmid beetle-kill snag data seem largely comparable to the Lentile et al. 2002 data for the northern site (3 year average persistence, 84 average basal area, and 60-130 year old trees on the site). That is, the Schmid field experiment is unable to determine whether beetle-kill snags last considerably less time (5 years vs assumed 15 years for other snags) that is being claimed in Schmid et al. 2009, and used without justification in the MPB Response Project assessment.

Agency Response:

Comments noted in respect to RMRS-RN-40 by Schmid 2009.

As quoted on page 5 of study publication: “This study was undertaken solely to determine the suitability of MPB-killed trees as potential snags so that the BHNH might consider using them to fulfill the snags/acre criteria.” “MPB snags observed in this study were created by an MPB epidemic that created large groups of MPB snags. Under these conditions and patterns of breakage, MPB-killed trees would be better harvested than left as snags. Although it seems doubtful, MPB snags created under endemic MPB populations may persist longer and thus be more suitable for meeting snag criteria. However, the longevity of MPB snags created by endemic MPB populations is unknown and needs to be determined.”

Letter No: 27 **Comment No:** 16 **Resource:** Vegetation

Friends of the Norbeck

Comment:

No treatments should be undertaken on southeast aspects (SSE to ESE) with >10% slope and >40% canopy closure, where snags will survive for decades rather than a few years due to sheltered (lee) conditions from the strong north and northwest winds responsible for most windthrow losses.

No infected trees larger than 15” diameter at breast height (dbh) should be cut under this authorization, regardless of pine beetle concerns.

Agency Response:

Comments noted.

See Agency Response to Letter 27, Comment 17.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 27 **Comment No:** 17 **Resource:** Wildlife

Friends of the Norbeck

Comment:

Adverse Impacts to Snag-Dependent Species Must Be Considered

The MPBRP Draft EIS ignores the precarious condition of snag-dependent species on the Black Hills already stressed by excessive logging of older forest stands. Many of these wildlife species have low population densities on the BHNF because of past logging. Forests of the BHNF have been heavily cut and intensively managed since the late 1800s; there are almost no places on the BHNF that haven't been logged (Spiering and Knight 2008). This logging has reduced the number of large trees on the BHNF in comparison to historical conditions (NWP FEIS, at 144), and has resulted in a lack of large snags. A recent research project on the BHNF found only 0.8% of snags were over 19 inches in diameter at breast height, or dbh (Spiering and Knight 2008). This lack of large snags is believed to be the reason that wildlife that use snags on the BHNF currently have low populations (Id.), and why one species, the red-headed woodpecker, has largely vanished from the Forest (Id.).

The proposed actions under the MPB Response Project are designed to reduce loss of trees to mountain pine beetles. Control of bark beetles is not required for responsible forest management (Romme et al. 2008). For example, the ongoing pine beetle infestation will be a huge benefit to wildlife that use snags for nesting and/or roosting. Large old trees that may be killed by the bark beetle can provide nesting and/or roosting sites for wildlife for up to 50 years. There are an identified 31 species of snag-nesting birds that could potentially occur on the Black Hills National Forest (Spiering and Knight 2008). Many bat species, as well as two squirrel species, also use cavities in dead trees. The increase in large snag habitat due to the pine beetle will promote the viability of these species on the BHNF by providing areas with an abundance of large snags.

Older forest stands should be managed to provide breeding places for snag-nesting wildlife because many of these species are a conservation concern due to low numbers and/or habitat. For example, five (5) snag-dependent species, the flammulated owl, Lewis woodpecker, black-backed woodpecker, American three-toed woodpecker, and fringed myotis, are identified as "Sensitive Species" on the BHNF because of viability concerns (NWP FEIS, at 161-162). Seven (7) other snag-dependent wildlife species have been identified as "Species of Local Concern" (SOLC) on the BHNF (NWP FEIS, at 124-125). SOLC are those that may be declining or are an important component of diversity. Id. These include the northern saw-whet owl, the pygmy nuthatch, the northern flying squirrel, the northern long-eared myotis, the small-footed myotis, the long-eared myotis, and the long-legged myotis. Two other snag-dependent birds that occur on the BHNF, the red-headed woodpecker and the brown creeper, are identified as a "Bird of Conservation Concern" (BCC) by the U.S. Fish and Wildlife Service (NWP FEIS, at 164). The brown creeper is a species that has experienced significant declines beginning in the 1960s (Wiggins 2005), and was upgraded to a BCC in 2009.

All of these 14 snag-dependent wildlife species on the BHNF that have been identified as a conservation concern will benefit from the pine beetle infestation. The MPBRP plan to reduce and control this pine beetle infestation will have a severe impact on these species due to the loss of current and future large snag habitat. Large snags (snags 20 inches dbh or greater) may be cut if they are a safety hazard as per Forest Plan standard 2301a. However, any and all snags are a safety hazard when they occur in a logging unit, since they could fall on loggers. Any large snag in a treatment unit that has commercial value can be removed.

Agency Response:

Wildfire and insects have resulted in more than three snags per acre greater than nine inches DBH Forest-wide with 23 percent of those being 14 inches DBH or greater. (DEIS page 155). Areas where pine beetles are evident generally have higher snag densities and snag clumping is common (DEIS page 156). The DEIS acknowledged the importance of snags to black-backed woodpeckers (MIS for snags) and other cavity nesters, especially in recently burned areas and MPB infested areas (DEIS page 158). This information is carried forward to the Final EIS.

The effects on snags were disclosed on page 181 of the DEIS. The DEIS acknowledged that snags will increase in all alternatives in the short term due to MPB activity but that snags are expected to decline as insect-killed trees all and the insect attacks decline (DEIS page 181-182). The DEIS acknowledge that treatments in Alternatives B and C are expected to reduce the amount of large diameter trees (DEIS page 182). However, thinning in Alternatives B and C may minimize fragmentation by maintaining more mature forest on the landscape; though that forest can be expected to be more open (DEIS page 187). Treatments in Alternatives B and C may make mature trees less susceptible to MPB, which could improve the potential for future large diameter snags. This analysis is carried forward to the Final EIS.

Structural stage 5 (Old Forest) stands are not included in the potential treatment areas in this project. The effects on mature forest (Structural Stage 4) were analyzed as it applies to wildlife, including the species mentioned in this comment. The American three-toed woodpecker was not analyzed because it is no longer a Region 2 Sensitive Species. Red-headed woodpeckers were not analyzed specifically because they are not an MIS, Species of Local Concern or Sensitive Species.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 27 **Comment No:** 18 **Resource:** Wildlife

Friends of the Norbeck

Comment:

Even though the proposed actions will result in decimation of existing and future large snags within the affected acres, the BHNH will continue to claim that the viability of wildlife species, including sensitive species and species of local concern that depend on snags, will not be affected because Forest Plan standards and guidelines will be followed. The snag objective 211 calls for an average density of at least 3 snags per acre over 9 inches dbh, 25% of which will be over 14 inches dbh. And snag standard 2301a requires that all snags 20 inches or greater in dbh will be maintained unless they are a safety hazard, and that all snags that aren't a safety hazard will be retained if objective 211 is not being met across a project area.

Agency Response:

Population viability of species is not evaluated at the project level. The likelihood that species will persist on the Forest was analyzed at the Forest scale in the Phase II amendment FEIS. Wildlife species are expected to persist on the Forest if projects are consistent with the Forest Plan. This is disclosed in the Phase II amendment FEIS and referenced in the DEIS and FEIS for the wildlife species analyzed in this project.

Letter No: 27 **Comment No:** 19 **Resource:** Wildlife

Friends of the Norbeck

Comment:

Neither objective 211 or standard 2301a ensure that any snags will be retained in harvest units since snags that are a safety hazard can be removed, and snags only have to be retained somewhere in the planning unit, not within logging units. Since these Forest Plan snag management policies do not require any specific number of snags, let alone any snags within harvest units, they clearly cannot be used as a "proxy" for viability of associated wildlife.

Agency Response:

Population viability of species is not evaluated at the project level. The likelihood that cavity dependent species will persist on the Forest was analyzed at the Forest scale in the Phase II amendment FEIS. The MPBR DEIS and FEIS reference the Phase II viability analysis. The snag standards are part of the conservation strategy of the Forest Plan rather than a proxy for viability. The Latest snag data indicates the Forest is above the objective (Objective 211) of 3 snag per acre, with 23 percent greater than 14 inches DBH (DEIS page 155). The Forest continues to conserve snag habitat.

Letter No: 27 **Comment No:** 20 **Resource:** Wildlife

Friends of the Norbeck

Comment:

Even if the optional Forest Plan snag objectives and standards were actually met within logging units of the MPBRP, this would not ensure persistence of snag-dependent species in the project area because too few snags will be provided (3 per acre), and no large snags (over 19-20 inches dbh) are required.

The Phase II Amendment snag direction not only fails to require the abundant large snags many wildlife species need, but it is also stale science. The panel of woodpecker experts interviewed for the Phase II Amendment repeatedly noted that the provision of large blocks of forests that periodically provide catastrophic bark beetle epidemics as foraging habitat for woodpeckers is critical for maintaining viable populations on the BHNH (USDA 2000, at 83-84, 87, 91-92). These recommendations are consistent with extensive documentation that bark beetles provide an important food source to black-backed, American three-toed, and hairy woodpeckers (Bonnot et al. 1996; Covert-Bratland et al. 2006; Murphy and Lehnhausen 1998; Imbeau and Desrochers 2002; Pachacek and Kristin 2004; and Shook and Baldwin 1970).

Agency Response:

Species population viability is not evaluated at the project level. The likelihood that cavity dependent species will persist on the Forest was analyzed at the Forest scale in the Phase II amendment FEIS.

See Agency Response to Letter 27, Comments 18 and 19.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 27 **Comment No:** 21 **Resource:** Wildlife

Friends of the Norbeck

Comment:

The black-backed woodpecker, a BHNH Sensitive Species, is very rare on the BHNH in areas where there are no bark beetles (NWP FEIS, at 108). However, in beetle-infested areas of the BHNH, this species is abundant. Their populations may be up to 7-32 times higher in beetle-infested areas as compared to uninfested areas (NWP FEIS, at 107). This is consistent with other reports that woodpecker populations may increase six-fold during beetle epidemics (Shook and Baldwin 1970). Beetle infestations also provide forage for the brown creeper, a USFWS BCC (NWP FEIS, at 96).

The black-backed woodpecker is not only a BHNH Sensitive Species, but it is also a Management Indicator Species (NWP FEIS, at 112-113). The provision of habitat for Management Indicator Species (MIS) is assumed to ensure viability of various other wildlife species. Hence, population persistence of the black-backed woodpecker also should reflect the persistence of various other woodpeckers and snag-dependent species as well. In spite of the documented dependence of the MIS black-backed woodpecker on bark beetle infestations to attain robust populations on the BHNH, there is no current direction in the BHNH Forest Plan to protect and retain areas with periodic bark beetle infestations. This MIS, as well as other woodpeckers that benefit from bark beetles, will in turn drill the holes in snags that countless numbers of other wildlife species, including many that are currently a conservation concern, require for breeding places. This web of cavity-nesting wildlife cannot continue to exist without the woodpeckers.

Agency Response:

The DEIS and FEIS acknowledge the value of beetle-infested habitat to black-backed woodpecker (DEIS page 185). MPB may provide some food for brown creepers, but they are not as closely tied to fires and MPB as black-backed woodpeckers.

Population viability is not evaluated at the project level. The likelihood that cavity dependent species will persist on the Forest was analyzed at the Forest scale in the Phase II amendment FEIS.

See Agency Response to Letter 27, Comments 18 and 19.

Letter No: 27 **Comment No:** 22 **Resource:** Wildlife

Friends of the Norbeck

Comment:

No treatments should be undertaken in goshawk nest stands or fledging territories, regardless of pine beetle concerns.

No treatments should be undertaken in pine marten habitat or connecting corridors, regardless of pine beetle concerns.

Agency Response:

Treatments in Alternatives B and C could occur in goshawk nest areas if they are consistent with Forest Plan standards and guidelines and design criteria. See design criteria for goshawks in Appendix B, page B-9. Treatments in Alternatives B and C could occur in marten habitat that consists of pine and spruce mixed, but spruce dominant sites are not included in this project. Treatments could occur in marten connective corridors (pine sites). Treatments in marten corridors would be designed to be consistent with Forest Plan Standard 3215 (DEIS Appendix B page B-11). Treatments are allowed in big game winter range if they are consistent with Forest Plan direction. There are no standards or guidelines in the Forest Plan that prohibit treatments in MA 5.4 and there is no design criteria for big game thermal cover because it may not be appropriate across the project area. However, the need for big game thermal cover can be considered at the local area by the interdisciplinary team as part of the implementation process. Other considerations may include many factors, including urgency of treatments, treatment objectives, and other resource concerns.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 27 **Comment No:** 23 **Resource:** Fire/Fuels

Friends of the Norbeck

Comment:

Climate Change Consequences Must Be Considered

The role of climate/weather in regional fire history is often ignored. There is now evidence that changes in ocean temperatures and currents known as the Pacific Decadal Oscillation, as well as similar changes in the Atlantic Ocean, influence regional climate and hence fires. The last time the PDO was very favorable for major fires in the western U.S. was over a century ago, and we experienced some huge fires including the historic 3 plus million acres 1910 blaze that raged across Idaho and Montana. This was long before there was effective fire suppression to create so called "fuel buildups" cited as the need for manipulating virtually every acre of the Black Hills National Forest.

Then beginning in the 1940s the PDO shifted and brought cool, moist weather to the region that lasted until the 1980s -- with the 1988 Yellowstone fires signaling this change in regional climatic conditions. This post-war period coincides exactly with the period when some suggest fire suppression led to fuel buildups. But it may be that the fires that started just didn't burn well because wet, cool weather limited fire spread. In other words, we probably would not have had large blazes whether we suppressed fires or not.

Since the 1980s the PDO has shifted once again bringing overall dry conditions, higher temperatures and high winds. Despite much more sophisticated firefighting abilities we have been unable to halt large blazes. And thinning/logging appears to have little impact on fire spread when climate/weather conditions are severe. When viewed from this larger regional climatic condition, current large fires and large beetle outbreaks are the "natural" response to these circumstances. The best we can do is to make sure that our homes are fire safe, and try to avoid building in forested locations.

Agency Response:

The mission of the US Forest Service is to sustain health, diversity, and productivity of the Nation's forests and grasslands to meet the needs of present and future generations. The FS recognizes climate change is an important issue and developed the "Strategic Framework for Responding to Climate Change" (Hayward et al. 2009) to help address this challenge. Proper vegetation management should promote greater resilience to drought, insects, disease agents, and wildfire, maintaining or increasing the adaptive capacity of ecosystems to possible climate change effects.

Pile burning would release carbon dioxide and other compounds into the air, but the potential impact on climate change, at the project level scale, would be inconsequential.

Climate change does affect local weather patterns which affects fuel moistures in fine fuels as well as down woody debris. During dry years the fuel will burn more readily than during wet years. During seasons with average weather conditions it has been demonstrated on the Black Hills National Forest that fire behavior has lessened when fire reached areas that had been thinned or where fuel breaks were created. The potential for crownfire initiation was lacking where the ladder fuels had been removed. High temperatures, low relative humidities, and high winds can override fuels treatment activities and will be the primary driver of fire spread, which has also been witnessed on large fires on the forest.

Letter No: 27 **Comment No:** 24 **Resource:** Vegetation

Friends of the Norbeck

Comment:

Even more importantly the news media often neglects to educate the public about the ecological value of bark beetles as "ecosystem engineers." Beetles are essential to maintaining biodiversity in our forests. One study of bark beetles in Europe found that bark beetles created habitat for a wide array of other insect species, including many pollinating bees and wasps, whose numbers increased in the forest gaps created by bark beetles.

Agency Response:

DEIS addresses wildlife on page 155-190.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 27 **Comment No:** 25 **Resource:** Plan

Friends of the Norbeck

Comment:

There is an ever-increasing body of peer-reviewed, published scientific literature demonstrating that logging our public land forests significantly reduces the capacity of those forests to sequester carbon. The Forest Service's failure in the MPBRP Draft EIS to even mention potential impacts of climate change does not satisfy the hard look required under NEPA or the consideration of the best available science required under NFMA. See *New Mexico ex rel. Bill Richardson v. BLM*, 565 F.3d 683(10th Cir. 2009)(requiring a "hard look" under NEPA); *Burlington Truck Lines. v. United States*, 83 S. Ct. 239, 245-246 (1962)(requiring substantial supporting evidence for agency decisions); 36 C.F.R. 219.11 (2001) (requiring consideration of the best available science).

The Forest Service MPBRP Draft EIS completely failed to provide any quantitative assessment as to how the logging of tens of thousands of acres of public forest land proposed by the Project – in addition to the commercial logging currently authorized under Projects implementing the Forest Plan timber program – could individually or cumulatively impact climate change (USFS 2009). As noted above, logging significantly reduces the ability of a forest to mitigate greenhouse gas emissions by storing carbon. In particular, the logging of old growth and mature forest – such as the logging on 325,000 acres of "dense, mature pine trees" proposed by the MPB Response Project – is a significant concern because once logged, such forest areas may never regain their full carbon storage potential (Harmon et al., 1990).

In light of the express directive from the Chief of the Forest Service to address climate change, the numerous scientific studies that have found public forest logging to be a significant concern in managing global carbon stores, and the recent federal appellate court ruling holding that NEPA requires an analysis of climate change, the Forest Service must quantitatively assess the issue of climate change in the MPBRP DEIS. To not do so is arbitrary and capricious and a violation of NEPA. *State Farm*, 463 U.S. at 43; *Oregon Natural Desert Ass'n*, 531 F.3d at 1142; *Center for Biological Diversity*, 538 F.3d at 1217.

At the very least, the Forest Service must acknowledge in the Mountain Pine Beetle FEIS the large body of responsible scientific literature that contradict or undermine the unsupported assumption that the proposed actions will maintain or increase the ability of the area to sequester carbon. See *Burlington Truck Lines. v. United States*, 83 S. Ct. 239, 245-246 (1962).

Agency Response:

This project contributes toward meeting the agency's goal of mitigating the buildup of greenhouse gasses, by managing the forest landscape within the project area so that it is more resilient to deforestation or catastrophic loss.

Greenhouse gases are becoming a concern because they can trap heat in the atmosphere, thus warming the climate. Greenhouse gases include water vapor, carbon dioxide, methane, nitrous oxide, and ozone. A major concern is the amount of carbon that is being released into the atmosphere in several of these gases. Forests may have a role to play in management of climate change because of their ability to take up carbon during respiration, and sequester it in tree roots, boles and branches.

There are about 490 million acres of timberland in the United States, in various ownerships, forest types and site conditions. The current inventory of carbon in forest trees is 13.8 billion metric tons, and in forest understory, floor and soils, 24.3 billion metric tons. The rate of carbon absorption by U.S. terrestrial systems peaked around 1960 and has been falling since then. The net sequestration of carbon by forests is projected to decrease from 274 to 161 million metric tons per year, from 1990 to 2040. So, carbon uptake and storage in forests and forest products in this country will continue to decline through 2040. (Joyce and Birdsey 2000).

The potential for increasing carbon storage in forests in the U.S. is quite large, however. There is potential to increase the amount of carbon sequestration by forested ecosystems. (Stavins and others, 2005). "Improved forest management" may offer the most cost-effective means to sequester additional carbon in forest ecosystems in the short term, although verifying carbon changes due to forest management may be difficult. Some models indicate that, over long time periods, sustainable forest product management on highly productive sites gives a larger carbon offset than protecting forests intact. ((Joyce and Birdsey 2000).

The National Forest System (NFS) is made up of about 191 million acres of land administered by National Forests and National Grasslands. About 20% of the NFS land area is in wilderness and is not subject to silvicultural management. The National Forests contain about 97 million acres of non-wilderness timberland. (USDA-NASS, 2008). This means that about 20% of the total timberland in the U.S. is administered by the Forest Service. Since all U.S. forest acreage offsets about 15% of all U.S. greenhouse gas emissions, it is clear that the effects of forest practices on any single project area, or even any given National Forest, may not be measurable in a meaningful way.

National laws and regulations governing management of the NFS require that lands harvested be reforested. Management prescriptions on these lands generally call for maintenance and improvement of habitat qualities for plant and animal species, and silvicultural improvement. These objectives can often align well with objectives to improve resiliency to longer-term influences such as changing climate.

Changing climate and warming caused by an increase in greenhouse gases can be relevant to Forest Service land management in two ways. These include assessing and reducing greenhouse gas emissions (mitigation); and, coping with the effects of climate

change (adaptation). Mitigation reduces greenhouse gas emissions either directly on-site or by off-setting emissions generated elsewhere. Mitigation can include such activities as reducing the potential for deforestation or catastrophic loss, reforestation denuded lands, managing forests, to increase carbon uptake by trees, and utilizing biomass and wood products where carbon is sequestered. Management practices that reduce the likelihood of catastrophic fire and insect attack, and allow for utilization of forest products, can be characterized as mitigation techniques.

Proactive forest management anticipates certain long-term effects will result from changing climate based on research. It is important to recognize that there is a high degree of uncertainty in some current predictions. Management practices that promote diversity of species and reduce threats to forest health may also foster resilience in plant and animal communities, and can be characterized as adaptation techniques. These can often be carried out in current project planning. The need for changing management strategies may need to be assessed in higher-level planning efforts such as RPA and forest planning. These efforts will rely on continuing scientific research.

Letter No: 28 **Comment No:** 1 **Resource:** Plan

Environmental Protection Agency,
Region 8

Comment:

In accordance with our responsibilities under the National Environmental Policy Act (NEPA), 42 U.S.C. Section 4321, et seq., and Section 309 of the Clean Air Act, 42 U.S.C. Section 7609, the U.S. Environmental Protection Agency Region 8 (EPA) has reviewed the May 2012 Draft Environmental Impact Statement (DEIS) for the Mountain Pine Beetle Response Project. This DEIS was prepared by the U.S. Department of Agriculture Forest Service (USFS) Black Hills National Forest to analyze potential environmental impacts associated with the project's proposed vegetation treatments. These treatments are intended to reduce the threat to ecosystem components, including forest resources, from the existing mountain pine beetle (MPB) epidemic and to help protect local communities and resources from large scale wildfire by reducing hazardous fuels. In a September 7, 2011 letter, EPA provided scoping comments for this project. We appreciate that the USFS addressed many of our comments in the DEIS. As a result, our concerns with the May 2012 DEIS have been narrowed to these issues: (1) level of analyses, (2) aquatic resources and (3) adaptive management and monitoring. These concerns are the basis for EPA's EC-2 rating discussed at the conclusion of this letter.

Agency Response:

Comment noted.

Letter No: 28 **Comment No:** 2 **Resource:** Vegetation

Environmental Protection Agency,
Region 8

Comment:

(1) The site-specificity of analyses for each action alternative should be carefully considered to ensure that project impacts are adequately disclosed and mitigated for this forest-wide project.

The adaptive treatment techniques in Alternative B are all designed to be responsive to the beetle epidemic as it moves unpredictably across the forest. Due to the responsive nature of the management actions in this alternative, the techniques employed in Alternative B require the flexibility afforded by this project design and analysis. Additionally, the lack of road construction and inclusion of solid design criteria reduce the water quality concerns associated with Alternative B. With the few exceptions listed below under aquatic resources and adaptive management/monitoring, we find the site-specificity of this analysis to be appropriate for Alternative B activities and consistent with other USFS analyses for beetle response oriented projects.

In contrast to the techniques contemplated under Alternative B, the landscape level thinning element added in Alternative C would be used to treat stands displaying high fire or beetle risk characteristics. Preventive thinning is proposed for stands having high human or wildlife values that would be jeopardized by beetles or fire, including areas in the wildland-urban interface and important species habitat. Because these treatments are preventive rather than responsive, USFS currently has the ability to identify these stands and the appropriate treatment techniques based on current stand risk conditions and proximity to sensitive resources. We recommend the Final EIS (FEIS) include additional site-specific assessment of the 124,000 acres potentially available for landscape-level preventive thinning including identification of the following:

- location of each stand to be treated;
- cover type and stand conditions that present high risk;
- environmental resources potentially affected (e.g., aquatic resources, wildlife, threatened or endangered species, soils, recreation, air quality) and a prediction of impacts to each resource;
- amount of ground disturbing activity; and
- amount, type and specific location of road construction and associated impacts.

This information is important to allow an assessment of whether the proposed design criteria and best management practices will protect aquatic resources from loss of function from sedimentation and related impacts. In addition, EPA suggests USFS identify the circumstances under which thinning in these identified areas might not occur (e.g., high beetle activity in the stand, lack of sufficient resources, etc.). We note that EPA has consistently seen this type of site-specific analysis for projects designed to reduce forest vulnerability to beetles and fire for preventive thinning projects in the Black Hills and other forests. If preventive thinning is likely to

be included in the selected alternative, it may be more timely and cost effective to include the site-specific information in this EIS, rather than tiering additional NEPA analyses as landscape thinning projects are needed.

Agency Response:

Additional language has been added to Design Criteria, Mitigation, and Monitoring sections in the FEIS to clarify the adaptive process and use of Integrated Pest Management techniques on the ground.

Letter No:	Comment No:	Resource:
28	3	Hydro

Environmental Protection Agency,
Region 8

Comment:

(2) Aquatic resources in the project area are of critical importance, requiring evaluation and mitigation of associated impacts.

EPA considers protection of aquatic resources to be among the most important issues to be addressed in any NEPA analysis for vegetation management activities. Most treatments contemplated under the action alternatives (e.g., harvest, pile burn, chemical application, road construction) have the potential to adversely impact aquatic resources, including surface and ground waters, wetlands, streams, riparian areas, and their supporting hydrology. As noted in our scoping comments, we recommend USFS fully evaluate the alternatives by providing complete data and robust analyses of potential impacts.

Agency Response:

DEIS pages 54-81 discloses the direct, indirect, and cumulative effects to the aquatic resources.

Letter No:	Comment No:	Resource:
28	4	Hydro

Environmental Protection Agency,
Region 8

Comment:

(2) Aquatic resources in the project area are of critical importance, requiring evaluation and mitigation of associated impacts.

Watersheds: We understand the USFS defines Class 1 watersheds as those that exhibit high geomorphic, hydrologic, and biotic integrity relative to their natural potential condition, while Class 2 watersheds exhibit moderate integrity relative to their natural potential condition. To focus the level of analysis for this forest-wide project, the DEIS includes a direct/indirect impacts analysis and disclosure of information pertinent to 15 watersheds based on potential for the project to cause transition from Class 1 to Class 2 watershed classifications. Data presented for these select 15 watersheds include watershed condition class, acreage of proposed treatments, treatment percentage of watershed acreage, and Clean Water Act Section 303(d) impaired waterbodies. In addition, cumulative impacts to watershed classification and impaired waterbodies were assessed for seven watersheds based on potential treatment acreage occurring in 25% or more of the watershed's total acreage. Data presented for these watersheds include watershed condition class, acreage of proposed treatments, and treatment percentage of watershed acreage. There is overlap for one watershed that was assessed in both the direct/indirect impacts analysis and the cumulative impacts analysis. Therefore, a total of 21 watersheds were assessed in some fashion for project impacts.

Agency Response:

Comment noted.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 28 **Comment No:** 5 **Resource:** Hydro

Environmental Protection Agency,
Region 8

Comment:

(2) Aquatic resources in the project area are of critical importance, requiring evaluation and mitigation of associated impacts.

The USFS concludes that adherence to project design criteria, Forest Plan Standards & Guidelines, and Watershed Conservation Practices will prevent adverse direct, indirect and cumulative impacts to watershed condition classification resulting from the action alternatives. We recommend the FEIS more specifically identify potential project impacts and the specific guidelines, practices and/or project design criteria that will prevent those impacts. This would include those measures that will protect the impaired parameters of the Clean Water Act Section 303(d) listed waterbodies (e.g., temperature, dissolved oxygen, pH, etc.) particularly since proposed treatments could occur in the watershed influence zone of impaired streams. In addition, information regarding past, present and future actions for these watersheds is provided in the cumulative effects summary tables (Tables 3-7 through 3-13). We recommend that the entries for Alternatives B and C in these tables be expanded to include the full acreage of all proposed management techniques in addition to the commercial harvest acreage.

Agency Response:

DEIS pages 50-81 discloses the impacts to watershed condition. DEIS Tables 3-7 through 3-13 have been updated to include the non-commercial activities in the FEIS.

Letter No: 28 **Comment No:** 6 **Resource:** Hydro

Environmental Protection Agency,
Region 8

Comment:

(2) Aquatic resources in the project area are of critical importance, requiring evaluation and mitigation of associated impacts.

We understand that the remaining watersheds of the 112 watersheds in the project area were analyzed but not included in the DEIS data presentation due to minimal impacts resulting from proposed treatments. We recommend the FEIS clarify this point and note that the analyses for all watersheds are contained in the project file.

Agency Response:

Cumulative Effects section on Targeted Watersheds has been clarified within the FEIS.

Letter No: 28 **Comment No:** 7 **Resource:** Hydro

Environmental Protection Agency,
Region 8

Comment:

(2) Aquatic resources in the project area are of critical importance, requiring evaluation and mitigation of associated impacts.

Wetlands and Riparian Areas: The DEIS identifies wetland types and acreage within potential treatment areas. To more fully inform the reader and disclose potential impacts, we recommend the FEIS include a map showing the locations of these wetlands and/or a table that identifies the wetland acreage by watershed. In addition, we recommend the text of the FEIS include a summary or examples of the project design criteria (as identified in Appendix B) that will ensure that riparian areas, wetlands and springs will not be impacted by project activities.

Agency Response:

A map of the wetlands has been added to Appendix G- Maps in the FEIS. The Hydrology Specialist report details the watershed acreage by watershed. Project design criteria are included in Appendix B and have been clarified.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 28 **Comment No:** 8 **Resource:** Hydro

Environmental Protection Agency,
Region 8

Comment:

(2) Aquatic resources in the project area are of critical importance, requiring evaluation and mitigation of associated impacts.

Water Quality: The DEIS provides a qualitative assessment of impacts to water quality by disclosing potential project impacts to streams and watershed influence zones from sediment and stream temperature effects (due to removal of shading). Although mileage of streams and acreage of watershed influence zone in potential treatment areas are provided, we recommend the FEIS include maps identifying the locations of these resources to enable the reader to more fully understand the potential for impacts from this forest-wide project.

Agency Response:

A map identifying the WIZ (Watershed Influence Zones) has been added to Appendix of G- Maps in the FEIS.

Letter No: 28 **Comment No:** 9 **Resource:** Hydro

Environmental Protection Agency,
Region 8

Comment:

(2) Aquatic resources in the project area are of critical importance, requiring evaluation and mitigation of associated impacts.

Design Criteria, Mitigation Measures and Monitoring: We support the list of project design criteria, mitigation measures and monitoring requirements, as identified in Appendix B, to ensure that project activities do not adversely impact aquatic resources. We recommend expanding the list as follows:

- Develop design criteria and/or mitigation measures to protect reservoirs, particularly if treatments could occur adjacent to these important resources. Such measures may include operational requirements for treatments implemented directly adjacent to reservoirs and/or monitoring impacts to reservoir water quality from project activities.

Agency Response:

Reservoirs will be added to the design criteria list in Appendix B.

Protection for Range Improvements is included in the design criteria (DEIS Appendix B on page B-3).

Fencing and water developments do exist throughout the Project Area that would need to be on maps and have protection through avoidance from damage caused by commercial and non-commercial treatment activities such as, cable operations, harvest machinery, and skidding. The same improvements would need protection from damage by other proposed activities such as cut and chunk.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 28 **Comment No:** 10 **Resource:** Plan

Environmental Protection Agency,
Region 8

Comment:

(3) A detailed adaptive management strategy and monitoring plan are critical to the success of this project and should be fully disclosed.

The Mountain Pine Beetle Response Project provides for an adaptive treatment process to be implemented as necessary over the next 5-7 years depending on where beetle infestations occur and what integrated pest management techniques are most appropriate at the time. In its January 21, 2011 guidance on the appropriate use of mitigation in environmental assessments and environmental impact statements under NEPA, The Council of Environmental Quality noted that adaptive management can help an agency take corrective action if mitigation commitments originally made in NEPA and decision documents fail to achieve projected environmental outcomes and there is remaining federal action. To ensure USFS achieves desired environmental outcomes (i.e., to reduce the threat to ecosystem components from existing MPB epidemic and to help protect local communities and resources from large scale wildfire by reducing hazardous fuels) while also protecting other resources, EPA recommends the FEIS identify the features of an effective adaptive management plan for this project, including the following:

- Decision tree with clear objectives to guide future decisions;
- Specific decision thresholds with identified indicators for each impacted resource;
- Targets that specify a desired future condition;
- Trends specifying a desired change relative to the current condition;
- Monitoring plan with protocols to assess whether thresholds are being met; and
- Firm commitment to use monitoring results to modify management actions as necessary.

EPA recommends the FEIS describe how and with what resources the USFS will conduct the essential monitoring necessary under an adaptive management plan to ensure the project is meeting objectives and mitigating impacts as predicted. It may be reasonable to consider provisions for reducing treatment acreage or omitting specific locations if unanticipated resource impacts occur or monitoring does not indicate progress toward desired conditions. For a good example, we suggest you refer to the October 2010 Black Hills National Forest Mystic Range Project Adaptive Management and Monitoring Plan, which identifies monitoring sites, desired conditions, frequency, trigger points, and specific management changes if warranted based on monitoring.

We recommend the discussion of monitoring requirements include details regarding the timing of monitoring for water quality. Timely monitoring is particularly important given the high resource value and broad scale of the project area. In addition, we recommend discussion of the general timing of adaptive management implementation and effectiveness monitoring. A firm commitment to effectiveness monitoring is desirable given that adaptive management cannot be employed without the full implementation of its associated monitoring schedule. Given the 5-7 year timeframe for this project, the inclusion of requirements for an interdisciplinary team to have scheduled reviews of the adaptive management feedback loop would provide the opportunity for timely assessment of whether thresholds are being met and any need for specific actions if thresholds are not being met.

Agency Response:

See Agency Response to Letter 8, Comment 5.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 28 **Comment No:** 11 **Resource:** Plan

Environmental Protection Agency,
Region 8

Comment:
EPA's Rating

Consistent with Section 309 of the CAA, it is EPA's responsibility to provide an independent review and evaluation of the potential environmental impacts of this project. Based on the procedures EPA uses to evaluate the adequacy of the information and the potential environmental impacts of the proposed action, EPA is rating this DEIS as Environmental Concerns – Insufficient Information (EC-2). The "EC" rating indicates that EPA review has identified environmental impacts that need to be avoided in order to fully protect the environment. The "2" rating indicates that EPA has identified additional information, data, analyses, or discussion that we recommend for inclusion in the FEIS. Because a preferred alternative was not identified in the DEIS, we are rating the DEIS based on Alternatives B and C (we do not rate the no action alternative). A full description of EPA's rating system is enclosed.

Although Alternatives B and C received an EC-2 rating in this review, we do not view them as equivalent. The difference in proposed new road construction mileage between the two action alternatives is substantial – 0 miles under Alternative B and up to 250 miles under Alternative C (70 miles of new system roads and 180 miles of temporary roads). Although design criteria were developed to protect aquatic resources from road construction impacts and it is the USFS's intent to close all temporary and newly constructed system roads after harvest completion, the difficulty of eliminating impacts and ensuring complete closure of these roads may result in long-term sediment loading to aquatic resources compared to Alternative B.

Agency Response:
Comments and EPA's rating ("EC-2") is acknowledged.

Letter No: 29 **Comment No:** 1 **Resource:** Plan

Black Hills Regional
Multiple Use Coalition

Comment:

On behalf of our members, the Black Hills Regional Multiple Use Coalition (BHRMUC) appreciates the opportunity to provide comments on the Mountain Pine Beetle Response Project (PBR). The BHRMUC advocates for multiple use management of federal lands in western South Dakota and northeastern Wyoming. Our 38 member organizations (see attached list) represent the whole spectrum of multiple uses and users, including grazing, hunting, fishing and trapping, motorized recreation, non-motorized recreation, forest management, water users, communities, and economic development.

As you are well aware, the mountain pine beetle (MPB) epidemic continues to spread rapidly through the Black Hills National Forest (BHNF), as well as adjacent State and private lands. A broad-scale NEPA analysis, such as the PBR, is an appropriate way for the agency to reduce NEPA compliance costs consistent with CEQ's Guidance for NEPA Efficiency. The BHNF is fortunate to have a robust installed wood processing capacity, and we encourage you to fully take advantage of this capacity to help finance and expand badly needed forest health treatments. As the DEIS states "The only effective long-term strategy to minimize MPB-caused mortality is controlling stand conditions through silvicultural means over large landscapes" (DEIS page iv). We concur, and point to forest products companies as the optimal tool to achieve desired conditions.

The Forest Service itself has noted that inactive management has contributed to the extent and severity of the current Mountain Pine Beetle epidemic: "During the last part of the 20th century, widespread treatments in lodgepole pine stands that would have created age class diversity, enhanced the vigor of remaining trees, and improved stand resiliency to drought or insect attack—such as timber harvest and thinning—lacked public acceptance. Proposals for such practices were routinely appealed and litigated, constraining the ability of the Forest Service to manage what had become large expanses of even-aged stands susceptible to a bark beetle outbreak." [1] [1] Review of the Forest Service Response: The Bark Beetle Outbreak in Northern Colorado and Southern Wyoming; A report by USDA Forest Service, Rocky Mountain Region and Rocky Mountain Research Station at the request of Senator Mark Udall, September 2011

Agency Response:
Comment noted.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 29 **Comment No:** 2 **Resource:** Plan

Black Hills Regional
Multiple Use Coalition

Comment:

We offer the following specific comments:

1. We recommend that you select Alternative C. Alternative A (the No Action Alternative) does not address the PBR Purpose and Need. Alternative B (the Proposed Action) does not adequately respond to the epidemic. Alternative B primarily allows for sanitation, plus minimal thinning, along existing roads only. This fails to fully address the Purpose and Need, and does not effectively control the epidemic or provide for increased stand resiliency going forward. As the Forest Service notes, Alternative C would treat the highest number of acres analyzed in this NEPA document. Alternative C also treats the maximum number of interface acres, while producing the “best” social and economic outcomes.
2. We believe the DEIS adequately analyzes the alternatives and best achieves the PBR Purpose and Need. Alternative C provides the greatest ability to treat landscape areas of at-risk stands. Alternative C was created in response to the public comments received in scoping. It allows sanitation efforts in conjunction with a broader ability to thin across the landscape. Because this alternative allows some new road construction, it will extend effective treatments across a broader portion of the landscape.
3. We support the one-time Forest Plan Amendment regarding snails and road construction in Spearfish Canyon.
4. We support the adaptive nature of the project and the landscape scale of the analysis and treatments.
5. We urge you to implement Alternative C as quickly as possible, given the scale and intensity of the MPB epidemic in the BHNF. In implementing Alternative C, we also urge you to ensure coordination with the local forest products companies. This includes strategically focusing treatments to maximize effectiveness at the landscape scale.

Agency Response:

Comment noted.

Letter No: 30 **Comment No:** 1 **Resource:** Plan

Black Hills Forest
Resource Association

Comment:

On behalf of the Black Hills Forest Resource Association (BHFRA) and its members, we would like to thank you for the opportunity to comment on the Mountain Pine Beetle Response Project (PBR).

We are in strong support for the use of HFRA Authorities and feel that implementation of a signed ROD is needed ASAP. We feel the purpose and need are appropriate in continuing to address the current MPB epidemic.

The current MPB epidemic has spiraled out of control for long enough, affecting over 400,000 acres of BHNF lands and likely upwards of 500,000 across the Black Hills region. Current policy and funding resources have made an efficient and effective response even more difficult. We are pleased with the efforts to produce the PBR, but feel the only Alternative that is appropriate in this situation is Alternative C. Alternative A results in continued loss of our forested resource which is not an option, and Alternative B does not go far enough in fully addressing the points outlined in the purpose and need.

Alternative C or “the people’s choice”, allows for greater ability to respond as the MPB continues to expand. We support the following components of Alternative C:

- Sanitation addressing green-infested trees – removing the “cancer” is an important part of the equation in mitigation efforts.
- Proactive thinning – this is also an important piece that compliments the sanitation efforts. Overstocked forest stands are the driving force behind the epidemic and reducing the number of trees on the landscape leaves our stands less susceptible.
- Proposed Road Construction – To achieve the increased level of thinning, there needs to be the ability to construct roads, both temporary and permanent. We support the proposed roads in Alt C, but would recommend that whenever possible, limiting the extent of new & temporary construction while still meeting project objectives.
- We also support the proposed Forest Plan Amendment that helps respond to the MPB activity in Spearfish Canyon.

Agency Response:

Comment noted.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 30 **Comment No:** 2 **Resource:** Vegetation

Black Hills Forest
Resource Association

Comment:

We would also recommend the following additional comments regarding the PBR project:

- Continue to support and use the latest and most current information related to mitigation efforts – having the right data and information will help facilitate a better response. This would include MPB aerial photos, aerial delineations, new treatment methods, etc.

Agency Response:

Comment noted.

Letter No: 30 **Comment No:** 3 **Resource:** Vegetation

Black Hills Forest
Resource Association

Comment:

We would also recommend the following additional comments regarding the PBR project:

- Increased communication with PBR project implementation - specifically as it relates to the potential roles that the industry will help with. With the large extent of acreage identified under analysis, and the many decisions to be made about the future treatment methods, locations and timing, we feel communication will be critical. Our members would like to be involved in the formation of future harvest schedules and helping craft on the ground

Agency Response:

Comment noted.

Letter No: 30 **Comment No:** 4 **Resource:** Vegetation

Black Hills Forest
Resource Association

Comment:

We would also recommend the following additional comments regarding the PBR project:

- We would also recommend not limiting the extent of high-risk acres potentially able to be treated through timber harvest. If there have been 248,000 of proposed treatment acres, then adaptive management (such as timber harvest) should be able to be done on up to 248,000 acres, rather than just 50%.

Agency Response:

See Agency Response to Letter 6, Comment 2.

Letter No: 30 **Comment No:** 5 **Resource:** Plan

Black Hills Forest
Resource Association

Comment:

We would also recommend the following additional comments regarding the PBR project:

- We fully support the collaborative efforts of the Black Hills Regional Mountain Pine Beetle Strategy and we feel this project should compliment efforts outlined in the Strategy. We also feel mention of this Strategy should be included in the FEIS.

Agency Response:

Comment noted.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 30 **Comment No:** 6 **Resource:** Plan

Black Hills Forest
Resource Association

Comment:

We would also recommend the following additional comments regarding the PBR project:

- Well written design criteria that follow Forest Plan direction but allow for flexibility during implementation are helpful under this project. We would suggest not limiting mitigation efforts through design criteria that go above and beyond what is mentioned in the Forest Plan.
- We suggest allowing greater flexibility in mitigation efforts associated with potential, suitable, and sensitive plant habitat.
- Limit the extent and number of restrictions that have the potential to limit on the ground response. Specifically, things like hiking trails, OHV routes, snowmobile trails, SIO, etc, must be of secondary concern if we are truly addressing the MPB crisis before us.

Agency Response:

See Agency Response to Letter 8, Comment 5.

Design criteria are based on Forest Plan direction and BMPs. Some of the design criteria include clarification of types of activities that would be consistent with Forest Plan standards and guidelines. The Forest intends to consider the different treatment methods along with the intent of the protective measures, risks to the protected resource, and the benefits of treatments in an effort to effectively manage the MPB outbreak while protecting sensitive resources consistent with Forest Plan Direction.

Letter No: 30 **Comment No:** 7 **Resource:** Plan

Black Hills Forest
Resource Association

Comment:

We would also recommend the following additional comments regarding the PBR project:

- We also recommend discussion regarding treatments in sensitive areas such as late successional forests, RNAs, Botanical Areas, Roadless Areas, etc. While these areas tend to draw controversy, we know what happens if we do nothing – we lose them. These areas are important to conserve and we would support discussion in the future to address potential routes in reducing the risks associated with MPB and wildfire threats.

Agency Response:

See Agency Response to Letter 15, Comment 2.

Letter No: 31 **Comment No:** 1 **Resource:** Plan

Federal Forest
Resource Coalition

Comment:

The Federal Forest Resource Coalition appreciates the opportunity to provide comments on the Mountain Pine Beetle Response Project. FFRC represents purchasers of Forest Service and BLM timber across the country, including the Black Hills National Forest. We appreciate the effort of the Forest Service in assembling this project and urge you to begin implementing Alternative C as quickly as possible.

As the Forest Service is well aware, Mountain Pine Beetle (MPB) infestations are spreading rapidly throughout the National Forest System lands in the Western U.S. Drought stressed trees on other National Forests, such as the National Forests in Texas, are also experiencing an uptick in beetle mortality. A broad scale NEPA analysis, such as the Mountain Pine Beetle Response Project, is an innovative and appropriate way for the agency to reduce NEPA compliance costs consistent with CEQ's Guidance for NEPA Efficiency. Much like efforts to restore short-leaf pine on the Ouachita National Forest in Arkansas, we believe the Black Hills can rely on commercial harvest, including commercial thinning, to not only reduce fire and beetle hazards, but to generate revenues to extend treatment to other susceptible acres. Unlike other Forests in the Southern Rockies, the Black Hills has a robust installed wood processing capacity. The Black Hills should take advantage of this capacity to help finance and expand badly needed forest health treatments. The DEIS itself states "The only effective long-term strategy to minimize MPB-cause mortality is controlling stand conditions through silvicultural means over large landscapes." (DEIS page iv) The only way to maintain the ability to conduct large scale silviculture is to retain existing wood using facilities.

Agency Response:

Comment noted.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 31 **Comment No:** 2 **Resource:** Vegetation

Federal Forest
Resource Coalition

Comment:

The Forest Service itself notes that inactive management has contributed to the extent and severity of the current Mountain Pine Beetle epidemic: "During the last part of the 20th century, widespread treatments in lodgepole pine stands that would have created age class diversity, enhanced the vigor of remaining trees, and improved stand resiliency to drought or insect attack—such as timber harvest and thinning—lacked public acceptance. Proposals for such practices were routinely appealed and litigated, constraining the ability of the Forest Service to manage what had become large expanses of even-aged stands susceptible to a bark beetle outbreak." [1]

Rapid implementation of Alternative C is critical given the state of the current MPB epidemic in the Black Hills. Alternative A ("no action") doesn't address the Purpose & Need of the Project. Alternative B (the proposed action) doesn't effectively respond to the epidemic at the current state. Alternative B only allows sanitation along with minimal thinning, primarily along existing roads. This fails to fully address the Purpose & Need, and does not effectively control the epidemic of provide for a resilient stand condition going forward.

Alternative C provides greatest flexibility by having the ability to treat larger areas of at-risk stands. Alternative C was created in response to the public comments received in scoping. It allows sanitation efforts in conjunction with a broader ability to thin across the landscape. Because this alternative allows some new road construction, it will extend effective treatments across a broader portion of the landscape.

As the Forest Service notes, Alternative C would treat the highest number of acres analyzed in this NEPA document. It is worth noting that the 124,000 acres of mechanical treatments called for in Alternative C still only represents about 10% of the Black Hills National Forest and just about 50% of the acres identified as High Risk on the Forest. Further, Alternative C treats the maximum number of interface acres, while producing the "best" social and economic outcomes.

FFRC supports the one-time Forest Plan Amendment regarding snails and road construction in Spearfish Canyon. We are also strongly supportive of the adaptive nature of the project and give credit for the first of these types across a landscape level. We urge the Forest Service to ensure that implementation of commercial treatments are coordinated with the local forest products industry. This includes focusing treatments in some type of strategic order that creates or builds on effective 'landscape level' treatments. We believe the EIS adequately analyzes the alternatives and correctly discerns the purpose and need for the project.

Agency Response:

Comments noted.

See Agency Response Letter 6, Comment 4.

Letter No: 31 **Comment No:** 3 **Resource:** Plan

Federal Forest
Resource Coalition

Comment:

We further applaud the use of Healthy Forest Restoration Act (HFRA, P.L. 108-148) authority to conduct Mountain Pine Beetle response. It is our belief that the Forest Service has passed up opportunities to streamline NEPA reviews and expedite project implementation in fire prone forests. It is important to note that HFRA preserves public involvement, encourages collaboration, and provides for judicial review, while balancing the long and short term harms of action versus inaction.

Agency Response:

Comment noted.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 32 **Comment No:** 1 **Resource:** Plan

Brenneisen, Dave

Comment:

I would like to thank you and your staff for recognizing the need for a new type of management tool; one which will allow forest managers to fill in the treatment gaps left within and between past projects. In allowing you to react quickly after each year's mountain pine beetle flight and apply the appropriate treatments in the areas where they are needed most, the Mountain Pine Beetle Response Project has tremendous potential to facilitate our collective effort to slow the current epidemic. Thank you for the opportunity to submit the following comments on the Mountain Pine Beetle Response Project Draft Environmental Impact Statement.

On this particular project, Alternative A, the No Action alternative, provides the most striking contrast to the Purpose Of and Need for Action that I have ever seen. The No Action alternative goes beyond the simple non-accomplishment of the purpose and need. No Action would actually serve to worsen the forest condition that gave rise to this project in the first place. While it must be included in the analysis, it should not be given serious consideration. It is hard to imagine a project for which there could be a more widespread and urgently felt need by the public for action.

The two action alternatives would each work toward fulfilling the Purpose and Need to differing degrees, based on the extent to which they each depart from the No Action alternative. With thousands of acres of untreated stands in recent project areas now devoid of mature pine cover, the fate of high risk stands left untreated in the future is almost a certainty.

Alternative B, in dropping from 242,000 acres of high risk stands to 193,600 acres, does some good, but not enough.

Alternative C proposes to accomplish everything that Alternative B does, and then some. The additional 75,600 acres of high risk stands treated under Alternative C greatly improve our overall chances of success in slowing the epidemic. In addition, the public has expressed its desire, through overwhelming support of cooperative beetle reduction projects and through comments on this project, that as much active management as possible be done toward slowing the progress of this epidemic.

I urge you to select Alternative C. It goes the furthest toward accomplishment of the Purpose and Need, does the best job of cooperative with the Counties, States, Landowners, and other groups working toward a solution, and give us the best chance of maintaining a diverse forest.

Agency Response:

Comment noted.

Letter No: 32 **Comment No:** 2 **Resource:** Vegetation

Brenneisen, Dave

Comment:

Within Alternative C, steps can be taken at the implementation level to further improve the effectiveness of treatments, such as:

- thinning stands to a basal area of 70 rather than 40, to allow the treatment of more acreage with a limited commercial harvest capacity;
- prioritizing treatments toward areas with a history of past management and away from areas such as the Southern Hills Management Area; and
- utilizing existing unclassified roads and keeping system road construction and reconstruction to a minimum.

Agency Response:

Comments noted.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 33 **Comment No:** 1 **Resource:** Plan

Biodiversity Conservation Alliance

Comment:

Thank you for the opportunity to present our comments on the Mountain Pine Beetle (MPB) Response Project DEIS. We offer the following points in the hope of facilitating management based upon sound science and ecology.

Many of these comments reflect or are verbatim from our scoping comments. Any applicable information from our scoping comments, even if not explicitly included in these comments, are incorporated by reference. Included in Biodiversity Conservation Alliance's (hereafter, BCA) comments are comments prepared by Dr. Chad Hanson. Please note that BCA and the Prairie Hills Audubon Society have signed on to Dr. Hanson's comments. Dr. Hanson and the Prairie Hills Audubon Society have also signed on to our comments.

Agency Response:

Comment noted.

Letter No: 33 **Comment No:** 2 **Resource:** Plan

Biodiversity Conservation Alliance

Comment:

Best available science is suggesting that drought and warming annual temperatures and the shifting of temperature patterns is one of the major drivers of this current beetle outbreak. Whether the Service attributes climate change to human causes or natural causes or some combination thereof the Service must recognize that logging (under any treatment name) is an added negative impact to both the trees logged and the soil, water, air and wildlife impacted by the inevitable damage inflicted by the actions involved. BCA and the undersigned agree with the vast majority of scientific literature that climate change is attributable, to a great extent, by anthropogenic factors, or i.e., human impacts. We request the Service to consider that impacts from logging practices, of all kinds, add to the existing negative impacts the Service already recognizes beginning with the beetle outbreak. Cumulative impacts must be considered by the Service in accordance with the National Environmental Policy Act (NEPA).

Agency Response:

See Agency Response to Letter 27, Comment 25.

Letter No: 33 **Comment No:** 3 **Resource:** Vegetation

Biodiversity Conservation Alliance

Comment:

BCA has presented in previous Black Hills and other Region 2 National Forest project comments that Rick Cables, Regional Forester for Region 2 of the U.S. Forest Service, testified before U.S. House of Representatives Subcommittees that "[t]hinning stands has proved ineffective" to stop the current infestation of mountain pine beetles. BCA objection to the Nautilus FEIS, Appendix E, page E-8.

Agency Response:

The statements of the Regional Forester are taken out of context by the commenter. Mr. Cable's testimony is referring to the Colorado beetle forests where thousands of acres of beetle-killed trees, predominantly lodgepole pine, already cover the landscape; thinning in that situation is ineffective. In contrast, while beetles are at epidemic levels in the Black Hills and intensifying, the evidence is clear by field observations of minimal mountain pine beetle attacks in thinned stands that thinning ponderosa pine, which is dominant in the Black Hills, ahead of beetle infestations is effective (Shepperd and Battaglia 2002). Aerial photography of the infestations on the Forest over the past five years demonstrates the efficacy of previous scientific research. Projects such as MPBR are designed to thin forest stands ahead of the beetle outbreaks by increasing individual tree and stand vigor and resilience, and creating conditions less suitable for beetle infestation and high-intensity wildfire.

Long-term research in the Black Hills summarized in Schmid et al (2007) found that "the greater the size of the partial cut, the lower the percentage of subsequent total mortality in the cut stand" and concludes that "Constant silvicultural action is a must if the BHNF is to ever extricate itself from the periodic appearances of MPB epidemics in its timber managed areas."

Differences between what Mr. Cables was addressing and the MPBR Project include: Host species, (lodgepole vs. ponderosa pine), stage of MPB infestation, and size of the MPB population.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 33 **Comment No:** 4 **Resource:** Vegetation

Biodiversity Conservation Alliance

Comment:

The Black Hills Mountain Pine Beetle Response Project

The Black Hills National Forest says, "The Forest Service is working hard to manage the increasing populations of mountain pine beetle (MPB) and to help protect communities, watersheds, and the natural resources from severe wildfire by treating hazardous fuels across the Forest."

But this huge project would log and/or burn much of the 242,000 acres of forest in the project area.

Contrary to sound science and well over a decade of glaring evidence, Black Hills National Forest managers are making claims that simply reflect dogma and undocumented claims. Not one Rocky Mountain Region national forest in the United States or Canadian national forest has been definitively protected from the MPB outbreak because of Forest Service officials' efforts. Not one project can be scientifically documented to represent a cause and effect response to treatments.

From Canada's vast pine forests to New Mexico's national forests, grandiose logging projects conducted in the name of controlling beetles and preventing wildfires have failed miserably at both. In addition, these ineffective logging projects invoke staggering economic costs and impose large-scale environmental impacts to forest landscapes and wildlife habitat resulting in the degradation of conditions essential to the maintenance of wildlife viability.

Mostly outdated claims that logging can control beetles and wildfire are documented to have originated from timber industry and/or Forest Service studies. Independent scientific studies tell a different story.

Independent scientist have found that, at best, immediately removing the first beetle infested trees from a forest "might" be effective to slow their spread on a small scale but certainly will stop the spread. And claims that catastrophic wildfire risks are greatly increased after beetle kill are exaggerated. A growing body of independent scientific research is suggesting that beetle-killed stands forest may in face reduce fire risks, the rate of spread, and the overall intensity of fire behavior. To ignore this body of growing evidence is to violate the letter and intent of the NEPA.

Agency Response:

Comment noted.

The Forest's best available science of research supporting thinning to lower basal areas are Schmid 2007, Negron 2007, Boldt 1974, McCambridge 1982, Shepperd & Battaglia 2002.

See Agency Response to Letter 33, Comment 3.

The MPBR Project ID Team has reviewed all literature citations provided in scoping or comments to the DEIS. There is uncertainty which independent scientists' report is being cited in the comment.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 33 **Comment No:** 5 **Resource:** Vegetation

Biodiversity Conservation Alliance

Comment:

Black Hills National Forest managers are proposing to repeat those so-called beetle control and wildfire prevention efforts and they seemingly expect a result different from all those previous failures. This 242,000 acre project is being shoved down the public's throat as medicine that will save a sick forest. In fact, logging is no more effective for improving beetle infested forest health than the snake-oil of the past was for improving the health of the unwitting buyer. Both beetles and wildfire play crucial positive roles in forest ecology and the Service is failing miserably to present these positive attributes to a public from whom they seek input. The Service is likewise dismissing, with prejudice, scientific literature that exposes the errors and false claims made in this proposed project.

Agency Response:

See Agency Response to Letter 33, Comments 4 and 9.

The MPBR Project Purpose Of and Need for Action DEIS page 25-26 addresses the positive attributes to the public and summarized in the following:

"The MPB Response Project is designed to reduce the threat to ecosystem components from the existing insect and disease (MPB) epidemic; help protect forested areas on adjacent private and state lands; and to alleviate potential adverse effects of the beetle epidemic on Forest resources.

There is a need to be more efficient and timely in treating newly infested areas of MPB across the Forest. As an adaptive project, provides a more timely and effective response as well as allowing the Forest more flexibility in responding to MPB outbreaks by allowing the use of a suite of tools to reduce or blunt MPB. Secondly, there is a need to manage hazardous fuel loading associated with the MPB epidemic and conduct sanitation/salvage operations to minimize the potential for large high intensity/high severity wildfires. There is a need to maintain or improve forest health and vigor on a landscape scale with the objective of maintaining a healthy forest that is less susceptible to forest insects and diseases, and can better withstand events such as wildfire, wind, snow, drought, or other weather related impacts. There is a need to appreciably slow or halt the ongoing development and spread of mountain pine beetle (MPB) in the project area. The implications of continued spread of this epidemic include: increased tree mortality across the landscape; further accumulation of hazardous fuels and increased potential for severe large-scale wildfires threatening forest resources and values of the WUI within the area and beyond; major changes in the scenery; alteration of wildlife habitat; and impacts to soil and water resources. Associated with the need to address the MPB epidemic is the need to reduce the potential for severe large-scale wildfire. This can be accomplished by breaking up the continuity and implementing a variety of vegetation management treatments to thin and reinvigorate pine stands, reduce forest fuels, and to facilitate effective wildfire suppression/protection in the area – much of which is WUI.

In association with the focus on improving forest health in the project area, stemming the advance of MPB, and reducing fuels/fire hazard, there is an opportunity to address other Forest Plan objectives. These include maintaining or improving wildlife/plant habitat, providing forest products to local industry, and providing for other resource amenities and uses."

Letter No: 33 **Comment No:** 6 **Resource:** Fire/Fuels

Biodiversity Conservation Alliance

Comment:

We ask why the Service does not explain with detail and enthusiasm the positive short- and long-term benefits provided by beetles when such great pains have been taken to wordsmith the "perils" of beetles. BCA is imploring Black Hills managers to greatly scale back this huge project and focus on Wildland Urban interface (WUI) projects where a real and cost effective difference can be made to protect private property and to minimize health and safety risks to people should wildfire occur. We do not dispute the "potential perils" beetle-kill presents but it is patently negligent and misleading to the public when the benefits are not mentioned, much less discussed.

Agency Response:

The wildlife section in the Mountain Pine Beetle Response Project DEIS explains some benefits of mountain pine beetles. Snags resulting from death of pine trees are an important habitat component for cavity nesting and foraging birds and mammals. When trees fall they add to the coarse woody debris on the forest floor, which provides wildlife habitat as well. Mountain pine beetles are a food source for black-backed woodpeckers, so with the beetle epidemic the population of woodpeckers has also increased.

The majority of the project area falls within identified WUI within the forest boundary. There are approximately 300,000 acres of private land within the project area which is characterized by extensive structure and subdivision development, 56 at-risk communities, utility infrastructure, businesses, outbuildings, recreation sites, and community watersheds. By doing a large scale EIS it will give managers the flexibility to focus on areas of WUI on their districts where the greatest need for treatments may exist.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 33 **Comment No:** 7 **Resource:** Vegetation

Biodiversity Conservation Alliance

Comment:

The DEIS has reduced the size of the potential treatment area to 242,000 acres but fails to explain, in scientific terms, how treatments on this reduced acreage will be any more effective than on the original 325,000 acres.

Agency Response:

See Agency Response to Letter 6, Comment 2.

Letter No: 33 **Comment No:** 8 **Resource:** Vegetation

Biodiversity Conservation Alliance

Comment:

We ask the Service what measures have been taken on adjacent—lands not managed by the Forest Service—to assure that beetles infesting nearby trees do not simply proliferate and disperse next generation beetles into proposed treatment areas, rendering those treatments useless. It is clear that emergent beetles routinely disperse 30 to 50 meters and, taking advantage of wind, may disperse a mile and greater distances to begin their cycle anew in prior year beetle infested trees and trees not infested, alike.

Agency Response:

MPBR public involvement and collaboration is addressed on DEIS page 28. The social issue is addressed on page 30-31.

See Agency Response to Letter 15, Comment 3.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 33 **Comment No:** 9 **Resource:** Plan

Biodiversity Conservation Alliance

Comment:

We understand that the HFRA gives authority to “expedite vegetation treatment” but this authority does not permit the Service to sidestep the National Environmental Policy Act (NEPA) or the myriad of standards, rules, guidelines and policies and practices that serve to assure the use of best available science, best management practices, and where appropriate to exercise the precautionary principle. Not one shred of scientific information suggests that thinning or any other form of so-called “vegetation treatment” will stop or even slow the MPB outbreak in the Black Hills National Forest. The Black Hills has repeatedly stated to BCA and others questioning the effectiveness of treatments for the stated purpose that there is no science on predominantly ponderosa pine forest responses to treatments intended to slow the spread of the mountain pine beetle. This claim is true but if there is no science on ponderosa pine forest responses to treatments intended to slow the spread of the mountain pine beetle how can the Service claim its treatments are effective, cost-effective, and not harmful to the affected forest and its wildlife?

Agency Response:

HFRA does provide for expedited administrative procedures for authorized projects, such as MPBR Project. This however does not change the required resource analysis of project impacts under NEPA.

The specialist for the MPBR Project have utilized best available science, including the most recent Forest Plan Monitoring data, Phase II Amendment FEIS, species conservation assessments, peer reviewed journal articles, and citations submitted during public involvement.

In the Black Hills, reducing stand density is a proven method for reducing susceptibility of stands to MPB caused mortality. Recent research continues to emphasize that overall, the lower the residual stand density, the greater the reduction in beetle caused mortality, in even and uneven aged stands (Schmid et al. 2007 and Negron et al. 2008).

Please see Forest Plan FEIS page III-385 and Appendix B-14 Table B5. Less dense stands are more likely to be resilient to mountain pine beetle outbreaks than dense stands. Please see: Schmid, J.M.; Mata, S.A.; Kessler, R.R.; Popp, J.B. 2007. The influence of partial cutting on mountain pine beetle-caused tree mortality in Black Hills ponderosa pine stands. Res. Pap. RMRS-RP-68 Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.

The factors of average tree size and stand density are those used to estimate risk of infestation. Other factors which include beetle populations in a given area, may impact the potential for infestation.

Thinning stands produces trees that are more vigorous. Stands that are more vigorous, thinned, will produce trees that have better phloem quality, however, the change in microclimate habitat causing the beetles to not like the thinned stands is a greater deterrent than the increase in phloem quality. Unthinned stands are always in a functional drought as trees compete with each other for water and other resources. This reduces the amount of oleoresins that are produced, which are the trees main defense against MPB. Thinning also produces greater air circulation which causes a change in the dispersal of aggregation pheromones. Again, long term research has consistently shown that stands with reduced basal area are less likely to sustain a MPB epidemic than unthinned stands, Schmid, J.M.; Mata, S.A. 2005. Mountain pine beetle-caused tree mortality in partially cut plots surrounded by unmanaged stands. Res. Pap. RMRS-RP-54. Fort Collins, CO: USDA, Forest Service, Rocky Mountain Research Station. 11 p; and Schmid, J.M.; Mata, S.A.; Kessler, R.R.; Popp, J.B. 2007. The influence of partial cutting on mountain pine beetle-caused tree mortality in Black Hills ponderosa pine stands. Res. Pap. RMRS-RP-68 Fort Collins, CO: USDA, Forest Service, Rocky Mountain Research Station. 19 p.)

Letter No: 33 **Comment No:** 10 **Resource:** Vegetation

Biodiversity Conservation Alliance

Comment:

We fully agree with the Service’s claim below but we must ask the Forest Service to explain why the option of allowing the mountain pine beetle, as is its natural role, to thin and fertilize the forest is not preferable to the destructive forces of mechanical thinning, also known as logging. In doing so the beetles initiate an entire new cycle of bird, mammal, reptile, amphibian and fish ecology throughout the region.

The Service states, “Insect infestations, especially the mountain pine beetle, also played a role in thinning dense stands.”

The Service states, “The MPB Response Project is designed to reduce the threat to ecosystem components from the existing insect and disease (MPB) epidemic; help protect forested areas on adjacent private and state lands; and to alleviate potential adverse effects of the beetle epidemic on Forest resources.”

Agency Response:

Comments noted.

See Agency Response to Letter 24, Comment 7; Letter 27, Comment 2; and Letter 27, Comment 12.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 33 **Comment No:** 11 **Resource:** Vegetation

Biodiversity Conservation Alliance

Comment:

The Pactola Scoping document was issued on July 28, 2010. Nearly two years have transpired since this document was issued. The Service cannot rightfully claim that this proposed 325K acre project is “nipping in the bud,” so to speak, the mountain pine beetle epidemic. By its own admission, the epidemic is “widespread” and “spreading rapidly.” And by the Service’s own claims, treatments are only effective to mitigate the spread and impacts of mountain pine beetles if performed in the earliest stage of the outbreak (not the early stage of a full blown, rapidly spreading epidemic). Needles of beetle-killed trees have already begun to fall, reducing (not increasing) the threat of crown fires—the most threatening form of forest fire.

The FS claims in its Pactola FEIS, for example, that thinning will reduce the beetle spread and impact approximately 140 times and in no instance does the Service provide a scientific reference that supports these repeated claims. With all the repeated claims of the effectiveness of thinning to reduce beetle spread, only one study—a Forest Service study—appears in the Pactola bibliography and its conclusions are essentially inconclusive. The citation the Service offered to support thinning (McCambridge and Stevens 1982) stated “Suppression of large-scale mountain pine beetle epidemics is hypothetically possible, especially during the early phase of an epidemic, but it is unlikely due to the major physical and financial commitment required.” And the authors go on to say, “Focusing on mountain pine beetles alone may amplify other problems like dwarf mistletoe infestation (Hawksworth and Johnson 1989).” It is clear from this and many other examples that the Service is cherry-picking science to justify a predetermined plan of action.

The Service states, “The Proposed Action would treat newly infested MPB areas on approximately 242,000 acres of National Forest System lands to reduce and slow the spread of MPB. Specifically, newly infested areas detected annually would be treated using a variety of treatment options to address conditions encountered on the infested sites. These Integrated Pest Management techniques would be applied to reduce the spread of MPB across the lands in the Black Hills and to manage and protect ecosystem components.”

Focusing efforts on 242,000 acres of forest in an attempt to control essentially uncontrollable beetles will create more problems than would possibly be solved with all the degradation and outright destruction that accompanies logging operations. We agree with scientists warnings that, “Focusing on mountain pine beetles alone may amplify other problems like dwarf mistletoe infestation (Hawksworth and Johnson 1989)

Agency Response:

The Forest’s best available science of research supporting thinning to lower basal areas are Schmid 2007, Negron 2007, Boldt 1974, McCambridge 1982, Shepperd & Battaglia 2002.

See Agency Response to Letter 33, Comment 9.

In their review examining 498 scientific publications, Fettig et al. (2007) concluded “Factors involving tree density are consistently associated with the occurrence and severity of bark beetle infestations. Management to reduce stand or landscape-level susceptibility to bark beetles must address factors related to tree density. Accordingly, thinning has long been advocated as a preventative measure to reduce the amount of bark beetle-caused tree mortality and its effectiveness for this purpose is supported by the scientific literature.”

All known responsible science conducted in ponderosa pine supports the value of thinning in reducing subsequent mortality from MPB (Fettig et al. 2007).

Research specific to the Black Hills concludes that silvicultural treatment to reduce tree density is successful in reducing mortality from mountain pine beetle infestations. The Black Hills National Forest included this science in the recent Phase II Forest Plan amendment (Allen and Cook, 2008).

To be effective in reducing MPB mortality, thinning, in addition to sanitation, is necessary in overstocked stands of relatively large diameter trees (McCambridge et al. 1982).

McCambridge and Stevens (1982) reported evidence that thinning can reduce MPB-caused mortality, and was consistent with subjective observations that thinning dense, second-growth ponderosa pine is effective in preventing unacceptable levels of beetle caused mortality in the Black Hills.

Both prescribed fire and mechanical techniques can be used to change the forest structure and encourage the regeneration and development of ponderosa pine, especially as an early seral species, within interspersed mosaics. If the structure were changed, such forests may be resistant and resilient to native insects and diseases, uncharacteristically severe wildfires, and be beneficial to many wildlife species (Graham and Jain 2005).

Pollett and Omi (2002) found that, in ponderosa pine stands, treatments that reduce density and change the composition of stands will reduce probability of crown fires, decrease the severity of impacts, and enhance fire suppression effectiveness and safety.

Graham et al (2004) found that thinning followed by prescribed burning was particularly effective in reducing the risk of high intensity fire in ponderosa pine. The commenter does not provide citations for scientific research refuting these findings.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 33 **Comment No:** 12 **Resource:** Vegetation

Biodiversity Conservation Alliance

Comment:

The Service admits in the preceding paragraph that its efforts, due to natural causes, may be ineffective. Interestingly, the Service has previously described in its Purpose and Need Statements that conditions already exist and will continue to exist that will render treatments ineffective. We ask the Service to explain why it remains so doggedly determined to waste time and resources and to risk irreparable and irrecoverable impacts when science and its own statements predict virtually no potential for significant success.

Agency Response:

See Agency Response to Letter 33, Comment 9.

Letter No: 33 **Comment No:** 13 **Resource:** Plan

Biodiversity Conservation Alliance

Comment:

The Service offers no scientific methodology or schedule for monitoring and evaluating the success/failure of its "treatments" that will supposedly "Reduce the threat to ecosystem components, including forest resources, from the existing mountain pine beetle epidemic."

Agency Response:

See Agency Response to Letter 8, Comment 5 and Letter 28, Comment 10.

Letter No: 33 **Comment No:** 14 **Resource:** Fire/Fuels

Biodiversity Conservation Alliance

Comment:

We do not oppose Service efforts to protect private property given the private property owners have done their part to protect themselves. But we do oppose the treatment methods the Service is proposing.

The Service states, "Treatment Actions and Methods we are proposing include one or a combination of the following:"

Thinning: Removing some of the trees in a stand to meet desired conditions. Thinning may include commercial and non-Commercial operations with the objective of reducing MPB infestations and fuel loads. Sanitation harvest to remove trees occupied by MPB may be conducted to reduce populations and limit their spread.

Thinning beyond the typical 200 feet ignition zone loses effectiveness exponentially to about ¼ mile from the nearest structure. Beyond this distance thinning is of insignificant consequences per Jack Cohen, former USDA Forest Service employee and wildfire expert. Based on the information presented in the DEIS we continue to oppose nearly all proposed actions excepting, conservative but thorough treatment of WUI areas as generally recommended by Jack Cohen, former USDA Forest Service wildfire specialist, and by WUI experts across the nation.

Agency Response:

The Pine Beetle Response Project not only addresses thinning in the WUI but also includes a strong element of forest health. Thinning outside of the 200' ignition zone is supported by the following:

The Schmid et al. 2007 publication has language addressing management of Ponderosa pine stands starting on page 17 of the document. The following is quoted:

"The greater implication of these results is the management of PP stands to minimize MPB-caused mortality in relation to the BHNH Management Plan. Graham and Knight (1965) succinctly state that forest insect management is an integral part of forest management. The most important aspect of managing mature PP stands on the BHNH is minimizing MPB-caused mortality. If forest managers are to achieve long-term multiple objectives, managers need to assume that minimization of MPB-caused mortality is the primary objective in stands where incipient epidemic MPB populations arise and should temporarily relegate other objectives to secondary status until the immediate threat from epidemic MPB populations has been eliminated. While this approach may be contrary to the principle of multiple use and many objectives within the BHNH Plan, it is essential to achieving many of the Plan's long-term multiple objectives."

MPB Response EIS Public Comment and Agency Response Report

Letter No: 33 **Comment No:** 15 **Resource:** Vegetation

Biodiversity Conservation Alliance

Comment:

Cut/Chunk: Hand felling of MPB hit trees and bucking into one to one and one half foot lengths.

What benefit is to be gained from this effort?

Agency Response:

Forest Health document rcsc_8_11 cutandchunk.doc by K.Allen September 2011 states on page3: "It is best suited for smaller infestations that can be treated to remove beetles from a stand which is generally 80% effective for mountain pine beetle mortality."

Letter No: 33 **Comment No:** 16 **Resource:** Vegetation

Biodiversity Conservation Alliance

Comment:

Chipping: taking felled trees through a machine producing wood chips and blown into trucks or onto the ground.

What benefit is to be gained from this effort aside from providing more combustible fine fuel or raw product

Agency Response:

Chipping may be primarily implemented in campgrounds and highly visible road corridors when log removal is not implementable. Chips may be left in place or hauled off to meet management objectives.

Fine fuels burn quicker than large diameter fuels, so in the event of a wildfire there will be less intensity, a shorter duration fire, and fewer long term negative impacts with the chips versus trees on the ground. There will also be shorter flame lengths which will allow direct attack by firefighters with hand tools, whereas if there is a buildup of large fuels, resulting in high flame lengths, dozers will be needed to construct fire line or indirect tactics will be required. By chipping the trees the mountain pine beetles are likely to be killed in the process. If the trees are cut into chunks and left to dry there is a chance that some beetles will survive to fly to live green trees in the following months.

Letter No: 33 **Comment No:** 17 **Resource:** Vegetation

Biodiversity Conservation Alliance

Comment:

Given the discussion (above) from "first bullet point, Spraying:", to the last bullet point about green trees it appears the Service is recognizing, as the only restraint to its proposed actions, inaccessibility. In other words, if the Service can get to it, it will log it. It appears the Service has written itself carte blanche permission to log any area of the forest it wishes. The DEIS simply proposes to reduce the treatment acreage while retaining use of the unsubstantiated rationale given in the Scoping document.

Agency Response:

See Agency Response to Letter 33, Comment 5.

Alternative C treats 50% of the potential treatment areas, high fire hazard and high mountain pine beetle infestation risk stands (DEIS page 36-38).

Letter No: 33 **Comment No:** 18 **Resource:** Wildlife

Biodiversity Conservation Alliance

Comment:

Wildlife viability has long been an area of management we have stressed in our comments on projects in the Black Hills. We continue to have concerns that the Service is failing to manage properly for wildlife viability. This proposed large-scale logging project reinforces our ongoing claim that the BHNF management seeks opportunities to log the forest irrespective of impacts on wildlife ranging from, but certainly not limited to, the American dipper to the Black Hills redbelly snake, the American marten, northern flying squirrel, and black-backed woodpecker. Eleven or twelve bat species occupy the BHNF, 8 of which are permanent BHNF residents.

Agency Response:

See Agency Response to Letter 27, Comment 18.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 33 **Comment No:** 19 **Resource:** Wildlife

Biodiversity Conservation Alliance

Comment:

Roost availability affects species distribution. Bats with specific roost requirements are more susceptible to changes in habitat than more opportunistic species. Human induced change, such as firewood collection, timber harvest, natural or deliberate mine closure, and disturbance or vandalism within natural caves all can influence roost availability resulting in changes in distribution. In addition to roost availability, proximity to other requirements, such as foraging areas, can affect distribution.

We do not see evidence that the Service has fully assessed the conservation status of all BHNH bat species in light of the current beetle outbreak using best available science. Bat species may be one of the most impacted species by this proposed project.

Agency Response:

The direct and indirect effects from this project on bats were discussed in the DEIS on pages 197 and 209. The incremental additive impacts to wildlife from this project combined with other activities, including human induced change, is included in the cumulative effects discussion beginning on page 216 of the DEIS. The cumulative effects to snags, often used by bats as roosts, are discussed on page 217 of the DEIS. Vandalism and mine closure is not included in the cumulative effects because they are not a reasonably foreseeable project.

Letter No: 33 **Comment No:** 20 **Resource:** Botany

Biodiversity Conservation Alliance

Comment:

We incorporate, by reference, comments we (BCA) submitted on August 5, 2011 regarding the Briggs Spring Logging Project Draft EA. In those comments we addressed specific plant and animal species concerns especially those relating to Species of Local Concern. We request the Service consider the conservation status of and impacts to the species mentioned in our Briggs Spring Draft EA comments.

Agency Response:

All Black Hills plant Species of Local Concern (as defined in FSM Black Hills Supplement bh_supp_2600-2011-1) were analyzed for the Mountain Pine Beetle Response Project in the Botany Report.

Letter No: 33 **Comment No:** 21 **Resource:** Vegetation

Biodiversity Conservation Alliance

Comment:

We object to use of pesticides near Spearfish Canyon. We also believe the Service has failed to assess the cumulative impacts associated with the Deadwood Standard mine, which is proposed for rim of Spearfish Canyon.

Agency Response:

Comment noted.

Cumulative effects in Appendix C of DEIS has information on proposed mining.

Letter No: 33 **Comment No:** 22 **Resource:** Plan

Biodiversity Conservation Alliance

Comment:

We are concerned about cumulative impacts from logging, roads, mines and residential development.

Agency Response:

See Agency Response to Letter 24, Comment 1.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 33 **Comment No:** 23 **Resource:** Hydro

Biodiversity Conservation Alliance

Comment:

We are concerned about cumulative adverse water quality effects from mines, residential development and the potential logging/ and associated road building/rebuilding and any insecticide use in Spearfish Canyon drainage to the American dipper (*Cinclus mexicanus*) and fish. We wish the FS to discuss cumulative impacts from these sources. While the proposed Deadwood Standard mine will be high above on the rim, there may be underground hydrologic connections to the Canyons water and by-pass events may release to surface waters. Sedimentation via road runoff will be cumulative with both residential, mine and logging roads. The dipper needs good water quality and sufficient water flow/quantity. Sedimentation adversely impacts dipper.

Agency Response:

See Agency Response to Letter 24, Comment 2.

Letter No: 33 **Comment No:** 24 **Resource:** Wildlife

Biodiversity Conservation Alliance

Comment:

We are also concerned about any cumulative effects of logging and mining to the Black Hills mountain snail (*Oreohelix cooperi*). The 2003 ESA listing petition filed by PHAS and other groups for this snail and the denial can also be reviewed on the SD USFWS web page. The Forest Service should review all known Black Hills mountain snail locations in the Spearfish Canyon drainage, to see if any locations are in seeps or springs that could be affected by water quality issues arising from uses on top of the mesa/ridge, as well as activities in Canyon

Agency Response:

See Agency Response to Letter 24, Comment 3.

Letter No: 33 **Comment No:** 25 **Resource:** Plan

Biodiversity Conservation Alliance

Comment:

We are also opposed to the proposed logging in Spearfish Canyon in Alternative C and request that you do not choose to log in the Canyon.

Agency Response:

Comment noted.

Letter No: 33 **Comment No:** 26 **Resource:** Plan

Biodiversity Conservation Alliance

Comment:

Inadequate Range of Alternatives

The DEIS only considers two action alternatives—the Proposed Action (Alternative B) and an even more intensive logging alternative (Alternative C). The DEIS fails to fully consider a reasonable range of alternatives, in violation of NEPA, for three main reasons. First, the DEIS asserts that reducing the potential for high-severity fire is one of two goals of the project, and proposes intensive mechanical thinning, including removal of larger mature trees and reduction of stands down to low levels of basal area, ostensibly to reduce potential for severe fire. However, recent scientific studies have found that precommercial thinning of sapling and pole-sized trees only (up to about 8 or 9 inches in diameter) effectively reduces fire severity, and that this result applies even if the remaining post-thinning stand density is high in terms of basal area.

Agency Response:

See Agency Response to Letter 24, Comment 19.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 33 **Comment No:** 27 **Resource:** Vegetation

Biodiversity Conservation Alliance

Comment:

Second, the DEIS states that, in order to meet the other stated purpose and need—i.e., to minimize tree mortality—the Proposed Action will substantially reduce stand density. Because the DEIS does not state what the extent of stand density reduction would be in terms of basal area per acre removed and remaining post-logging, we assume, for the purposes of these comments, that it would be similar to the currently proposed Vestal Project, which would reduce stands down to a mere 60 square feet per acre of basal area, or considerably lower on most acres (FEIS, pp. 17-18). The Vestal FEIS states (pp. 36-37) that the “[h]igh-risk” stands have current basal area over 100 square feet per acre, and that 61% of the project area is currently in this state. Therefore, the Proposed Action would directly cause, through logging, tree mortality of at least 40-50%—and in many areas at least 60-70%—ostensibly in order to prevent high tree mortality from beetles. However, neither the MPB Response Project DEIS nor the Vestal FEIS (pp. 36-37) provides a single scientific citation to support the notion that mortality levels anywhere near the levels that would be caused by logging would be likely to occur on average in stands with basal area 60-100 or >100 square feet per acre due to beetles. In fact, at basal area levels over 100 square feet per acre in ponderosa pine forests, the scientific data indicates that only about 5-15% mortality occurs (Larsson et al. 1983, Cochran and Barrett 1995, Cochran and Barrett 1999, Oliver 2005, Fettig 2012). Nothing in the scientific data indicates that average mortality levels even close to those that would be caused by logging in this project area likely at basal area levels of 60-100 or >100 square feet per acre. Thus, an alternative that would retain considerably higher levels of basal area than the Proposed Action, was reasonable and was required to be considered fully.

Agency Response:

DEIS page 121 for Alt.B and page 126 for Alt.C states “basal areas for commercial thinning would be from 40 to 80 BA.” This level is residual basal area.

The most effective measures to reduce MPB risk are to implement prevention treatments to reduce stand density and to suppress by conducting sanitation efforts.

See Research literature Schmid 2007, Negron 2007.

See Agency Response to Letter 24, Comment 7.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 33 **Comment No:** 28 **Resource:** Wildlife

Biodiversity Conservation Alliance

Comment:

Third, as discussed in scoping, the Black-backed Woodpecker, a Sensitive Species on the forest, is strongly associated with very high levels of beetle or fire mortality in stands that have well over 100 square feet per acre of basal area, such that, after beetle mortality or fire, snag basal area is generally at least 80 square feet per acre, resulting in well over 100 snags per acre (Goggans et al. 1989, Bonnot et al. 2009, Saab et al. 2009). Bonnot et al. (2009) examined habitat attributes around 42 Black-backed Woodpecker nests in beetle-killed forests in the Black Hills, South Dakota. Important predictors of nest-site selection were wood-boring insect abundance in a 20 ha plot around the nest, density of all pine and aspen snags in a 12.5 m plot around the nest, and the diameter of the nest tree. Site selection was most strongly associated with a high abundance of wood-boring insects. Bonnot et al. (2009) found that Black-backed Woodpeckers used areas with an average of 268 snags per hectare, or 109 per acre, for nest areas (see p. 224 of Bonnot et al. 2009). The birds used areas of somewhat older beetle kill (3–5 years old), mixed with aspen, for nesting, and selected such areas where they were within 50-100 meters of large patches of even higher levels of beetle kill (Bonnot et al. 2009, p. 226 and Fig. 4). If patches of very high beetle mortality were more than 150–200 meters away from a given potential nest site, territory selection probability dropped to near zero, due to lack of available and accessible food, indicating that Black-backed Woodpeckers need well-distributed large patches of very high beetle mortality to establish successful territories and maintain viable populations (Bonnot et al. 2009, p. 225, Fig. 2). Exhaustive analysis of historic U.S. government surveys circa 1900 found that large expanses of high beetle mortality, and high-severity fire, are a natural part of the ecology in the Black Hills National Forest (Shinneman and Baker 1997, Bonnot et al. 2009). For this reason, pre-fire stand density reduction from logging dramatically reduces potential Black-backed Woodpecker habitat when and if an area later burns (Hutto 2008) (see figure below from Hutto 2008). Further, as discussed below, the Forest Service is failing to ensure the viability of the Black-backed Woodpecker. In light of this, and in light of the foregoing, the Forest Service is obligated under NEPA to fully consider an alternative that would be more protective of Black-backed Woodpecker habitat and populations.

The Forest Service has failed to determine the quantity and quality of habitat necessary to maintain viable populations of the Black-backed Woodpecker—a USFS Sensitive Species for which the USFS is required by its own plans, rules and policies to maintain at least minimum viable populations on the Black Hills National Forest—and has failed to determine whether the Proposed Action would push Black-backed Woodpecker habitat, and therefore populations, below the critical viability threshold. As such, the Forest Service has failed to ensure that the MPB Project will not, both individually and cumulatively (e.g., cumulative impacts from the Vestal Project), threaten the viability of the Black-backed Woodpecker on the Black Hills National Forest, in violation of NFMA (see also discussion in the section immediately below).

Agency Response:

See Agency Response to Letter 27, Comment 21 and Letter 24, Comment 19.

Letter No: 33 **Comment No:** 29 **Resource:** Fire/Fuels

Biodiversity Conservation Alliance

Comment:

The EIS must fully consider an alternative that would conduct significantly less logging of trees over 9 inches in diameter than the Proposed Action, would allow greater retention of stand basal area to facilitate better future snag recruitment levels for Black-backed Woodpeckers and other cavity-nesting species, and which would also incorporate some prescribed burning, instead of logging, within units currently proposed for logging under the Proposed Action.

The DEIS (p. 44) rejects such an alternative from full consideration by claiming that prescribed burning and a 9-inch diameter limit would not be effective in all locations. This is simple misdirection. We are not suggesting that prescribed burning or a 9-inch diameter limit must occur on all of the 41,140 acres currently proposed for intensive commercial logging under the Proposed Action. However, it strains credulity to imagine that none of these 41,140 acres are suitable for any prescribed fire or a 9-inch diameter limit; nor does the DEIS make such a claim. Moreover, the DEIS (p. 44), in rejecting this reasonable alternative, fails to cite any scientific sources, or any data whatsoever, to justify the refusal to fully consider such an alternative.

Agency Response:

See Agency Response to Letter 9, Comment 3.

The burning of activity fuels would be conducted under both Alternative B and C.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 33 **Comment No:** 30 **Resource:** Wildlife

Biodiversity Conservation Alliance

Comment:

The DEIS fails to take a hard look at impacts and cumulative effects for at least three reasons:

First, DEIS (p. 191) concludes that the Proposed Action may affect Black-backed Woodpeckers (a Sensitive Species) but will not likely result in a loss of viability on the national forest. However, the DEIS (pp. 158-159, 185-186, and 191) fails to conduct the analysis necessary to make such a determination. Specifically, the Forest Service has failed to determine the quantity and quality of habitat necessary to maintain viable populations of the Black-backed Woodpecker and has failed to determine whether the Proposed Action would push Black-backed Woodpecker habitat, and therefore populations, below the critical viability threshold. Without such a determination, based upon current and accurate science, the DEIS's assertion that the Proposed Action poses no likely threat to the viability of Black-backed Woodpecker populations is arbitrary and capricious. As detailed in the petition to list this subspecies as threatened under the federal ESA (Hanson et al. 2012), which we incorporate by reference, the Black Hills population of Black-backed Woodpeckers is genetically distinct (at the level of subspecies) and isolated (Pierson et al. 2010), and there is a real and significant risk of extinction due to small and isolated population, wholly inadequate protections in the managed forest landscape, extremely small amount of protected forest on the landscape, and massively increased scope and scale of proposed habitat loss, prevention, and destruction through logging. Further, the DEIS fails to provide adequate analysis, or an adequate basis, to conclude that the project will not jeopardize Black-backed Woodpecker populations. The DEIS (p. 186) states that Black-backed Woodpecker habitat will decline as a result of this and other projects but, again, does not divulge whether sufficient habitat will remain post-project to maintain viable populations on the forest. Further, the current science (Traill et al. 2007, Traill et al. 2010) concludes that, for birds, there should be at least 3,400 adult individuals to prevent a significant risk of extinction in the relatively short-term, and the risk of extinction goes up dramatically as populations sink further below this threshold. Nowhere does the DEIS suggest that current Black-backed Woodpecker populations on the Black Hills are at or above this threshold. In addition, to the extent that the DEIS suggests or assumes that there is no need for concern because the Phase II forest plan amendment analysis determined that there will be sufficient habitat on the Forest to sustain Black-backed woodpeckers, we are not aware of any specific finding or population viability analysis regarding Black-backed Woodpeckers in the Phase II analysis. Further, as pages 95-96 of the federal petition to list the Black Hills population of the Black-backed Woodpecker under the federal ESA point out (Hanson et al. 2012, pp. 95-96), the Phase II forest plan's provision that "up to" 10,000 acres of suitable Black-backed Woodpecker habitat from recent fire or beetle mortality be retained unlogged provides only enough habitat for a tiny fraction of the birds needed for a minimum viable population according to the current science—science that was published after the Phase II analysis was conducted in 2006 and 2007. Thus, the Phase II analysis is not current and cannot be relied upon to meaningfully respond to our comments on this issue.

Agency Response:

See Agency Response to Letter 27, Comment 18.

The Viability analysis for Black-backed woodpeckers on the Black Hills NF is on pages III-242 through III-247 of the Phase II FEIS; and in Appendix C (pages BE-196 through 205) of the Phase II FEIS.

Letter No: 33 **Comment No:** 31 **Resource:** Wildlife

Biodiversity Conservation Alliance

Comment:

Second, the DEIS claims (p. 186) that tree spraying to repel pine beetles will not adversely affect Black-backed Woodpeckers or their prey, but provides no scientific citations whatsoever to support this statement. Moreover, the statement itself makes no sense in light of the DEIS's statements in the purpose and need and description of the alternatives, and elsewhere, that spraying beetle repellent is needed to reduce beetle populations.

Agency Response:

This statement has been modified for the FEIS. Tree spraying may affect individual black-backs if they occur in areas treated with spray. Tree spraying is also expected to reduce prey (insects) in treated areas. Tree spraying is not expected to reduce overall MPB population on the Forest due to its cost and limited use and, therefore, is not expected to reduce black-backed woodpecker populations across the Forest.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 33 **Comment No:** 32 **Resource:** Vegetation

Biodiversity Conservation Alliance

Comment:

Third, the description of the Proposed Action in the DEIS fails to divulge the current density of stands proposed for logging, in terms of basal area and trees per acre, or the current level of snag basal area or snags per acre in each unit proposed for logging. Perhaps even more troubling is the fact that the DEIS's description of the Proposed Action does not divulge how much the proposed logging would reduce the current live tree basal area relative to current levels. In addition, neither the Vegetation nor the Wildlife sections in the DEIS contains this information either. Moreover, because the DEIS does not provide this basic information, there is no way for the public to clearly evaluate whether the logging under the Proposed Action would directly cause, through chainsaws, higher basal area mortality (or mortality in terms of trees per acre) than would result from beetles, based upon the best available science—including in the "large" (9-16 inches in diameter at breast height) and "very large" (over 16 inches in diameter at breast height) tree categories. Further, the structural stage categories in the Vegetation section do not provide information necessary to address this question, since basal area and trees per acre—both live and dead in all size classes—can vary dramatically within any of the listed structural stages. Without this information, there is no way the public can meaningfully assess and know the impacts of the project, which violates NEPA's hard look requirement.

Agency Response:

The high risk stands are structural stage 3B/3C/4B/4C. The structural stage attribute is the stand level characteristic used to identify the high risk stands from the electronic vegetation database.

See Agency Response to Letter 33, Comment 27.

Letter No: 33 **Comment No:** 33 **Resource:** Vegetation

Biodiversity Conservation Alliance

Comment:

The DEIS fails to ensure scientific accuracy and integrity of analysis, in violation of NEPA, for several reasons.

First, as discussed above, the DEIS (p. iv) makes the hyperbolic statement that beetles are causing "stand replacement on a landscape scale". No scientific sources or hard data are offered to support this claim that "stand replacement" mortality is occurring "on a landscape scale" across the forest. Certainly there are small areas of relatively higher mortality, and some discrete patches of "stand-replacement" mortality, but the statement is a major exaggeration. Moreover, the DEIS (p. 112) discusses the acres on which some beetle mortality has occurred in recent years, but acknowledges that this mortality is often as low as one snag per acre; and the DEIS does not provide any data on the current average mortality per acre across the proposed logging units, or unit-by-unit.

Agency Response:

Comment noted.

See Agency Response to Letter 33, Comment 9.

The DEIS references several pieces of scientific literature supporting the idea that active forest management will reduce pine beetle risk and fire hazard. Schmid and Mata (2005) conducted research plots in the Black Hills National Forest and their results showed that 77% of pine trees in an uncut control block (basal area greater than 110 square feet of basal area) became infested while only 9% of the trees in a block thinned to 60-70 basal area were infested over a 17 year period. They recommended stands should be managed on a landscape basis to increase the effectiveness of partial cutting. In their review examining 498 scientific publications, Fettig et al. (2007) concluded "Factors involving tree density are consistently associated with the occurrence and severity of bark beetle infestations. Management to reduce stand or landscape-level susceptibility to bark beetles must address factors related to tree density. Accordingly, thinning has long been advocated as a preventative measure to reduce the amount of bark beetle-caused tree mortality and its effectiveness for this purpose is supported by the scientific literature."

All known responsible science conducted in ponderosa pine supports the value of thinning in reducing subsequent mortality from MPB (Fettig et al. 2007). Research specific to the Black Hills concludes that silvicultural treatment to reduce tree density is successful in reducing mortality from mountain pine beetle infestations.

The Black Hills National Forest included this science in the recent Phase II Forest Plan amendment (Allen and Cook, 2008).

To be effective in reducing MPB mortality, thinning, in addition to sanitation, is necessary in overstocked stands of relatively large diameter trees (McCambridge et al. 1982). McCambridge and Stevens (1982) reported evidence that thinning can reduce MPB-caused mortality, and was consistent with subjective observations that thinning dense, second-growth ponderosa pine is effective in preventing unacceptable levels of beetle caused mortality in the Black Hills.

Both prescribed fire and mechanical techniques can be used to change the forest structure and encourage the regeneration and development of ponderosa pine, especially as an early seral species, within interspersed mosaics. If the structure were changed, such forests may be resistant and resilient to native insects and diseases, uncharacteristically severe wildfires, and be beneficial to

many wildlife species (Graham and Jain 2005).

Pollett and Omi (2002) found that, in ponderosa pine stands, treatments that reduce density and change the composition of stands will reduce probability of crown fires, decrease the severity of impacts, and enhance fire suppression effectiveness and safety. Graham et al (2004) found that thinning followed by prescribed burning was particularly effective in reducing the risk of high intensity fire in ponderosa pine. The commenter does not provide citations for scientific research refuting these findings.

Letter No: 33 **Comment No:** 34 **Resource:** Vegetation

Biodiversity Conservation Alliance

Comment:

The DEIS fails to ensure scientific accuracy and integrity of analysis, in violation of NEPA, for several reasons.

Second, the DEIS (pp. 35-36) states that, with regard to pine beetles, “[i]nfested trees” would be removed, but does not divulge the methodology that would be used to identify “infested trees” for removal, or divulge or provide the hard data upon which the methodology is based.

Agency Response:

See Agency Response to Letter 8, Comment 5 and Letter 28, Comment 2.

Letter No: 33 **Comment No:** 35 **Resource:** Fire/Fuels

Biodiversity Conservation Alliance

Comment:

The DEIS fails to ensure scientific accuracy and integrity of analysis, in violation of NEPA, for several reasons.

Third, the DEIS (p. 26) states that “there is a need to manage hazardous fuel loading associated with the MPD epidemic and conduct sanitation/salvage operations to minimize the potential for large high intensity/high severity wildfires.” The DEIS (p. 136) makes similar assumptions in the Fire/Fuels section. However, the DEIS provides no citation to any scientific source to support its assumption that snags from pine beetles increase the potential for high intensity/high severity fire. Moreover, the DEIS does not acknowledge that the published, peer-reviewed research concludes that increased beetle mortality does not increase fire severity (Bond et al. 2009) and, in fact, tends to decrease fire severity due to reduced foliar fuel (Simard et al. 2011).

Agency Response:

Embers falling into the crowns of beetle attacked and killed trees or the needle litter below these trees, have a high probability of independent ignition with no additional heat source. Transition in these stands from surface to active crown fire can be extremely rapid with little change of weather and atmospheric conditions (Hoyt and Jolly, 2012).

Letter No: 33 **Comment No:** 36 **Resource:** Fire/Fuels

Biodiversity Conservation Alliance

Comment:

The DEIS fails to ensure scientific accuracy and integrity of analysis, in violation of NEPA, for several reasons.

Fourth, the DEIS (pp. 130-131) classifies forests within the project area according to Condition Class, based upon departure from historic fire frequencies. However, the science consistently shows that the assumptions upon which the condition class system is based are incorrect and, in fact, the areas with the highest condition class (highest departure from historic fire frequencies) burn mostly at low and moderate severity and burn at lower severities with increasing time since fire, due to increased canopy cover with time since fire and, as a result of this higher canopy cover, increased fuel moisture longer into the fire season, more cooling shade, and reduced pyrogenic understory vegetation (Odion et al. 2004, Odion and Hanson 2006, Odion and Hanson 2008, Odion et al. 2010).

Agency Response:

"Fire regime" refers to the nature of fire occurring over long periods and the prominent immediate effects of fire that generally characterize an ecosystem. Descriptions of fire regimes are general because of the enormous variability of fire over time and space. The fire regime concept brings a degree of order to a complicated body of fire behavior and fire ecology knowledge. It provides a simplifying means of communicating about the role of fire (Brown and Smith, 2000), (Forest Encyclopedia Network, 2008). (Fire and Fuels Specialist Report, Colorado Rule Making EIS, 2011).

The Mountain Pine Beetle Response Project is consistent with the Forest Plan as Amended (See FP FEIS Chapter 1, page 5).

MPB Response EIS Public Comment and Agency Response Report

Letter No: 33 **Comment No:** 37 **Resource:** Wildlife

Biodiversity Conservation Alliance

Comment:

The DEIS fails to ensure scientific accuracy and integrity of analysis, in violation of NEPA, for several reasons.

Fifth, the DEIS (pp. 158-159) claims that Black-backed Woodpecker populations have reached their highest density as of about 2000, and “spiked upward” in 2009, implying that the birds are very abundant and that there is no real concern about further reducing/preventing suitable habitat. However, the DEIS cites only to an unpublished U.S. Forest Service report, “White et al. 2010”, to support the implication that recent/current populations are high and increasing, and the web address given for this document in the References section of the DEIS is inactive and does not provide the document. We obtained this document through the website of a nongovernmental organization, and the data presented in White et al. (2009), at Appendix B, p. 52, does not show anywhere near peak densities in 2009—higher densities were found in 2002-2004 (much higher in 2002), and no data on current Black-backed Woodpecker density or trends are provided. The DEIS does admit (p. 186) that suitable habitat for this species is likely to decline as increased thinning/salvage/sanitation projects are implemented and as snags fall. However, again, the DEIS does not provide adequate scientific support for its implication that populations are currently robust.

Agency Response:

White et al. (2009) is a report of the Forest-wide bird monitoring conducted for the Forest by the Rocky Mountain Bird Observatory. This is the monitoring data collected for our most recent Forest Monitoring and Evaluation Report (2009). Appendix B of White et al. (2009) shows only number of detections. The correct metric for determining trends for birds is relative density (birds/square kilometer). For black-backs, this is shown on page 14 of White et al. (2009). The highest relative density was in 2009 (6.8 birds/sq. km), which is slightly higher than that found in 2002 (6.2 birds/sq. km) soon after the area burned. This is the best available information on black-backed woodpecker population trends on the Black Hills.

Letter No: 33 **Comment No:** 38 **Resource:** Vegetation

Biodiversity Conservation Alliance

Comment:

The DEIS fails to ensure scientific accuracy and integrity of analysis, in violation of NEPA, for several reasons.

Sixth, the DEIS (pp. 158-159, 185-186) references Forest Plan standards pertaining to the maintenance of at least 3 snags per acre, stating that this standard will continue to be met, even after implementation of the Proposed Action, and implying that meeting this standard equates to ensuring the viability of Black-backed Woodpecker populations. However, as discussed above, nowhere does the DEIS provide actual hard data showing what current snag densities are in the project area, and nowhere does the DEIS cite to a single scientific study concluding that 3 snags per acre equates to suitable Black-backed Woodpecker habitat, or is sufficient to maintain viable populations of Black-backed Woodpeckers. Indeed, as discussed in detail above in the “Inadequate Range of Alternatives” section, the current science is clear that Black-backed Woodpeckers depend upon far, far higher snag densities than this.

Agency Response:

The best available information on Forest-wide snag densities is the latest Forest Monitoring and Evaluation Report (USDA Forest Service 2010). This document is referenced on page 156 of the DEIS and is retained in the FEIS. The removal of snags is not expected to reduce snag densities below Forest Plan Objective 211 (DEIS page 182). The Phase II Amendment FEIS determined that black-backs are likely to persist on the Forest if Forest Plan Standards and Guidelines are followed and if management moved conditions towards structural stage objectives (Phase II FEIS, Appendix C, page 205). The MPBR Project is consistent with snag and downed wood standards. Treatments are not expected to reduce mature pine below structural stage objectives and snags are expected to be abundant over the next 5 to 7 years (DEIS page 186). The Phase II FEIS (Appendix C, page 201) points out that snag densities should be met on larger areas such as watersheds, and not on every acre. The highest density of snags is mostly likely to occur in stand replacing fires and insect outbreaks (Phase II FEIS, Appendix C page 201).

MPB Response EIS Public Comment and Agency Response Report

Letter No: 33 **Comment No:** 39 **Resource:** Vegetation

Biodiversity Conservation Alliance

Comment:

Lack of Rational Connection Between Stated Goals and Presented Facts

For the reasons discussed above, according to the Forest Service's own data, it appears that the project would likely cause far higher tree mortality, through logging, than would result from beetles, and the DEIS does not divulge this or explain how increasing tree mortality relative to what would likely occur even if no action was taken advances the project's stated purpose and need.

Agency Response:

Comments noted.

Effects on structural stages for each Alternative is addressed in DEIS pages 115-129.

Letter No: 33 **Comment No:** 40 **Resource:** Fire/Fuels

Biodiversity Conservation Alliance

Comment:

Finally, we encourage to the Black Hills FS to consider the ongoing (at this writing) High Park wildfire in Colorado. This wildfire started with a lightning strike on private land where mostly healthy trees occupied at least the first 14,000 acres of the burn area. To date the fire has spread to a size of over 83,000 acres and into stands of beetle-killed trees. As in areas of green trees, the spread and rate of spread in the beetle-killed areas has been determined primarily by high temperatures, dry conditions, humidity levels, and wind speeds. These weather and environmental conditions, not the degree of beetle-kill, have been the primary drivers of this second largest fire in Colorado history. The High Park fire has spread across stands of naturally low density trees, both green, dead and dying as well as shrubby and grassy landscapes.

The probability of fire visiting any given "treated" area as proposed in this project is extremely low.

Agency Response:

When energy release components are above the 95th percentile, live fuel moistures are setting record low 's, dead fuel moistures are extremely low, temperatures are 100 degrees and winds are gusting to 50 mph, as during the High Park Fire, it won't matter if trees are live or dead, all vegetation will be available to burn. During this fire there was not much change in fire behavior in beetle killed vs live green trees due to the fact that weather conditions were the primary driver of fire spread. However during typical weather conditions fuel moistures are the primary factors in fire behavior, how fast a fire will spread, flame lengths produced, and the intensity with which it burns. According to recent studies canopy fuel moisture can decrease by 1/3 in the red and grey stages of trees attacked by mountain pine beetles. This decrease in moisture can make active crown fires possible with lower windspeeds (Schoennagel, Veblen, Negron, Smith, 2012). As the needles from the dead trees fall to the ground it increases the fine fuel loading which contributes to surface fire spread. When the dead trees fall to the ground, the build-up of additional coarse woody debris can lead to a corresponding increase in fire intensity and resistance to control.

In the last 12 years there have been fires in areas where timber or fuels treatment has occurred. Looking at the fire history records for the forest there are more areas that have had than haven't had at least a small fire during the period of 1970 -2012. There is a chance fire may not impact any of the treated areas, but based on historical data there is a greater probability that fire will occur in some of them.

See Agency Response to Letter 27, Comment 1 regarding risk and hazard.

Letter No: 34 **Comment No:** 1 **Resource:** Plan

Spearfish Canyon
Owners Association

Comment:

The Spearfish Canyon Owners Association (SCOA) is pleased to provide the following comments to the D.E.I.S. SCOA was founded as an integral part of the historic land exchange between Homestake and the USFS in 1992. Our over 200 members have property along the Spearfish Canyon Scenic Byway and the balance of Management Area 4.2A. The purpose of SCOA is to maintain the beauty, serenity and attractiveness of Spearfish Canyon, to monitor and protect the water quality and flow of Spearfish Creek and to preserve in perpetuity the covenants and conditions placed upon said property by Homestake Mining Company. The infestation of the MPB in the BHNH and Spearfish Canyon is a major concern for all of our members and we applaud the work that you and your staff have expended in this project.

Agency Response:

Comment noted.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 34 **Comment No:** 2 **Resource:** Vegetation

Spearfish Canyon
Owners Association

Comment:

SCOA highly supports Alternative C of the D.E.I.S. with the following comments:

- The treatment area of Alternative C must include the area from Hanna to Cheyenne Crossing. Hanna is an epidemic site, is at the southern end of the Scenic Byway and the area where the MPB begins its northern movement into Spearfish Canyon. Inclusion of this area in your project is vital as part of the attack on the MPB.
- The project must include a flexible approach to identify and treat MPB infested areas. Flights of the MPB cannot be predicted and the project must be able to adapt to seasonal changes of infected areas.
- Prioritizing treatment areas to maximize treatment in high risk areas is recommended.
- The project must also include flexibility to allow all methods of treatment. This includes current practices as well as other approaches such as baiting, girdling and any other demonstrated treatments that can help to attack the MPB.
- Temporary access to USFS land from private property is highly recommended. SCOA approved blanket access across all SCOA properties in the fall of 2011. This access document was forwarded to the USFS Spearfish office.
- Alternative C should be implemented this fall without any delay. Failure to attack immediately allows the

Agency Response:

See Agency Response to Letter 6, Comment 2 and Letter 15, Comment 2.

Letter No: 34 **Comment No:** 3 **Resource:** Plan

Spearfish Canyon
Owners Association

Comment:

SCOA completely endorses the comments from the Lawrence County Commissioners to the MPB Response Project D.E.I.S. Their response to the D.E.I.S. is very detailed, highlights the historic concerns that we all have had to the infestation of the MPB and provides recommendations that will enhance the D.E.I.S.

SCOA will continue to support all USFS efforts to contain and control the dangerous infestation of the MPB in the BHNF. Our focus is naturally on Spearfish Canyon but we will continue to support projects in all of our forests.

On behalf of all 200 plus members of SCOA we thank you for your work and look forward to continued support as we attack the MPB.

Agency Response:

Comment noted.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 35 **Comment No:** 1 **Resource:** Plan

National Forest Advisory Board

Comment:

It is moved that the Black Hills National Forest Advisory Board recommend to BHNF Forest Supervisor (the Deciding Officer) make the following determination:

1. The proposed activities and alternatives address the issues, respond to national policy, guidance and law and Forest Plan direction, and meet the purpose of and need for action in the MPBR Project DEIS.
2. The information in the analysis is sufficient to implement proposed activities.
3. Alternative C of the Mountain Pine Beetle Response Project be adopted as the Preferred Alternative in the Final Environmental Impact Statement for the Project.

The subcommittee believes that Alternative C maximizes the effectiveness of actions to respond to the Mountain Pine Beetle (MPB) epidemic in the Black Hills National Forest (BHNF) by reducing the devastating effects of the MPB on forest health and reducing the possibility or consequences of large-scale fires in the 248,000 acres of high-risk acres in the Wildland Urban Interface proposed for treatment under Alternative C.

The subcommittee also believes that Alternative C represents the greatest opportunity for collaboration by the BHNF, the States of South Dakota and Wyoming, the local governments throughout the BHNF, and the people of the Black Hills region. The subcommittee recognizes and notes that Alternative C was developed in response to public comments received during the scoping process and comment period.

The subcommittee recognizes the urgency and need for immediate response in this epidemic. As such we challenge the BHNF in signing the Record of Decision as soon as possible, with an implementation deadline no later than 10/1/2012.

Agency Response:

Comment noted.

See Agency Response to Letter 8, Comment 5 and Letter 35, Comments 2 and 3.

Letter No: 35 **Comment No:** 2 **Resource:** Trans/Travel

National Forest Advisory Board

Comment:

It is moved that the Black Hills National Forest Advisory Board recommend to BHNF Forest Supervisor (the Deciding Officer) make the following determination:

The subcommittee believes that Alternative C is the preferred alternative and could be improved by clarification of the decision process and rationale for determining the choice of temporary or System roads, by providing information how frameworks that guide road building operate under adaptive management and by lowering the upper range of total potential new road construction.

Agency Response:

The decision to build a temporary versus a specified road (system road) includes an analysis of the transportation system needed to accomplish long term management objectives. Analysis includes resource needs, location and construction requirements, long term maintenance responsibilities, and obliteration needs, as well as continued reliance on Forest Road Program funding.

The decision framework to guide road building under adaptive management would include applying screens to the total number of new road miles identified for Alternative C. The screens may include the Wildland Urban Interface (WUI), the Forest Bark Beetle Strategy, and Suitable base. These screens may provide a stratification of roads by identifying roads that have a varying level of probability of being constructed.

See Agency Response to Letter 8, Comment 5.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 35 **Comment No:** 3 **Resource:** Plan

National Forest Advisory Board

Comment:

It is moved that the Black Hills National Forest Advisory Board recommend to BHNH Forest Supervisor (the Deciding Officer) make the following determination:

The subcommittee believes that the Final Environmental Impact Statement could be improved with a focused explanation on how monitoring will provide feedback and evaluation of design features, treatments, and effectiveness. The DEIS provides a figure on the adaptive management cycle and a description of monitoring that provides for an annual report. Given the emphasis on urgency and flexibility, it would be helpful to have a more frequent feedback interval to assess the effectiveness of treatments. The subcommittee urges the NF AB to recommend a brief, mid-year interim report that would assess how well the project has been able to respond to MPB activity, populations, volume and distribution in the project area.

Agency Response:

See Agency Response to Letter 8, Comment 5.

Letter No: 35 **Comment No:** 4 **Resource:** Wildlife

National Forest Advisory Board

Comment:

It is moved that the Black Hills National Forest Advisory Board recommend to BHNH Forest Supervisor (the Deciding Officer) make the following determination:

4. There is a need for a one-time, site-specific amendment to existing Forest Plan direction to address the public's concerns about Spearfish Canyon.

Agency Response:

Alternative C includes a site-specific Forest Plan amendment for snails in Spearfish Canyon (DEIS page 38). This remains in the FEIS.

Letter No: 36 **Comment No:** 1 **Resource:** Plan

Meade County Board of
County Commissioners

Comment:

We suggest the forest service continue using cooperative agreements with county governments to treat infested trees that cannot be treated through commercial harvest.

Agency Response:

See Agency Response to Letter 15 Comment 4.

Letter No: 36 **Comment No:** 2 **Resource:** Vegetation

Meade County Board of
County Commissioners

Comment:

We suggest a two-phase treatment plan for infested trees that are not removed through commercial harvest and which cannot be treated with the cut-and-chunk method by November 1 of any give year. In phase one, infested trees would be severed from the stump, with no chunking or severing of limbs, which would provide the quickest drying of the tree and therefore, the highest beetle mortality. In phase two, the severed tree would undergo traditional slash disposal.

Agency Response:

Cut and chunk will continue to be monitored for effectiveness.

See Agency Response to Letter 33 Comments 15 and 16.

MPB Response EIS Public Comment and Agency Response Report

Letter No: 36 **Comment No:** 3 **Resource:** Vegetation

Meade County Board of
County Commissioners

Comment:

We suggest the forest service allow private individuals to commercially harvest small groups of infested trees that are not scheduled for removal through the forest service's timber sale program, with no bid or payment process, except for reasonable slash disposal, road damage, road use, and resource damage bonds and fees.

Agency Response:

See Agency Response to Letter 15 Comment 3.

Letter No: 36 **Comment No:** 4 **Resource:** Plan

Meade County Board of
County Commissioners

Comment:

We appreciate the forest service's increased effort and flexibility in response to the mountain pine beetle. The current infestation is so much larger than those of the past that we risk unusually long-term damage to all the things we value in our nation forest: harvestable timber, wildlife habitat, recreation, grazing, and clean water. We also risk loss of local logging and sawmilling capacity with the looming loss of so much of our timber base.

Agency Response:

Comment noted.

Letter No: 37 **Comment No:** 1 **Resource:** Cultural

Wyoming State Historic
Preservation Office

Comment:

I've reviewed the MPBRP DEIS and will not be submitting any comments.

Agency Response:

Comment noted.

Mountain Pine Beetle Response Project Draft Environmental Impact Statement Distribution List

<u>Name</u>	<u>City</u>	<u>State</u>
Donavon Nicholas	Spearfish	South Dakota
Fort Meade VA Medical Center Engineering Department	Fort Meade	South Dakota
The Honorable Craig Tieszen	Rapid City	South Dakota
Harry Ayer	Nemo	South Dakota
Spearfish Canyon Society	Spearfish	South Dakota
Crook County Land Use Planning & Zoning Commission	Sundance	Wyoming
John Lehnert	Belle Plaine	Minnesota
Jeremy Dedic	Newcastle	Wyoming
Desiree Goodson	Spearfish	South Dakota
Wonderland Cave	Nemo	South Dakota
Karl Jensen	Whitewood	South Dakota
Weston County Weed & Pest Control	Newcastle	Wyoming
Weston County Commissioners	Newcastle	Wyoming
Iza Uram		
Dan Ibeling		
Mary Rice	Bloomington	Indiana
Kristi Hanson	Brookport	Illinois
Karyn Zaremba	Fayetteville	Arkansas
Mike Englert	Washington	District of Columbia
Druse Kellogg	Spearfish	South Dakota
Carey Lea	Spencer	West Virginia
Weston County Commission	Newcastle	Wyoming
Jeffery Watt	Granview	Ohio
Billy Stern	Santa Fe	New Mexico
Mary Hood	Plain City	Ohio

<u>Name</u>	<u>City</u>	<u>State</u>
Tim Wilson	Columus	Indiana
Tony Jones	Carbondale	Illinois
Dave Stewart	Bloomington	Indiana
Lauryn Slotnick	Douglaston	New York
Linda Lee	Paoli	Indiana
Gwen Marshall	Cincinnati	Ohio
Joel Fischer	Frankfort	Kentucky
Susan Fay	Indianapolis	Indiana
Campbell Laird	Stockbridge	Michigan
Kelly Riley	Hatfield	Pennsylvania
Charles Philips	Boonville	Missouri
John Doyal	Chattanooga	Tennessee
Paul Schneller	Bloomington	Indiana
Christina Wulf	Staunton	Virginia
Rich and Marsha Scherubel	Gladstone	Missouri
Karolyn Redoutey	Minneapolis	Minnesota
Mayor of Custer City	Custer	South Dakota
Black Hills RC&D	Rapid City	South Dakota
John W.Parana Bureau of Land Management Outdoor Recreation Planner	Johnsonburg	Pennsylvania
Ryan Little	Pittsburgh	Pennsylvania
Noel Larock	Southwick	MA
Carol Westerman-Jones	Carbondale	Illinois
Corina Lang	Cobden	Illinois
Kaleb Winters	Olean	New York
Dave Maudlin	Hill City	South Dakota
Jim Scherrer	Hill City	South Dakota
Hank Fridell	Custer	South Dakota

<u>Name</u>	<u>City</u>	<u>State</u>
Mills Family Partnership, LLD	Hill City	South Dakota
Ron and Bev Blessing	Rapid City	South Dakota
Bureau of Land Management Planner/Environmental Coordinator		South Dakota
Mark M. Giese	Racine	Wisconsin
Dinda Evans	San Diego	California
Ron and Karen Bitterman	Hill City	South Dakota
Friends of the Norbeck	Rapid City	South Dakota
Jean Katus	Rapid City	South Dakota
Beth Burkhart	Custer	South Dakota
Terri Greene	Bloomington	Indiana
Billy Stern	Santa Fe	New Mexico
Kelly Riley	Hatfield	Pennsylvania
Paul Ash	Ferdinand	Indiana
N. Spence	Overland Park	Kansas
D.S. Powell	Clairmont	California
J. Ammon	Albany	Ohio
Thomas D. Frank	Hill City	South Dakota
Celia Bradley	Hill City	South Dakota
Bonnie Carr	Spearfish	South Dakota
Norm Edwards	Spearfish	South Dakota
Bill Pearson	Deadwood	South Dakota
Paul Schipke	Deadwood	South Dakota
Jayna Watson	Spearfish	South Dakota
John Hauge	Deadwood	South Dakota
Dan Contonis	Spearfish	South Dakota
Global Leadership Interlink	Spearfish	South Dakota
Sharon Henry	Spearfish	South Dakota

<u>Name</u>	<u>City</u>	<u>State</u>
Laura Scholten	Spearfish	South Dakota
Doug Lindgren	Nemo	South Dakota
Lucille Bertuccio	Bloomington	Indiana
Bob Brister	Salt Lake City	Utah
Rapid City Fire Department	Rapid City	South Dakota
Bob Black	Rapid City	South Dakota
NRCS, Rapid City Service Center	Rapid City	South Dakota
Jerry and Elizabeth Strong	Upton	Wyoming
Wyoming Department of Agriculture, Director	Cheyenne	Wyoming
Patrick Brondos	Rapid City	South Dakota
Wyoming Game & Fish Department Deputy Director	Cheyenne	Wyoming
Jack and Barb Wanstedt	Lead	South Dakota
Peggy LaPoint	Denton	Texas
Wyoming State Forestry Division	Cheyenne	Wyoming
Randall McGruder	Lead	South Dakota
Norbeck Society, Inc.	Rapid City	South Dakota
Brian Sebade		
Crook County Advisory Board		Wyoming
South Dakota Wild Grassland Coalition	Custer	South Dakota
Gregory and Patricia Dias	Spearfish	South Dakota
Dan Buehler	Hill City	South Dakota
Jon Pochop	Spearfish	South Dakota
Bill McFarling	Spearfish	South Dakota
Crook County Board of Commissioners	Sundance	Wyoming
Steve Mott	Sundance	Wyoming

<u>Name</u>	<u>City</u>	<u>State</u>
Chena Mesling	Portland	Oregon
Weston County Natural Resources District	Newcastle	Wyoming
SD Depts. Of Agriculture and Game, Fish & Parks	Pierre	South Dakota
Cleon E. Diers	Keystone	South Dakota
Doug Hoff	Spearfish	South Dakota
John E. Batt	Spearfish	South Dakota
Roger Garrett	Spearfish	South Dakota
Fred W. Romkema	Spearfish	South Dakota
Spearfish Canyon Owners Association	Lead	South Dakota
P. Rene Larson	Lead	South Dakota
Molly O'Meara	Custer	South Dakota
Bill Loffer	Spearfish	South Dakota
Spearfish Forest Products	Spearfish	South Dakota
Tanner Millard	Lead	South Dakota
Mary Zimmerman	Deadwood	South Dakota
Bill Coburn	Spearfish	South Dakota
Environmental Protection Agency, Region 8	Denver	Colorado
Gene Norman	Newcastle	Wyoming
Neiman Timber Company	Hill City	South Dakota
Biodiversity Conservation Alliance	Laramie	Wyoming
Crook County Natural Resource District	Sundance	Wyoming
Black Hills Forest Resource Association	Rapid City	South Dakota
Spearfish Area Chamber of Commerce	Spearfish	South Dakota
Dave Brenneisen	Spearfish	South Dakota
Prairie Hills Audubon Society	Black Hawk	South Dakota
Eric Jennings	Spearfish	South Dakota
The "Save Our Black Hills" Coalition	Gillette	Wyoming

<u>Name</u>	<u>City</u>	<u>State</u>
Raymond and Barbara Running	Spearfish	South Dakota
James Hughes	Custer	South Dakota
Druse Kellogg	Spearfish	South Dakota
Larry Kellogg	Spearfish	South Dakota
Lydia Garvey	Clinton	Oklahoma
Suzette Moline	Sundance	Wyoming
Dick Artley		
John Muir Project, Director	Cedar Ridge	
Jean, Public		
Ralph Kopp	Rapid City	South Dakota
City of Deadwood Mayor	Deadwood	South Dakota
US Department of Interior, Office of the Secretary and Compliance Office of Environmental Policy	Denver	Colorado
Frank Carroll	Custer	South Dakota
Crook County Farm Bureau Federation	Sundance	Wyoming
Everett Hoyt	Rapid City	South Dakota
Mark Stiller	Belle Fourche	South Dakota
City of Spearfish Mayor	Spearfish	South Dakota
Senator Tom Nelson, District 31 - Lawrence County	Pierre	South Dakota
City of Lead Mayor	Lead	South Dakota
US Department of the Interior Bureau of Reclamation	Billings	Montana
Black Hills Regional Multiple Use Coalition	Rapid City	South Dakota
Federal Forest Resource Coalition		Washington
James Nelson	Spearfish	South Dakota
Leonard Seeley	Osage	Wyoming
Jerry Shepperson	Upton	South Dakota

<u>Name</u>	<u>City</u>	<u>State</u>
Tom Bruce	Newcastle	Wyoming
P. Henry	Spearfish	South Dakota
Darcie Henegar	Gillette	Wyoming
Wyoming Game and Fish Department	Cheyenne	Wyoming
Bob Geis	Rapid City	South Dakota
SD Department of Agriculture Division of Resource Conservation and Forestry	Pierre	South Dakota
National Forest Advisory Board	Rapid City	South Dakota
Meade County Board of County Commissioners Alan Aker, Chairman	Sturgis	South Dakota
Wyoming State Historic Preservation Office	Cheyenne	Wyoming
Pennington County Weed & Pest	Rapid City	South Dakota
Dan Aaker	Spearfish	South Dakota
Sturgis Area Chamber of Commerce	Sturgis	South Dakota
Glen Hoff	Spearfish	South Dakota
Al Johnson	Hill City	South Dakota
Wyoming State Forestry Division	Newcastle	Wyoming
T.J. and Anne T. French	Hill City	South Dakota
Wayne & Joanne Jeffery	Spearfish	South Dakota
Michael S. Sonja Tyrrell	Canton	South Dakota
Eric Jennings	Spearfish	South Dakota
Patsy Grossenburg	Hill City	South Dakota
Rapid City Chamber of Commerce	Rapid City	South Dakota
Rapid City Fire Department	Rapid City	South Dakota
Black Hills Land Analysis	Deadwood	South Dakota
Prudential Kahler Realtors	Spearfish	South Dakota
Raymond F. Rossi	Lead	South Dakota
Crago Family Trust	Spearfish	South Dakota

<u>Name</u>	<u>City</u>	<u>State</u>
Cal & Mary Hayenga	Spearfish	South Dakota
US Department of the Interior National Park Service	Omaha	Nebraska
Colorado State University, Libraries - Documents Processor	Fort Collins	Colorado
Rapid City Morning Optimist Club	Rapid City	South Dakota
Mark Nicolai	Sioux Falls	South Dakota
Alianne Sandau	Spearfish	South Dakota
William & Barbara Heying	Spearfish	South Dakota

Congressional:

Senator Tim Johnson
 Senator John Thune
 Congresswoman Kristi Noem

Native American Tribes:

Tribal Chairman	Yankton Sioux Tribe
Tribal Chairman	Crow Creek Sioux Tribe
Tribal Historic Preservation Officer President	Northern Cheyenne Tribe
Tribal Chairman	Rosebud Sioux Tribe
Cultural Preservation Office	Sisseton-Wahpeton Sioux Tribe
Tribal Chairman	Three Affiliated Tribes
Tribal Chairman	Flandreau Santee Sioux Tribe
Tribal Chairman	Cheyenne River Sioux Tribe
Tribal Chairman	Mandan Hidatsa & Arikara Tribes
Tribal Chairman	Eastern Shoshone Tribe
Tribal Historic Preservation Officer	Oglala Sioux Tribe
Tribal Chairman	Northern Arapaho Business Council
Tribal Chairman	Lower Brule Sioux Tribe
Cultural Resource Office	Lower Brule Sioux Tribe
Tribal Historic Preservation Officer	Cheyenne River Sioux Tribe
Tribal Historic Preservation Officer	Standing Rock Sioux Tribe
Tribal Chairman	Spirit Lake Sioux Tribe
	Standing Rock Sioux Tribe
	Grey Eagle Society
President	Northern Cheyenne Tribe
President	Oglala Sioux Tribe
Tribal Chairman	Cheyenne/Arapaho Tribes Of Oklahoma
Tribal Chairman	Santee Sioux Nation
	Kiowa Ethnographic Endeavor For Preservation
Tribal Chairwoman	Spirit Lake Sioux Tribe

Cultural & Heritage Program
Rosebud Sioux Tribe
Tribal Planner/Director
Tribal Historic Preservation Officer
Tribal Historic Preservation Officer

Cheyenne-Arapaho Tribes Of Oklahoma
Sicangu Lakota Treaty Council Office
Northern Cheyenne Tribe
Rosebud Sioux Tribe
Northern Arapaho Tribe

Federal, State, Local and County Agencies:

Environmental Protection Agency, Region VIII EIS Review Coordinator
South Dakota Department of Game, Fish, and Parks
Bureau of Land Management – South Dakota Field Office
South Dakota State Historic Preservation Center
South Dakota Department of Environment and Natural Resources
South Dakota Department of Transportation
Governor Office – Governor Mike Rounds
Pennington County Commissioners
Rapid City Public Library
South Dakota Division of Forestry
Pennington County Highway Department
Planning and Review Advisory Council on Historic Preservation
USDA APHIS PPD/EAD
USDA Natural Resources Conservation Service
USDA National Agricultural Library Head, Acquisitions and Serials Branch
NOAA Office of Policy and Strategic Planning
US Army Engr. Northwestern Division
USDI Office of Environmental Policy and Compliance
FAA Great Lakes Region
Federal Highway Administration
US Dept. of Energy, Office of NEPA Policy and Compliance

General Public and Groups not listed above:

A mailing list of property/land owners was generated for the project area by obtaining names and addresses from property tax roles in the seven counties. The databases were queried for land/property owners within or near the project area.

Also, other groups or individuals who are known to have or may have interest in management of the National Forest (and specifically this project area) were included on a mailing list and contacted with a scoping letter. The mailing list is held in the MPBR Project File.

Some key interest groups consulted with and/or involved in the planning process were the South Dakota Department of Agriculture - Division of Resource Conservation and Forestry and Division of Wildlife Fire Suppression, Conservation Leaders, Chamber of Commerce for Rapid City and County Supervisors for Pennington and Lawrence Counties, Rapid City Optimist Club and the National Forest Advisory Board. A concerted effort was made to engage in consultation regarding the project with Tribal contacts known to have interest in management of the National Forest. Tribal authorities have been invited to participate in the development of a programmatic agreement for this project.