

**APPENDIX D**  
**Insect and Disease Determination Letters**



## APPENDIX D – Insect and Disease Determination Letters



Forest  
Service

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Supervisor's Office

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File Code: 1950

Date: August 11, 2011

Subject: Determination of an Insect Epidemic in the MPB Response Project

To: Dennis Jaeger, Deputy Forest Supervisor

The mountain pine beetle (*Dendroctonus ponderosae*) is the number one insect killer of pines throughout the west. It is a native species and attacks ponderosa pine in the Black Hills. The last 10 years have seen significant tree mortality caused by the mountain pine beetle throughout the Black Hills. We are at a time when large groups of trees are being killed across all areas of the forest on a yearly basis. Much of the mortality is occurring where epidemics are spreading to surrounding areas, but there are new, larger pockets showing up in areas that have not had significant mortality to date.

Ground observations and aerial survey detection over the past year indicate new and rapidly growing beetle pockets in areas that had largely been beetle free. Information presented in Mountain Pine Beetle Conditions Across the Black Hills NF, prepared by Kurt Allen, Entomologist, Rapid City Service Center, specifically addressed the MPB Response Project. Data presented in this report concludes that the project area is experiencing widespread beetle mortality and brood sampling suggests that mortality will continue to increase.

Although we have had a beetle epidemic occurring for 10 or more years, in 2010 the acreage affected by the beetle doubled over 2009, based on aerial survey. There were about 12,000 acres affected in 2010 that had not been mapped as having any beetle mortality over the previous 14 years. Both of these trends indicate that there is still an increasing and spreading beetle epidemic occurring across the forest.

There are some areas that have little or no beetle activity at this time and others with very high beetle mortality. The numbers indicate that tree mortality is increasing. During outbreaks, periods of higher than normal beetle activity, stand mortality can easily reach 50% and often go higher. During this outbreak of mountain pine beetle we have seen stands sustain better than 80% tree mortality. Most of the mortality is in trees that are greater than 7 inches in diameter, with lesser amounts in small trees. Mortality is usually concentrated in stands where tree density is highest, typically over 120 square feet per acre of basal area. However, once beetle populations have built to epidemic levels, any stands containing pine can have mortality.

The only effective long-term strategy to minimize beetle caused mortality is controlling stand conditions through silvicultural means over large landscapes and monitoring areas of beetle buildup (USDA Forest Service, Forest Health Evaluation RCSC-03-11, February 2011).

Given the information referenced above, I conclude that there is a mountain pine beetle epidemic in the MPB Response Project area that meets Section 102(a)(4) of HFRA. I believe that the continued spread of this epidemic includes: Increased tree mortality across the landscape; further accumulation of hazardous fuels and increased potential for severe large-scale wildfires threatening the values of the wildland urban interface within and beyond; major changes in the scenery; and alteration of wildlife habitat.

Therefore, I support using the authority provided in the Healthy Forests Restoration Act to address this epidemic in the Mountain Pine Beetle Response Project.

*/s/ Craig Bobzien*  
CRAIG BOBZIEN  
Forest Supervisor



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**File Code:** 1950

**Date:** August 2, 2011

**Subject:** Authorized Hazardous Fuel Reduction Projects per HFRA

**To:** Mountain Pine Beetle Response Project ID Team

The following describes the conditions related to the Mountain Pine Beetle (MPB) Response Project which is proposed to implement qualified "Authorized Hazardous Fuel Reduction Projects" pursuant to the Healthy Forests Restoration Act of 2003, Title I. The Healthy Forests Initiative and Healthy Forests Restoration Act *Interim Field Guide* provides a *Decision Diagram* key to help evaluate proposals such as the MPB Response Project to determine whether a project can qualify under HFRA authority.

The verbal 'walk-through' (below) of the decision diagram in the *Interim Field Guide*, may be easier to work through by following along with the flow diagram steps displayed in that document (see Interim Field Guide reference and decision diagram attachment). The MPB Response project qualifies as an "authorized" under HFRA.

**Decision Diagram 1:** Using Healthy Forests Initiative CE and Healthy Forests Restoration Act Authorities to Evaluate Project Proposals.

**Is the proposed action:**

- **Outside designated wilderness?** Yes, there is no wilderness in MPB Response Project.

- **Collaborative as described in the *Implementation Plan*? Yes.** The *Implementation Plan* (see Reference below) spells out a collaborative framework that has a three-tiered organization structure - Local Level; State/Regional and Tribal Level; and National Level. The MPB Response Project public involvement process represents a comprehensive participatory collaborative effort at the Local Level as set forth in the *Implementation Plan*. A description of this effort will be summarized in the MPB Response Project EIS, Chapter 1 Public Involvement and Collaboration Section and Appendix A.

If **Yes** to both questions above, go to:

**Is the project's objective to protect communities, watersheds, T& E species, or natural resources by treating hazardous fuels? No,** the focus of the MPB Response Project is also to reduce the spread and impacts of the existing MPB epidemic, protect local communities and resources from large scale wildfire, and move towards achieving desired land and resource conditions as provided by the Forest Plan.

If **No** to this question above, go to:

**Is the project on NFS or BLM land? Yes,**

If **Yes** to this question, go to:

**Consider using HFRA authorities. Go to decision diagram 2.**

**Decision Diagram 2:** Determining Whether a Project Meets the Definition of “Authorized” or “Covered” by the Healthy Forests Restoration Act.

### ***Insect and Disease Test***

**Is the project in an area of blow down, wind throw, or damage by ice storms? No,** see discussion above and the proposed action calls for reducing the threat of mountain pine beetle.

If **No** to this question, go to:

**Is the project in an area with an insect or disease epidemic? Yes,** Information presented by the Rapid City Service Center, ‘Aerial overview detection survey in 2010, Black Hills of South Dakota and Wyoming’, RMSC-03-11’ documents the existence of an expanding epidemic.

If **Yes** to this question, go to:

**Is there a significant risk to ecosystem components or the forest or range resource? Yes,** There are a number of significant consequences to a beetle epidemic of this magnitude. Large scale loss over an area this size will certainly have a negative effect on timber, wildlife, and people (see ‘Aerial overview detection survey in 2010, Black Hills of South Dakota and Wyoming’, RMSC-03-11).

If **Yes** to this question, go to:

**Qualifies as an “authorized” hazardous-fuel reduction project under HFRA**

Given the results evident from the decision diagram exercise presented above, information presented from RCSC, and having reviewed the HFRA statutory guidance and associated documentation, I have directed the MPB Response Project ID Team to proceed with development of proposed projects that are “authorized” project[s]. Furthermore, having reviewed the projects proposed and developed, I have concluded that these projects individually are “covered project(s)”. Thus the cumulative array of projects proposed, that make up the MPB Response Project, permit me to declare that this Project is an “authorized hazardous fuel reduction project” pursuant to the HFRA, Title I, Sec. 101(2) and 102(a)(4).

If you have any questions, please contact MPB Response Project Team Leader Katie Van-Alstyne at (605) 716-2067.

*/s/ Craig Bobzien*  
CRAIG BOBZIEN  
Forest Supervisor

Attachments:

- Decision Diagram from the *Interim Field Guide*

References:

- A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment: 10-Year Comprehensive Strategy *Implementation Plan*, May 2002.
- Healthy Forests Restoration Act (HFRA) of 2003, (P.L. 108-148).
- The Healthy Forests Initiative and Healthy Forests Restoration Act - *Interim Field Guide*, USDA FS, USDI BLM, FS-799, February 2004.