

File Code: 3410

Date: June 25, 2007

Route To:

Subject: Mountain Pine Beetle Epidemic Declaration for Northern Colorado and Southern Wyoming

To: Forest Supervisor, Medicine Bow and Routt National Forests, Forest Supervisor, Arapaho and Roosevelt National Forest, Forest Supervisor, White River National Forest

Based on analysis of aerial survey records and ground survey data sets of forests containing lodgepole pine at risk for mountain pine beetle (Dendroctonus ponderosae) infestation in the core Colorado Bark Beetle Cooperative Project Area (hereafter referred to as the CBBC Project Area), there is reasonable and compelling evidence for me to declare an epidemic of mountain pine beetle in the lodgepole pine forests across the CBBC Project Area and adjacent Albany and Carbon Counties in Wyoming. The study area includes all forested areas in Eagle, Grand, Jackson, Summit, and Routt Counties in Colorado. The CBBC Project Area includes all or portions of the Arapaho, Routt, and White River National Forests. In addition, lodgepole pine forests just north of the CBBC Project Area in Albany and Carbon Counties, WY, including the southern Medicine Bow National Forest, were included in this analysis. If the Forest Supervisors on the Arapaho, Medicine Bow-Routt, and White River National Forests find that there are significant threats to ecosystem components or forest or rangeland resources due to the mountain pine beetle epidemic in these areas, then the expedited NEPA authorities offered by the Healthy Forest Restoration Act are available, as consistent with Forest Plan direction or covered by plan amendment.

The findings of the aerial survey analysis indicate that losses of lodgepole pine to mountain pine beetle have increased significantly in extent and in number over the past eleven years (1996-2006) across the CBBC Project Area and adjacent Albany and Carbon Counties, WY, and greatly exceed endemic-level losses caused by this bark beetle. The cumulative area of lodgepole pine containing trees killed by mountain pine beetle is approximately 975,000 acres in the CBBC Project Area. Approximately 23% – 68% of the acreage in the lodgepole pine forest cover type on private lands and 32% – 70% on National Forest lands contain trees killed by the bark beetle. In southern Wyoming, approximately 120,000 acres of forested land contain trees killed by the mountain pine beetle. Approximately 1% – 6% of the acreage in the lodgepole pine forest cover type on private lands and 2% – 19% of National Forest lands have been impacted.

Bark beetle ground survey data sets obtained between 2002 and 2006 in support of National Forest projects have indicated epidemic-level and rapidly building mountain pine beetle populations in the Arapaho National Recreation Area, Upper Fraser, Blue Ridge, and Rock Creek Analysis Areas in Grand County, the Green Ridge and Sierra Madre Analysis Areas in Jackson County, the Little Snake, and Larson II Analysis Areas in Routt County, the Dillon



Reservoir, Lower Blue, and Keystone Ski Area Analysis Areas in Summit County, the French Creek Analysis Area in Carbon County, WY, and the Devils Gate Analysis Area in Albany County, WY (hereafter referred to as the Bark Beetle Analysis Areas). These bark beetle ground surveys documented the epidemic conditions and the increasing impacts of the mountain pine beetle on the lodgepole pine resource over five years in thirteen analysis areas and nine different geographic locations across the CBBC Project Area and the adjacent Albany and Carbon Counties in Wyoming.

The average number of mountain pine beetle-infested trees found during ground surveys ranged from 2.8 to 89.4 trees per acre, well in excess of an endemic population level of mountain pine beetle of less than 0.5 infested trees per acre. The average rate of increase in the number of trees infested by mountain pine beetle during the survey year compared to the year prior to the survey for the Bark Beetle Analysis Areas was 3.6-fold, indicating that mountain pine beetle populations were rapidly increasing; the rate of increase also suggested that the mountain pine beetle populations would continue to increase rapidly in the year following the surveys.

The age, diameter, and density of the surveyed stands, coupled with the presence of epidemic mountain pine beetle populations within and surrounding the Bark Beetle Analysis Areas, indicated that conditions were favorable for continued losses of lodgepole pine to mountain pine beetle. Older, large diameter lodgepole pine stands at elevations typical of the study area are considered at moderate or high risk of losses if increasing populations of mountain pine beetle are present in the area. Similarly, high lodgepole pine stand density, also characteristic of stands in the study area, is associated with more severe losses during a mountain pine beetle epidemic.

The current mountain pine beetle epidemic is not likely to depart from this projected rapid increase in beetle populations and in losses of lodgepole pine unless a period of prolonged and severe low temperatures (<-30° F) occurs during late fall-winter-early spring months. An extremely severe cold weather event may result in the death of large numbers of the developing mountain pine beetle brood in infested trees and bring this epidemic to an end, as happened in the winter of 1984-85 during the last mountain pine beetle epidemic in this area.

Considering the aerial survey analysis, the ground survey results, and current forest conditions, I conclude that the mountain pine beetle populations have caused rapid losses and severe impacts to the lodgepole pine resource in the CBBC Project Area and adjacent Albany and Carbon Counties in Wyoming. These losses and impacts are expected to expand and intensify over the next five to ten years as this mountain pine beetle epidemic runs its course.

Attached to this letter is Lakewood Service Center Report, LSC-07-06. This report provides the analysis supporting this mountain pine beetle epidemic determination. Please contact Jeff Witcosky (303-236-9541) if you have any questions regarding this pest management analysis.

/s/ Orval Wieber (for)
RICHARD C. STEM
Deputy Regional Forester, Resources