



File: 18818-60/MPB
FPB/SR/

January 6, 2005

Dr. Bruce Fraser
Chair
Forest Practices Board of British Columbia
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Re: **Forest Practices Board Special Report "Evaluating Mountain Pine Beetle Management in British Columbia" (August 2004)**

Dear Dr. Fraser:

On behalf of the Forest Stewardship Division and Bark Beetle Coordinator's office of the B.C. Ministry of Forests, we wish to comment on the above report. Firstly, we appreciate the effort and focus that the co-authors made in making their findings and recommendations. The collaborative approach offered to ministry and industry staff in suggesting effectiveness criteria was greatly appreciated and in many respects strengthened the working relationship necessary to analyze this complex management approach. Now that our forest entomologists have had some time to digest this report, a number of technical issues have been raised. The remainder of this letter offers these technical issues for your consideration.

The report was not clear with respect to definitions for the term's "endemic", "incipient", "epidemic", "suppression" and "salvage". These terms are accurately defined in the Ministry of Forests' (MOF's) "Provincial Bark Beetle Management Technical Implementation Guidelines (Spring 2003) or Forestry Canada's mountain pine beetle (MPB) web site at: http://www.pfc.forestry.ca/entomology/mpb/outbreak/incipient_e.html. However, it appears that different definitions were used for this report. For instance, the report coined



terms such as “*transition*” and “*trailing edge*” and used these terms in the context of “*endemic*” and “*salvage*” (on pgs. 53-54). This led our entomologists to disagree with portions of the report’s conclusions.

The report’s “*trailing edge*” strategy applies to recovery of recently-dead timber within the Ministry’s “*salvage*” zones. The MOF recognizes in its *2004 Action Plan* released in April that where control is no longer feasible, salvage objectives should prevail. As such, the MOF is increasingly facilitating salvage strategies in much of the Central Interior where the objectives have gone from “suppression” to “holding” to “salvage.” However, unlike the report’s suggestion, we do not expect “*beetle management units*” (BMU’s) with salvage objectives to have any impact on controlling the beetle population. Therefore, we hold a contrary view to the Board’s statements in the report on pages 4 and 5, respectively:

“These stands (in salvage or “trailing edge” zones) may actually serve to both recover salvage volume that is relatively young (and hence still quite valuable) and to reduce MPB population levels significantly (and perhaps achieve greater population reductions than in leading edge stands that may exhibit some detectable attack, but may not yet contain large numbers of MPB)” (our underlining).

The “trailing edge strategy” “appears to have relatively high effectiveness in terms of maximizing salvage recovery and reducing MPB populations.” (our underlining).

In new salvage zones, it is not biologically possible to “*reduce populations significantly*” given the magnitude of the beetle population that resides there. While you might be able to harvest more trees containing beetle broods in salvage zones, the billions of beetles left in other adjacent unlogged trees means you achieve no real or significant impact on local beetle populations. Therefore, no net beetle control is achieved at a landscape level.

On page 13 it was stated:

“Within each EMU management zone are several Beetle Management Units (BMU’s) that are assigned one of four specific MPB management strategies.”

In actuality, emergency designations under the *Bark Beetle Regulation* are “*Aggressive*” or “*Sanitation*”. “*Emergency management units*” (EMU’s) contain only holding or suppression BMU’s. For example, an aggressive EMU contains only suppression BMU’s, not BMU’s of other strategies.

The report also stated: “*The holding strategy is applicable to chronically infested stands where the MPB population has collapsed but where there are still susceptible stands*” (our underlining). However, if a zone is chronically infested, by definition, the resident population has not collapsed. Under the Ministry of Forests’ (MOF’s) beetle management unit designations, holding BMU’s are accessible zones where larger-block sanitation harvesting is undertaken to remove 50 - 79% of infested trees.

On page 23 it was claimed that: “*To date, there has not been a test of the efficacy of the MPB management strategy, as applied on the ground, in achieving these objectives.*” For your

information, Phero Tech Inc. and Deloitte Touche conducted a detailed cost-benefit of beetle management in 2 Districts in 1993 in the modern equivalent of suppression BMU's. The analysis showed that an annual expenditure of \$4.5 million in MPB management resulted in a net benefit of \$72 million province-wide in stumpage and lumber recovery values (Miller *et al.* 1993). Even though the magnitude of the present infestation is vastly larger today, the economic analysis from this report is still valid in suppression BMU's located in areas like the Peace River and in portions of the Mackenzie, Merritt, and a few other Timber Supply Areas.

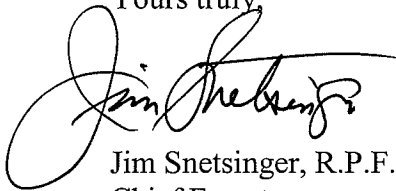
On page 32 it was claimed that "*The high level of salvage implies that such stands are capable of high production of MPB*". While new salvage zones may contain high MPB numbers, older salvage zones are seeing populations collapse because of host depletion.

It seems that the above text was not reviewed by a forest entomologist (as per the report's acknowledgements). Although we appreciate the difficulty in acquiring a qualified forest entomologist in this busy climate, we feel that the report could have greatly benefited from such a specialist's review of the draft before it was finalized. This would have facilitated a more appropriate interpretation of various documentation and suggested management approaches.

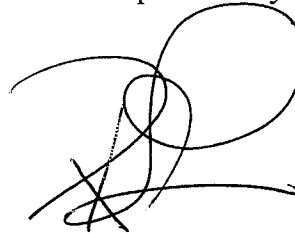
Since the release of this report, several of our staff have attempted to answer questions from various members of the public and forest practitioners about the Board's newly proposed "*trailing edge strategy*." We have been unable to provide much relevant comment in light of the concerns expressed above.

We look forward to continuing to work with you in future audits and investigations of beetle-related and other matters and we anticipate your response to these points. If you have any questions or concerns, please contact the undersigned.

Yours truly



Jim Snetsinger, R.P.F.
Chief Forester



Bob Clark
Provincial Bark Beetle Co-ordinator

c.c. R. Archibald
Regional Executive Directors
District Mangers
D. Routledge (COFI)

Reference:

A Socio-economic Analysis of Mountain Pine Beetle Management in British Columbia.
Miller, D., Carlson, J., and M. Stemeroff (1993). Phero Tech/Deloitte and Touche, 60 pg.