

THE NEED FOR ACTION

WHAT IS BEING DONE AND PLANS FOR THE FUTURE IN BRITISH COLUMBIA

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The mountain pine beetle and the devastation that it has caused during the past five to six years will have a major negative impact on future timber supply projections in the interior of British Columbia. Twenty years ago, lodgepole pine was not one of the major species harvested in British Columbia. Whereas increased harvesting of this species had begun in the better stands in the northcentral interior by 1960, the harvest of lodgepole pine in the southern interior was not significant.

Today, however, lodgepole pine has become one of our most important interior species—both for the manufacture of lumber and pulp. The percentage of the interior British Columbia harvest that was attributable to lodgepole pine increased some 350% in the twenty years prior to 1980, until today with the species comprising some one-third of the total interior harvest. In the Nelson Forest Region, the increase has been even more dramatic—with over a 900% increase in the percentage contribution since 1960. For a variety of reasons, including the poor market situation and the rate of infestation, it is becoming impossible to salvage all the dead and dying timber. For example, a recent submission by the Association of British Columbia Professional Foresters stated that, of the 23 000 hectares infested in the Flathead Valley of the East Kootenays, only 6 000 hectares had been logged or was loggable.

Apart from some earlier, more localized infestations of spruce bark beetle, wood losses caused by insects up to 1975 were not excessive. Annual average losses were estimated at some 1 400 000 cubic metres. Recently, the losses from all forest insects have increased dramatically. These losses are cur-

rently estimated to be 46% of the total annual losses in the province from fire, insects, and disease combined. From 1975 to 1980, the area of infestation in British Columbia rose dramatically—from 38 700 hectares to approximately 550 000 hectares. Even more frightening is the fact that there are some 2 500 000 hectares of lodgepole pine considered susceptible to attack.

Canadian Forestry Service data in the Nelson Forest Region shows how the number of attacked trees has increased. To date, it is in southeastern and central British Columbia where infestations have been most serious. Many areas of attack involve steep slopes and inaccessible areas, which cause major, and often insurmountable, challenges to salvage operations.

The volume of wood lost annually during the 1975-1980 period was approximately 15 million cubic metres a year, or ten times the annual loss prior to 1975. Stumpage losses to the province have been considerable and are expected to increase. Of course, potential revenue to the federal government through other avenues is also lost. Losses from reduced exports are also substantial. Today, the problem is further aggravated because of the economic downturn, which is having major effects on the industry. Throughout British Columbia, the rate of harvest is beginning to be curtailed for this reason. Thus, while the beetle infestation is spreading faster, salvage is slowing down.

In the Nelson Forest Region of British Columbia and especially in the East Kootenays, the sawmills have been handling increasing volumes of lodgepole pine in a cooperative program with the Ministry of Forests to minimize losses and to help in the control

program—that is, until the recent economic downturn. Major planning efforts against the mountain pine beetle have come through two active committees founded several years ago: the East Kootenay and the Kettle Valley Insect and Disease Control Committees. These committees are comprised of representatives from the Forest Service, major timber operators, Canadian Forestry Service, and other agencies concerned with land management, such as the Parks Branch (British Columbia) and the Ministry of Environment (British Columbia). The committees recommend changes necessary in harvesting plans to deal with the beetle situation, in order to speed up harvesting when necessary. The committees have achieved a large measure of success. A report from the Nelson Forest Region puts the problem into perspective. In part, the report says that mountain pine beetle salvage efforts have caused serious disruptions of normal harvesting plans: "... because the sustained salvage program has resulted in removal of extensive areas of lodgepole pine, there will also be long-term impacts on the species profile and on the location of future logging opportunities... most licensees in the East Kootenay have come close to their target of deriving 70% of their log supply from mountain pine beetle salvage. Intensive mountain pine beetle salvage has also been undertaken in the Kettle Valley Area. Overall, salvage production has not yet resulted in overcutting of the annual allowable cut (AAC) of any timber supply area (TSA). However, there are indications that we are facing another spruce bark beetle epidemic, in which case overcutting may occur. Because spruce stands are often not on common road systems with lodgepole pine, our ability to concentrate on mountain pine beetle will be further diluted."

A reanalysis of timber supply management programs and of the pertinent rates of harvest is currently being undertaken throughout the province, with 30 of the 34 timber supply areas completed. Throughout the interior of the province, this analysis is reconfirming that the timber supply areas usually have a significant imbalance of age classes.

Often, there is a larger component of mature and overmature white spruce and lodgepole pine, with a related shortage of older, immature age classes. The susceptibility of these old-growth forests of spruce and pine to bark beetle attacks has led to the confirmation of an approved rate of harvest in excess of the long-run sustained yield level. This decision often results in a future fall-down pro-

jection in the short term. All the reforestation programs in the world will not solve a short-term timber supply problem. It can only be minimized (or eliminated) through increased utilization practices and through increased protection measures against fire, insects, and disease.

In August of 1981, the Government of British Columbia announced an \$11.4 million program for bark beetle control, including the building of access roads into beetle-infested areas for selective sanitation logging. We emphasized that this is not a salvage operation. Rather, the top priority is getting to the margins of the infested areas in order to slow down the spread of the infestation and to buy time through pertinent control measures and selective harvesting programs.

As the Minister of Forests said at the time: "Up to now, the biggest barrier to sanitation logging has been the lack of road access to the threatened stands of timber. Now we are providing the money to build the roads. With the orderly planned harvest of threatened wood, we can take suppression measures to inhibit the spread of the beetle and to lay the foundation for reforestation programs that will minimize the recurrence of beetle infestations in the future."

Of the \$11.4 million, \$7 million is being spent in the current fiscal year.

What of the future? We know the biology of the mountain pine beetle. Our problem is to apply the existing knowledge to our land management practices.

Like all insects, the mountain pine beetle knows no political boundaries. What we need are mutual agreements for action, where the beetle invades another province, state, or country. Such agreements should include undertaking control programs, salvage logging, and rehabilitation and reforestation programs in areas adjacent to boundaries. In addition, arrangements for sharing fire-fighting equipment and services should be made. It is ineffective for one province, state, or country to undertake control programs and sanitation logging plans to inhibit the spread of an infestation, if it is allowed to spread unimpeded on the other side of the boundary. I believe these agreements should also include national, provincial, and state parks. Huge infestations in parks are just as explosive as they are on other forest lands.

Some horrendous future problems are anticipated as a result of the current infestation. Where salvage operations have not been undertaken, vast areas of dead and dying trees pose an explosive fire hazard. Cost of rehabilitation will be excessive.

The submission prepared by the Association of B.C. Professional Foresters estimated rehabilitation and reforestation costs in the Flathead Valley, alone, to be some \$10 million. The briefs called for the valley to be given disaster status and for the Governments of British Columbia and Canada to jointly finance this rehabilitation project.

Of course, the threat from mountain pine beetle can be alleviated to a significant degree, in the long term, by forest management programs. A more variable mosaic of age classes, minimal areas of overmature timber, mixed species types, etc., will all contribute. While timber management and silviculture programs must work toward this end

over the future decades, I've chosen not to develop this theme in my presentation today. I understand that the theme of this meeting is to clarify the "state of the nation" (or nations) today and to work toward short-term solutions to minimize the negative impacts of the mountain pine beetle infestation. I simply wanted to clarify that, in my opinion, long-term solutions lie primarily in the judicious choice of timber management and silviculture options.

I appreciate that this is not the appropriate time in today's program to discuss proposed options and programs. When that time comes later today, I'd suggest that we develop some cooperative and compatible programs between provinces, states, and countries to address the mountain pine beetle infestation simultaneously on five broad fronts: control programs; salvage programs; fire protection programs; rehabilitation and silviculture programs; and research.