

# Pine Beetle Management in Alberta

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## Issue

The mountain pine beetle is the single greatest threat to the health of Alberta's forests, threatening approximately six million hectares of pine forests in the province – including 4.5 million hectares available for commercial harvesting.

Timing is critical to controlling mountain pine beetle infestation. Early detection and treatment of infested trees is a vital method for mitigating the spread of the beetle. Left unmanaged, mountain pine beetles could destroy Alberta's forests and spread eastward across Canada's boreal region and the thousands of jobs that depend on that fibre supply.

With the mountain pine beetle ravaging the forests of Jasper National Park and no control efforts in place to deal with the mass infestation, the boreal forests of west central Alberta are now under attack and several years of major in-flight from the parks are expected.

Funding for direct control efforts, planning and ecosystem management is of high priority.

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## Background

The mountain pine beetle is the most destructive native insect pest of mature pine forests in North America. The current mountain pine beetle outbreak started in British Columbia in the early 1990s, destroying almost half of that province's total volume of commercial lodgepole pine before beetle populations peaked in 2011.

According to Alberta Agriculture & Forestry, the mountain pine beetle is the single-greatest threat to the health of Alberta's forests, threatening approximately six million hectares of pine forests in the province – including 4.5 million hectares available for commercial harvesting.

Mountain pine beetle mortality surveys conducted by the Government of Alberta in the spring of 2012 show marked increases in the existence and severity of beetle infestations farther north, east and south than ever before. The same surveys indicate that the probability of in-flights, carrying beetles eastward from adjacent infested areas, is moderate to high in most regions in the province.

Mountain pine beetles breed in any species of pine, of which four – lodgepole, jack, white bark and limber – are found in Alberta. This epidemic is the result of a number of factors, including successive mild winters, modern fire suppression resulting in an overabundance of mature pine forests, and the natural beetle population cycles.

Timing is critical to controlling mountain pine beetle infestation. Early detection and treatment of infested trees is a vital method for mitigating the spread of the beetle. Left unmanaged, mountain pine beetles could destroy Alberta's forests and spread eastward across Canada's boreal region and down the eastern seaboard, unimpeded by trees without any natural resistance to the pest. Funding for research, planning and long-term ecosystem management is of high priority, however a long-term commitment to effectively fund control efforts by the provincial and federal government is needed. In the 2016 provincial budget, the Alberta Government committed \$32.5 million towards mountain pine beetle efforts and the

Saskatchewan Government continued their commitment to fight the mountain pine beetle in Alberta by providing \$1.25million. The Government of Canada is absent on this important national issue and has not provided ANY funding for the mountain pine beetle control efforts, even though this native-invasive species has already crossed two provincial borders and threatens all Canadian pine species, especially the Canadian boreal forests.

The Alberta government's Pine Beetle Action Plan addresses the following priorities to manage the beetle infestation:

- Containing current infestations and minimizing the spread of mountain pine beetle in all areas along the Eastern Slopes where infestations have been detected.
- Preventing mountain pine beetle from spreading eastward farther into the boreal forest through the hybrid lodgepole-jack pine and pure jack pine stands that stretch across the Prairies and into Central Canada.
- Reducing the volume of susceptible pine in the working forests over the next 20 years.

Forests help clean our air and release oxygen. They store carbon as wood, which helps reduce global warming. They also contribute to the water cycle by improving water quality and quantity (i.e., by lowering water temperatures, reducing runoff and erosion, and affecting the timing and amount of stream flow). In addition, forests provide food and shelter for a variety of fish and wildlife.

Infestations create numerous social, economic and environmental effects, including watershed health, fish and wildlife habitat, tourism and recreation opportunities, community sustainability, and the province's forest industry.

In Alberta, every cubic metre of pine timber used in the production of lumber or pulp generates \$70 to \$100 indirect economic activity. If the pine-growing stock were to be killed by mountain pine beetle, the Annual Allowable Cut would decrease by an estimated six million cubic metres per year, resulting in a reduction in economic activity of \$420 to \$600 million per year. The estimated value of Alberta's pure pine stands is over \$8 billion, not including mixed pine stands. On average, each year the forest industry contributes \$836 million in taxes and \$44 million in stumpage payments to the province.

Mountain pine beetle control initiatives protect:

- Alberta's third largest industry - Forestry generates \$5.3billion to the Alberta economy.
- The 19,600 direct jobs and nearly 40,000 indirect forestry-related jobs (equipment sales/service, consulting, supplies, hospitality, etc) and the economies of more than 70 forestry-dependent communities in Alberta.
- 90,000 hectares of watersheds, including 8,000 hectares of primary sources for drinking water in southern Alberta and another 5,000 hectares of secondary drinking water sources.

The Alberta Chambers of Commerce supports the goals and directions of the Pine Beetle Action Plan, and would like to make the following recommendations to ensure that our provincial government addresses the range of priorities that are critical in continuing to effectively addressing this issue.

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**The Alberta Chambers of Commerce recommends the Government of Alberta:**

1. Continue its current funding commitments and at a minimum lobby the Government of Canada for similar funding to address mountain pine beetle along the leading edge in our province, to contain farther eastward spread and protect the long term health of the forests and the industries that are reliant on them.
2. Develop strategies to rehabilitate the areas affected by mountain pine beetle in a timely manner.

3. Form alliances with other provinces to mitigate the impact of mountain pine beetle on our province and provinces eastward moving into the future.
4. Work with non-governmental fish-and-game and environmental associations in addressing this epidemic and its impact on natural resources and the environment.
5. Assess the epidemic's impact on communities that are dependent on harvesting pine, and develop economic and social strategies to diversify the economic base of the affected communities to ensure that they continue to be strong and viable.
6. Lobby the Government of Canada/Parks Canada to better manage forests within national parks, and help to mitigate problems coming out of the parks.
7. Work in cooperation with the forestry industry to quickly adapt and approve harvest plans and coordinate efforts to quickly address mountain pine beetle