## **Mountain Pine Beetle Action Plan 2006-2011**



September 2006

## **ACTION PLAN SNAPSHOT: REFORESTATION**

Restoring forest resources in areas affected by the mountain pine beetle epidemic is a key objective of British Columbia's 2006-2011 Mountain Pine Beetle Action Plan.

The beetle epidemic has spread to more than 8.7 million hectares of the province, affecting the commercial timber supply and other uses like recreation. The scale of the epidemic also poses risks to wildlife, fisheries, hydrological functioning and biodiversity.

Thousands of hectares of beetle-infested forests have been salvage logged in the past few years to recover economic value from the attacked timber before it degrades. By law, the forest companies logging these areas are responsible for reforesting them. All harvested areas must be reforested with ecologically suitable and commercially valuable species, and the young forests managed for multiple values until they are well established.

Not all of the beetle-attacked areas will be harvested, however. Overall, about 20 per cent of beetle-impacted forests will be retained for environmental and other reasons, including economics of harvesting. In some areas, wood quality will have degraded too far to be used for lumber or other wood products. Additionally, although the mature pines are dead, these forests still provide important habitat for plants and animals, and contribute to clean water for community watersheds and aquatic life.

Although forests will regenerate naturally in time, conducting reforestation activities now will help recover timber supplies and provide for other forest values sooner, delivering both economic and environmental benefits. The Province has committed \$161 million to the Forests for Tomorrow program, which is reforesting sites in areas impacted by the beetle and catastrophic wildfires from 2003 and 2004 on a priority basis.

Funds will largely go to seeds, seedlings, site preparation, planting and fertilization, as well as surveying, mapping, analysis and research. With the program in its early stages, the focus is on identifying productive growing sites that won't be harvested. To date, aerial photography has been conducted over half the area impacted by the beetles, with both aerial surveys and ground surveys conducted on thousands of hectares in the heavily attacked areas in the Central Interior.

Survey and mapping data are also being used to identify established stands of spruce and Douglas-fir that are suitable for treatments such as fertilization to bring them to a harvestable stage sooner. Since all the trees that will be harvested in the next 50 years are already growing, such activities will help moderate the expected timber supply decline in the mid-term (30 to 60 years).

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It takes time to identify priority areas and raise seedlings to an appropriate size for planting. In 2006 the number of seeds being sown for both private and government reforestation efforts across the province numbered over 250 million, with this number to grow in the coming years due to the mountain pine beetle.

Care is being taken in silviculture planning to ensure that reforested areas don't contribute to another large-scale beetle outbreak in the future. Research is underway to determine optimal species mix and composition. This work is linked to the Future Forest Ecosystems initiative, which is considering how to manage forests so they are more resilient to large bark beetle infestations and other agents of catastrophic ecological change.

The infestation is also impacting domestic range values. To respond to the needs of ranchers, government is directing funding from the emergency response strategy to replacing fences and natural range barriers, as well as to addressing forage issues.

The emergency response strategy is also funding ecosystem restoration, which is being coordinated by the Ministry of Environment. Efforts are designed to address wildlife, fisheries, watershed and biodiversity values in areas impacted by the beetle infestation using restoration treatments that will improve fish passage in culverts, improve water quality, and provide suitable habitat for aquatic and terrestrial species.