

Forests for Tomorrow

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RESPONDING TO CATASTROPHIC WILDFIRES AND THE MOUNTAIN PINE BEETLE EPIDEMIC

Forests are constantly changing. Among the many agents of change are natural disturbances such as forest fires and insect outbreaks. Although such forces play a valuable role in the life cycle of forest ecosystems, both the current mountain pine beetle epidemic and recent catastrophic wildfires are having a severe impact on the forests in British Columbia's Interior.

Today's pine beetle epidemic is the largest in North America's recorded history. Beetles have killed pine trees across 8 million hectares in the Central and Northern Interior since the 1990s. Catastrophic wildfires in 2003 and 2004 have also had an impact, together burning 490,000 hectares.

The relatively large size of these disturbances is affecting human activity in the forest, as well as environmental values. British Columbia has increased the rate of harvesting in some parts of the Interior, so the dead trees can be used to make lumber and other products before the wood degrades. This temporary increase, however, will result in a reduction in the timber harvest in the mid- to long-term. The infestation and the aftermath of wildfires also pose risks to human safety, wildlife, fisheries, water and biodiversity.

In response, the Province of British Columbia has established the reforestation program Forests for Tomorrow. This program is aimed at improving the future timber supply and addressing risks to other forest values. Over four years, \$161 million will be invested in seed and seedling production, site preparation, planting and fertilization, planning, mapping, research and monitoring.

Forests for Tomorrow is reforesting areas hardest hit by the mountain pine beetle and past wildfires. With a sound scientific foundation and respect for both human and environmental values, Forests for Tomorrow is helping to ensure sustainable forests and forest benefits for future generations.



All harvested areas must be reforested, using ecologically suitable, native species.



Investments are being made in aerial and satellite photography and ground surveys to help identify priority planting areas.



PRACTISING SUSTAINABLE FORESTRY

Provincial law requires logged areas to be reforested and managed for multiple values until the young forests are well established, typically in 14 to 20 years. This means that in areas where beetle- and fire-affected timber is being salvaged, forest licensees will be planting ecologically suitable, native species to grow in their place.

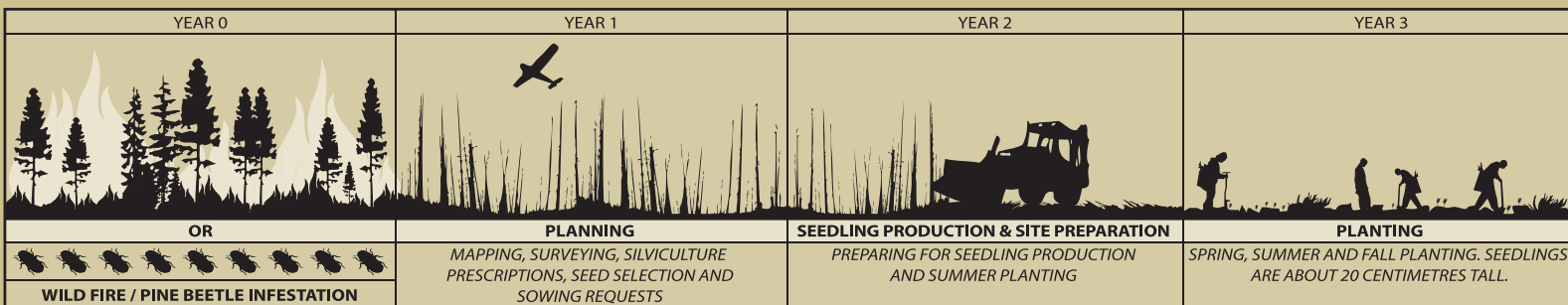
Not all of the forests disturbed by the beetle and fires will be commercially harvested, however. Overall, about 20% of these forests will be intentionally left as they are for economic or environmental reasons. In some areas, timber has degraded too much to be useful for manufacturing. As well, maintaining forests that vary in age and structure contributes to habitat for plants and animals.

INVESTING TODAY FOR FORESTS TOMORROW

Although new forests regenerate in disturbed areas over time, an active reforestation program will restore forest values, including timber, more quickly and effectively.

Forests for Tomorrow funds are being targeted strategically at areas that won't be commercially harvested, but are important for the future timber supply or ecological functioning. The highest priority sites are those that are productive for growing trees and also support wildlife habitat, water, fisheries and other forest values. Planting seedlings in a site where mature trees are dead can help prevent erosion and ensure proper water flow, while helping to restore wildlife habitat and biodiversity at the landscape level.

Aerial and satellite photography and ground surveys are being used to help identify priority planting areas. Once these areas are selected, professional forest managers prepare silviculture strategies that describe how the sites should be reforested and managed. These strategies reflect the input of a variety of stakeholders, including First Nations. They also reflect local priorities for forest values that are identified in approved land use plans. Reforestation activities are timed and planned to contribute to non-timber values, for example, restoring fish habitat in streams.



PLANTING RESILIENT, DIVERSE FORESTS

In British Columbia, reforestation activities are strictly regulated so that new forests mirror the diversity of natural forests and support the harvest of commercially valuable timber over time.

Although the predominant species in beetle- and fire-affected areas are pine and spruce, a variety of ecologically suitable species will be planted to promote biodiversity. Seeds being used in reforestation come from two sources: seed orchards that produce “select” seed from trees with proven growth, timber and pest resistance qualities, and wild stands. As a result, new forests will have considerable natural genetic variation and be adapted to their various growing conditions, elevations and micro-climates.

Besides addressing long-term needs for timber through reforestation, Forests for Tomorrow is also responding to the anticipated decline in timber supply in the mid-term. Funds are being used to fertilize mature spruce and Douglas-fir stands to bring them to harvestable size sooner.

Ensuring the safety of silviculture workers is paramount. Both WorkSafeBC and the B.C. Forest Safety Council are involved in programs to improve safety, for example, in delivering danger tree assessment training.

BUILDING A SCIENTIFIC FOUNDATION

Ensuring a sound scientific and technical foundation for silviculture activities is a guiding principle of Forests for Tomorrow.

One priority is to reduce the risk of another large-scale mountain pine beetle epidemic in the future. Forest managers are relying on a broad range of scientific knowledge and the latest research to develop sound reforestation strategies. By focusing on diversity and long-term management, it is expected that forests will be more resilient to climate change and natural disturbances.

Research being conducted under Forests for Tomorrow supports the fundamental stewardship responsibility held by government for public forest lands. Ongoing effectiveness evaluations will ensure that stated goals are being met and learning is applied. This commitment to continuous improvement is central to sustainable forest management.

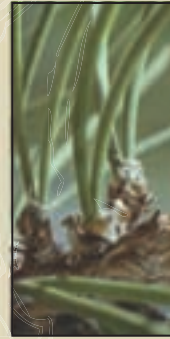
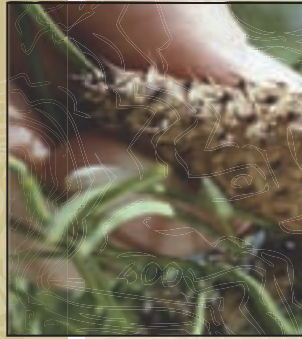


Ensuring the safety of silviculture workers is a priority of all Forests for Tomorrow activities.

By focusing on diversity and long-term management, forests being planted today may be more resilient to climate change and natural disturbances.



YEARS 4 - 13	YEARS 14 - 20	YEARS 20 - 80+
<p>MONITORING MAPPING, SURVEYING, MONITORING AND BRUSHING WHERE REQUIRED</p>	<p>FREE GROWING YOUNG TREES CAN OUTGROW COMPETING VEGETATION</p>	<p>MATURE TREES MATURE TREES REACH HEIGHTS OF 30-50 METRES, DEPENDING ON THE SPECIES</p>



PROGRAM LINKAGES

Forests for Tomorrow is connected to the following reforestation and beetle-response programs in order to leverage the latest scientific knowledge and to avoid duplication.

- *Mountain Pine Beetle Action Plan*
- *Mountain Pine Beetle Emergency Response: Canada – B.C. Implementation Strategy*
- *First Nations Mountain Pine Beetle Working Group*
- *Forest Investment Account – Land Base Investment Program*
- *Natural Resources Canada – Mountain Pine Beetle Initiative*
- *Future Forest Ecosystems Initiative*

FIRST NATIONS INVOLVEMENT

The Forests for Tomorrow program is providing an opportunity for First Nations communities and businesses to use or gain knowledge and expertise in reforestation and related projects. This reflects First Nations' interest in the land and in cultural and traditional activities that may be practised in areas being reforested.

First Nations people are invited to participate in strategic planning activities to provide guidance on which areas should be reforested or selected for enhanced productivity measures. This includes identifying areas where non-timber values could be restored.

PROGRAM DELIVERY

Forests for Tomorrow is managed by the Ministry of Forests and Range, with the input of the Ministry of Environment and the Ministry of Agriculture and Lands.

The role of the Ministry of Forests and Range is to strategically plan and develop policy and guidance, prioritize areas for treatment and conduct analysis, research and effectiveness evaluations. Funds for operational reforestation are administered by an independent third-party administrator, with industry and silviculture contractors invited to bid on multi-year contracts. These activities must be conducted in a transparent, accountable manner, as required by public administration accounting.

FOR MORE INFORMATION

Visit the Forests for Tomorrow webpage at the Ministry of Forests and Range: www.for.gov.bc.ca/hfp/fft

