



Forest Health

Update to Prescribed Fire and Mountain Pine Beetles

Backgrounder: Mountain Parks

A Need for Change

Updates to several management plans are required in order to reflect strategies for forest health related to the mountain pine beetle, and to provide more detailed direction for the application of prescribed fire in the mountain parks.

Background

- Some types of vegetation in the mountain parks, such as open forest-grassland, montane grasslands and young forests, have declined in extent as a result of almost a century of fire suppression. This has decreased biodiversity, increased the risk of catastrophic wildfires, and created large continuous areas of old pine forest that are more vulnerable to forest insects and diseases, including mountain pine beetle.
- In fire-dependent forest communities (e.g. lodgepole pine), fire promotes vegetation diversity by creating young forest patches, reducing forest canopy and restoring openings.
- The mountain pine beetle is native to western North America; periodic increases in the size of the population are a natural occurrence in the pine forests of Alberta and British Columbia.
- The current growth of the mountain pine beetle population has killed large stands of lodgepole pine, particularly in the west end of Yoho National Park and the south end of Kootenay National Park. Mountain pine beetle also affects whitebark pine and limber pine.
- A series of unseasonably warm winters has allowed higher than normal populations of beetles to survive the winter.
- The mountain parks have implemented several methods to control the mountain pine beetle, including annual surveys, hand-cutting and burning of individual colonized trees, and prescribed burns. Pheromone baiting has also been carried out in Banff National Park.
- By promoting growth of a mixed forest, Parks Canada's program of prescribed burns increases biodiversity, helps slow the spread of the mountain pine beetle, reduces fuel build-up in stands killed by the beetles, protects people and facilities from catastrophic wildfires, and may limit future beetle infestations.
- Parks Canada and the Alberta Government have prepared the *Banff Regional Forest Management Plan*, which coordinates the approach to the mountain pine beetle along the eastern portion of Banff and on neighbouring provincial lands.
- Jasper National Park has been working with neighbours to address MPB issues through the West Yellowhead Mountain Pine Beetle Committee.
- Other parks are also working with neighbours to address forest issues of mutual interest.

Existing Management Plan Direction

Banff, Jasper, Yoho, Kootenay and Waterton Lakes

- restore 50% of the long-term fire cycle through prescribed burns and lightning-caused fires
- use prescribed fire to restore specific habitats (e.g. elk winter range in Kootenay, and caribou habitat in Jasper).

Banff, Jasper, Yoho and Kootenay

- monitor forest insect populations and diseases

Mount Revelstoke and Glacier

- establish fire management objectives for each fire management area
- maintain an appropriate natural fire cycle in several areas of the parks
- no specific direction for prescribed fires.

Considerations

- Parks Canada works with provincial government agencies in British Columbia and Alberta, and other regional stakeholders to manage the mountain pine beetle.
- The spread of mountain pine beetle is a serious economic concern.
- Beetle populations have expanded rapidly in British Columbia, most recently in Yoho National Park, and are expanding on the Alberta side of the Rocky Mountains.
- The beetle is not a serious concern in Mount Revelstoke and Glacier where there are no large pine forests. Although fire is a natural process in these parks, fire cycles are longer in the more humid environment of the Columbia Mountains.
- The parks are preparing, or have completed, detailed fire management plans. These plans identify landscape-level fire targets, priorities for facility protection and strategies to achieve other ecosystem management goals such as providing habitat for species at risk, and mitigating the spread of mountain pine beetle populations.

Future Directions

Parks Canada welcomes public comments on the following proposed direction for the revised management plan.

The revised management plans will be updated to build on existing ecological and vegetation management direction, and incorporate additional direction for fire and vegetation management:

- to restore the ecological role of fire in the landscape: identify landscape-level fire targets and key areas requiring attention over the next five to ten years
- to protect people and facilities from the risk of uncontrolled wildfire
- to restore ecological communities impaired due to past management practices, particularly where those natural communities provide habitat for species at risk
- to support additional ecosystem management goals, such as:
 - increase the resilience of forests to insects (such as mountain pine beetle) and disease;
 - restore vegetation diversity to minimize the potential for future insect outbreaks;
 - continue to work with neighbouring jurisdictions to slow the spread of mountain pine beetle onto neighbouring lands;
 - use fire to reduce mountain pine beetle populations in areas where appropriate and feasible;
 - wherever possible, use prescribed fire as the preferred long-term management tool to reduce the potential for future mountain pine beetle infestations, and to improve forest health and landscape diversity, and;
 - where necessary, use intensive management approaches such as pheromone baiting, hand-cutting and burning to mitigate the risks to adjacent forests.