

Balancing fire safety with ecological integrity

The Firesmart – ForestWise program in Jasper National Park of Canada

Forest fires are a challenge for Parks Canada. Fire is an integral part of park ecosystems, but large uncontrolled fires can be catastrophic, and threaten park facilities and visitors. At Jasper National Park of Canada, Parks Canada is participating in a program that balances public safety with the ecological needs of the forest.

The FireSmart – ForestWise program aims to reduce wildfire risk while maintaining wildlife babitat and aesthetic qualities in the narrow fringe of forest land adjacent to the Town of Jasper.



Fire is an integral part of a forest's life cycle. © Parks Canada, R.Grey, 1973.

Mother Nature's fire regime

For millennia, forest fires have shaped the landscape of Jasper National Park, maintaining a healthy mixture of young and old forests, shrub-lands and open meadows. The empty spaces cleared by fire allowed new, young growth to appear, providing abundant habitat for wildlife.

However, since the 1930s, fire suppression has greatly reduced wildfires. Decades of fire suppression created an unnaturally old forest with reduced biodiversity. The forests in



Jasper's forests are scenic attractions and provide important habitat for wildlife. © Parks Canada, P. Potter, 1987.

Jasper, like many others in North America where fire was suppressed, support a limited variety of wildlife. And ironically, these forests are increasingly susceptible to fire. The dead wood and debris in these artificially old forests increases the risk of a large, catastrophic fire.







Creating a fire-safe zone

The Jasper community rallied behind fire protection and ecosystem restoration 2002 efforts. Work began in with neighbourhood work bees. Residents thinned small demonstration sites, up to one hectare in size, removing trees and other vegetation from the forest floor. In the winter of 2003-2004, light-impact logging equipment was used to thin larger areas, providing further protection to residential while disturbing remaining areas vegetation as little as possible.



The ForestWise – FireSmart program is reducing the fire risk near the town of Jasper. © Parks Canada, W. Lynch, 1989.

The loggers were careful to protect the park environment. They used selective thinning

techniques, known as landscape logging, that remove fewer trees than traditional logging. Workers burned small piles of pruned treetops and limbs, returning to the soil some of the nutrients provided by natural fire.

Achieving the goal

FireSmart – ForestWise is well on its way to the ultimate goal of creating a 350 ha fringe of thinned forest surrounding the town of Jasper and the Lake Edith cottage subdivision. Parks Canada will maintain this thinned forest through prescribed burns, as appropriate, helping to protect residents and return the forest to a more natural balance.

The knowledge gained through *FireSmart - ForestWise* can further fire safety and ecological integrity not only in Jasper National Park, but also in forest communities across Canada.

For more information visit www.pc.gc.ca/jasper



