

## NELSON & AREA WILDFIRE RISK REDUCTION

BC PARKS, REGIONAL DISTRICT OF CENTRAL KOOTENAY, AND CITY OF NELSON

# Fuel Mitigation Frequently Asked

## What is Fuel Mitigation

Fuel Mitigation is the process of reducing the risk of an intense wildfire by removing an appropriate amount of fuel (excess woody debris, fallen trees, dead standing trees). The end result is a forest that helps to act as a barrier to rapid fire spread.

## How do wildfires spread?

Aside from direct flame contact, wildfires spread most rapidly from small embers called 'firebrands' being lofted into the air by hot smoke or transmitted by strong winds. Aggressive Crown fires are known to throw firebrands up to 2 kilometers ahead of a fire front. Fuel mitigation attempts to modify the arrangement of fuels in a forest in a way that reduces the chances of aggressive crown fire development.

## Which types of forests are the most at risk?

Dense continuous coniferous forests are most at risk for aggressive wildfire spread and particularly when the trees are young (branches that touch the ground) and that are even aged (roughly the same height). Discontinuous forests and forests with a high component of deciduous trees and fire tolerant conifer trees are more favorable for reducing rapid fire spread and crown fire activity. Deciduous trees typically hold water in their leaves while some species of coniferous trees use flammable resins to keep from drying out.

## What is a crown fire?

A crown fire is when ladder fuels (dense younger trees and thick lower limbs) allow a ground fire or surface fire to climb into the tree tops. Once established in the tree tops, an aggressive fire then quickly spreads from tree crown to tree crown or from forests towards homes. Crown fires can move through the forest quickly, are difficult to control and dangerous for wildland fire fighters to work around.

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*Working together to reduce the risk of wildfire in our communities.*

[www.rdck.ca/wildfireriskreduction](http://www.rdck.ca/wildfireriskreduction)



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## What is a shaded fuel break?

A shaded fuel break is a strategically planned forest modification (fuel mitigation) that creates a “defensible landscape,” reducing fire speed and intensity while helping suppression efforts by ground crews and air attack. The main goal of a shaded fuel break is to reduce surface and ladder fuels in a forest while providing shade to the forest floor in order to keep it cool and humid. This in turn can slow the progress or intensity of a wildfire. A well placed and well maintained shaded fuel break can help to reduce the wildfire risk to an adjacent community and other values and promote forest biodiversity.

## How does a shaded fuel break help firefighters?

A shaded fuel break can help firefighters gain an upper hand in fighting a wildfire. It allows crews to directly attack a lower intensity ground fire. A shaded fuel break also allows for greater success of air tanker drops, whether retardant or water, allowing more of the dropped material to land on the forest floor.

## Where does FireSmart fit into the Fuel Mitigation picture?

FireSmart is a set of guidelines that help a home owner reduce the risk of a wildfire spreading to their home. While fuel mitigation occurs in a broader area, surrounding homes, and communities FireSmart focuses on the area immediately surrounding a house or outbuilding. Applying FireSmart principals to your home is the most effective way to protect it from wildfire as no amount of fuel mitigation work can completely prevent a wildfire from threatening your home.

Do you have more questions? Visit [www.rdck.ca/wildfireriskreduction](http://www.rdck.ca/wildfireriskreduction)

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