

# GET FIRE SAFE AT THE INTERFACE

*Protect your home from vegetation fires*



WHAKARATONGA IWI

**FIRE  
EMERGENCY**

NEW ZEALAND



# Living at the Interface

Areas where homes and other structures meet forest, bush or scrubland are called property/vegetation interfaces. These are usually located in between rural and urban areas where the density of structures begins to lessen. These properties are at greater risk of fire due to the increased presence of vegetation and the greater distance from fire stations.

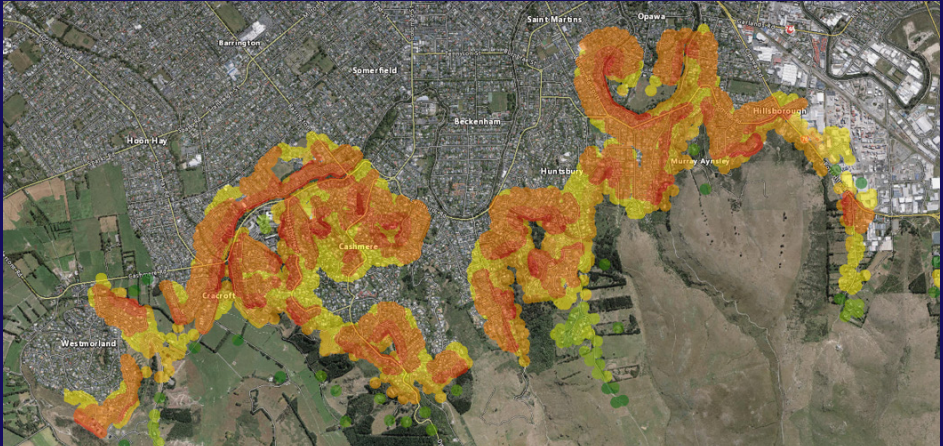
Between 2014 and 2018, 27 fires in interface areas have burned more than

2600 hectares of land, destroyed 37 homes and other structures. These fires had a major economic and human toll.

People living in high risk interface areas need to take this risk seriously and take steps to make their property Fire Safe. This guide will explain the most common fire risks for interface properties and provide you with ways to protect your home from fire.



# Port Hills fire case study



In 2017, there were wildfires in the Port Hills of Christchurch. Two separate vegetation fires several kilometres apart, started and combined into one large fire. Over the course of three days the fire burned nearly 5,000 acres, destroyed nine houses and damaged two others.

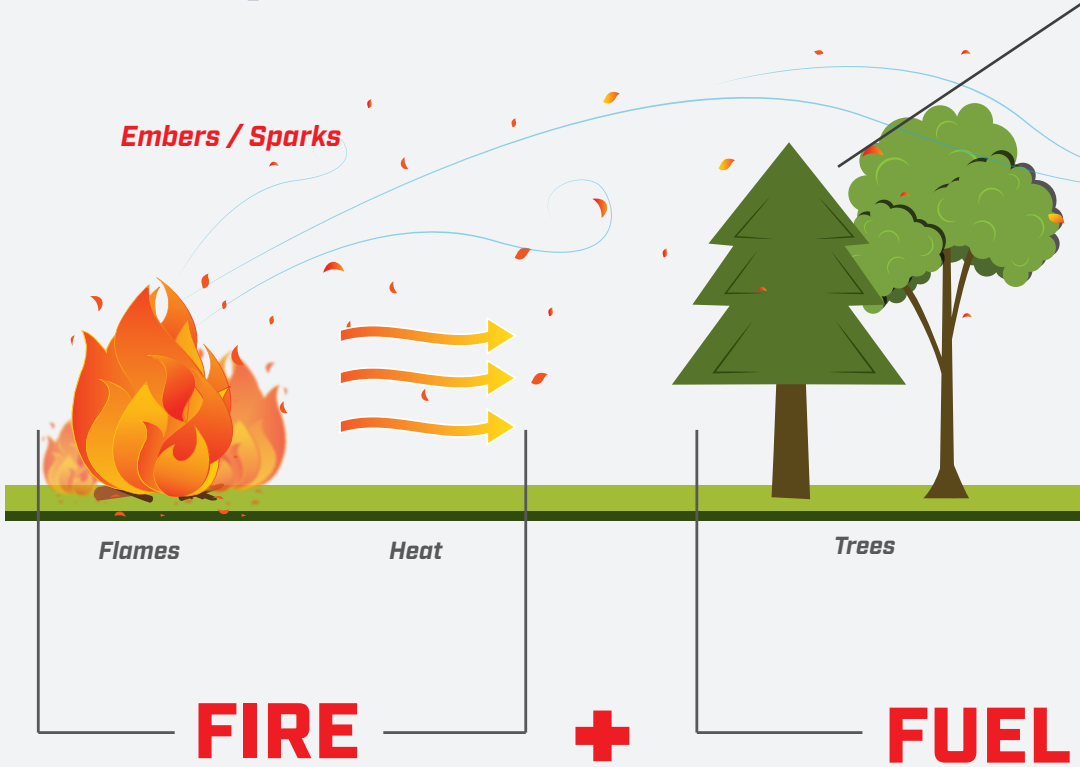
About 1,000 residents were evacuated over the course of the fire. The damage caused

by the fires was exacerbated by a power outage that also caused fire fighters to lose water access. The fire was officially declared extinguished after 66 days.

The map above shows the areas in the Port Hills where concentrations of homes and structures are near highly vegetated areas putting them at greater risk of fire. These types of areas occur across New Zealand.

“Over the course of three days the fire burned nearly 5,000 acres, destroyed nine houses and damaged two others.”

# How fires grow and spread



It's important to understand how fires grow and spread before you take steps to reduce the risks around your home. Embers can travel as far as two kilometres from a fire. Your greatest risk is that these embers reach your home and find ready fuels to ignite a fire.

“Embers can travel as far as two kilometres from a fire.”

### **Trees**

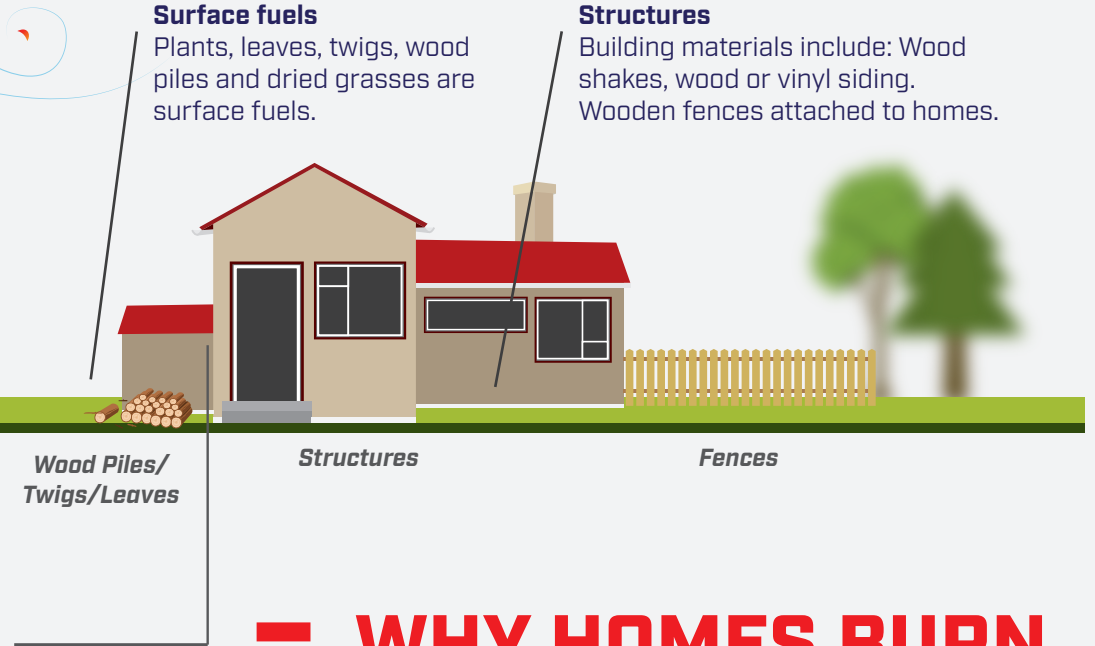
Conifers are highly flammable. Deciduous (leafy) trees are much less flammable.

### **Surface fuels**

Plants, leaves, twigs, wood piles and dried grasses are surface fuels.

### **Structures**

Building materials include: Wood shakes, wood or vinyl siding. Wooden fences attached to homes.

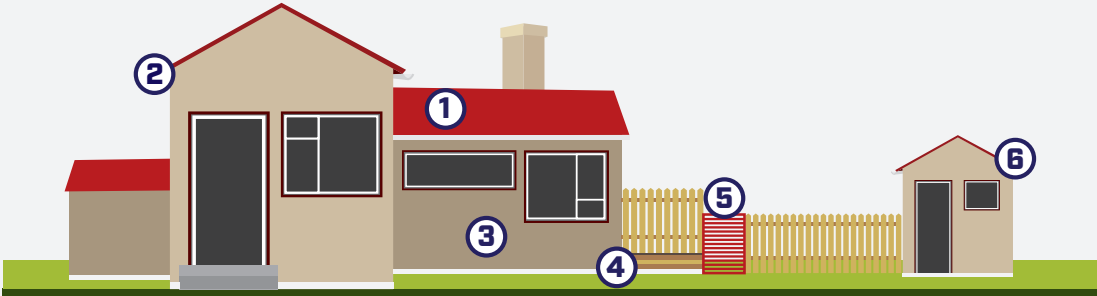


# **= WHY HOMES BURN**

### **Other risks you need to consider:**

- › Slope – fire travels faster uphill. Homes at the crest of a hill are at greater risk.
- › Dense bush or forest – fires spread quickly and directly from tree to tree and produce sparks and embers. Dense vegetation also produces fine fuels such as leaves, twigs and pine needles that easily ignite.

# How to create a safety zone



## Zone 1

### Home & Yard: 10 metres

This should be a fire-resistant zone, free of all materials that could easily ignite from a wildfire

*When looking at fire risks, start at your home and work your way out. The changes closest to your home will have the greatest impact.*

#### 1. Roof

Use fire-resistant material such as steel or tile.

#### 2. Spouting/gutters

Regularly clean and consider screening with metal mesh. Embers can easily ignite dry material that collect in gutters.

#### 3. Siding

Stucco metal siding, brick/concrete and fibre cement siding are more fire resistant than wood or vinyl siding.

“Fences can create a direct path from the fire to your house.”



## Zone 2

### Outer Yard: 10-30 metres

Thin and remove trees and scrub. Regularly remove fallen branches, dry grass, needles and pine cones to eliminate the hazard of surface fuels.

#### 4. Under the house and decks

enclose the base of the house, decks and balconies with fire-resistant material to reduce the risk of embers igniting your house.

#### 5. Fences

Fences can create a direct path from the fire to your house. Separate your house from a wooden fence with a metal gate to slow the advance of a fire. Cut the grass along the fence line to reduce fuel for a fire.

#### 6. Sheds and outbuildings

If these are within 10 metres of your house, give them the same Fire Safe considerations as you do your home.

#### 7. Firewood

Store firewood and other combustibles at least 10 metres from your house.

“You can minimise or reduce fire hazard around your home by using fire-resistant plants in your safety zones.”

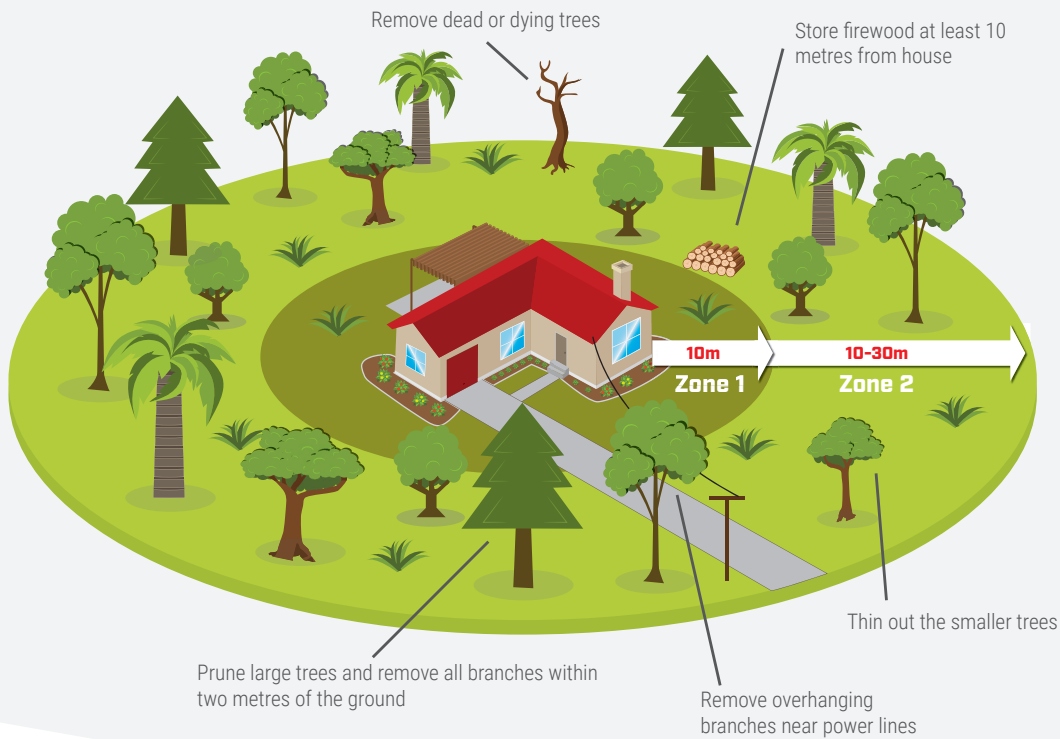
## ***Fire Safe Landscaping***

Your landscaping choices and maintenance practices have the greatest impact on protecting your home from fire.

Most homeowners want to create a landscape that complements their home and has variations in colour, texture, flowers and foliage. When selecting plants, you also should consider the flammability of plants, particularly if your home is located near a forest or dense bush.

You can minimise or reduce fire hazard around your home by using fire-resistant plants in your safety zones. Equally important is where you plant, how plants are spaced and ongoing maintenance. When done correctly, you can create a fuel break and help protect your home by blocking intense heat.





**Zone 1** is your most important line of defence and requires the most consideration. Zone 1 extends to 10 metres from your home where you should:

- use irrigated lawn and low-growing fire-resistant plants
- avoid tall trees close to the house and over power lines
- remove flammable debris like twigs and leaf litter from roof and around and under the house and decks
- keep the grass along fence lines short and remove dead plant material

**Zone two** extends from 10 to 30 metres of your home:

- remove scrub and dead or dying plants and trees
- thin excess trees and scrub
- evenly space remaining trees so the crowns are separated by 3-6 metres
- avoid highly flammable trees and shrubs
- prune branches up to two metres from the ground.

# Choose fire-resistant plants and trees

Fire-resistant plants aren't fireproof but they do not readily ignite. They typically have the following characteristics:

- › moist, supple leaves
- › little dead wood and dry, dead material doesn't accumulate within the plant
- › watery sap that doesn't have a strong odour
- › low levels of sap or resin.



Mableleaf (left) and Kapuka (above) are fire-resistant New Zealand native species.



Most deciduous trees and shrubs are fire-resistant. Some of these include:

- › poplar
- › birch
- › maple
- › willow.
- › ash

# Plants to avoid in the safety zone

Highly flammable plants can have the following characteristics:

- › contain fine, dry, or dead material with-in the plant, such as twigs, needles and leaves
- › leaves, twigs, and stems contain volatile waxes, terpenes or oils
- › aromatic leaves
- › sap is gummy, resinous and has a strong odour
- › loose or papery bark.



Eucalyptus (left) and kanuka (above) are highly flammable and should not be planted in the safety zone.



Conifers - trees with cones and needles - are highly flammable and should not be within 10 metres of your home. Other species to avoid in your safety zone include:

- › manuka
- › eucalyptus
- › kanuka
- › blue gum.

# *Neighbouring properties*

If nearby properties comprise part of your safety zone, talk with the owners about how you can work together to minimise your fire risks. Fire safety is a community concern that achieves better protection when everyone understands the risks and takes action. Your local fire station can help to explain these risks and assist your community with solutions.

If you're concerned that a neighbouring property poses a serious fire risk due to unmanaged vegetation - especially during times of extreme fire danger, contact Fire and Emergency for advice. Legal action can be taken to address serious, legitimate fire risks and Fire and Emergency can help by assessing the situation.

“Fire safety is a community concern that achieves better protection when everyone understands the risks and takes action.”





# Fire Safe checklist

## INSIDE YOUR HOME

- Photoelectric smoke alarms
- Fire extinguisher
- Sprinklers
- Prepare an escape plan from the house and from the property

## EXTERIOR OF YOUR HOME

- Non-combustible cladding and roofing
- Roof and spoutings are clean and free of flammable debris
- There is nothing flammable beneath the house
- Decks, trellises, fences and balconies are not flammable or not attached to house

## SAFETY ZONES

- Woodpile is at least 10 metres from your home
- Only lawn and low-growing fire-resistant plants are within 10 metres of your home
- Under house and deck are enclosed or kept free of leaves, twigs and other combustible material
- Trees and shrubs are well-spaced and not in contact with each other

## OTHER

- Fire trucks can access your property (4 metre wide by 4 metre high clearance)
- There is a ready water supply



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