Fire Ready Kit

Updated 2013

cfa.vic.gov.au

Everyone.

Everywhere.

Every day.

cfa.vic.gov.au

KNOW YOUR FIRE WEATHER DISTRICT

Mallee District
Buloke Shire
Gannawarra Shire
Mildura Rural City
Swan Hill Rural City
Yarriambiack Shire
(north of the netting fence)

Wimmera District
Hindmarsh Shire
Horsham Rural City
Northern Grampians Shire
West Wimmera Shire
Yarriambiack Shire
(south of the netting fence)

South West District
Ararat Rural City
Colac Otway Shire
Corangamite Shire
Glenelg Shire
Moyne Shire
Pyrenees Shire
Southern Grampians Shire
Warrnambool City

Northern Country District
Campaspe Shire
Greater Bendigo City
Greater Shepparton City
Loddon Shire
Moira Shire
Strathbogie Shire

North Central District
Central Goldfields Shire
Lake Mountain Alpine Resort
Mitchell Shire
Mount Alexander Shire
Murrindindi Shire

North East District
Alpine Shire
Benalla Rural City
Falls Creek Alpine Resort
Indigo Shire
Mansfield Shire
Mount Buller Alpine Resort
Mount Hotham Alpine Resort
Mount Stirling Alpine Resort
Towong Shire
Wangaratta Rural City
Wodonga City

Central District
Ballarat City
Banyule City
Bass Coast Shire
Bayside City
Boroondara City
Brimbank City
Cardinia Shire
Casey City
Darebin City
Frankston City
French Island
Glen Eira City
Golden Plains Shire
Greater Dandenong City
Greater Geelong City
Hepburn Shire
Hobsons Bay City
Hume City
Kingston City
Knox City
Macedon Ranges Shire
Manningham City
Maribyrnong City
Maroondah City
Melbourne City
Melton Shire
Monash City
Moonee Valley City
Moorabool Shire
Moreland City
Mornington Peninsula Shire
Nillumbik Shire
Port Phillip City
Queenscliffe Borough
Stonnington City
Surf Coast Shire
Whitehorse City
Whittlesea City
Wyndham City
Yarra City
Yarra Ranges Shire

West & South Gippsland District
Baw Baw Shire
Latrobe City
Mount Baw Baw Alpine Resort
South Gippsland Shire
Wellington Shire

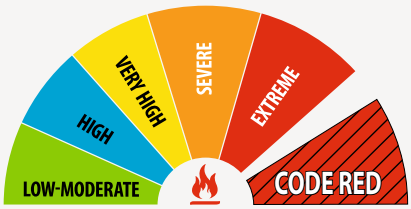
East Gippsland District
East Gippsland Shire

KNOW YOUR RESTRICTIONS

TOTAL FIRE BAN

Total Fire Bans tell you what you can and can't do to prevent a fire starting and what activities are banned. They are legal restrictions which if broken can be penalised with large fines and imprisonment.

KNOW YOUR DAILY FIRE DANGER RATING



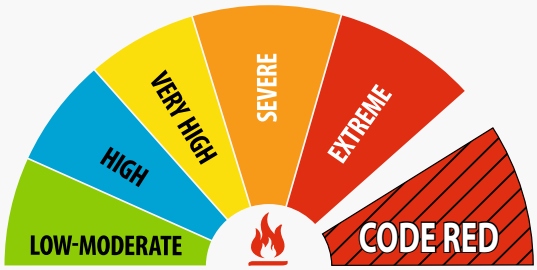
FIRE DANGER RATING

Fire Danger Ratings (FDR) tell you how dangerous a fire would be if one started – the higher the rating, the more dangerous the conditions. Check your district's rating every day during summer. The rating is your trigger to act.

CHECK THE SIGNS. KNOW WHEN TO GO.

cfa.vic.gov.au | Victorian Bushfire Information Line 1800 240 667

KNOW YOUR DAILY FIRE DANGER RATING



FIRE DANGER RATING

The Fire Danger Rating predicts fire behaviour (should a fire start) and how dangerous it would be to put out. The higher the rating, the more dangerous the conditions.

Fire Danger Ratings feature in weather forecasts during the fire season.

To check your district's daily Fire Danger Rating, visit **cfa.vic.gov.au** or call **1800 240 667**.

	WHAT DOES IT MEAN?	WHAT SHOULD I DO?
CODE RED	> These are the worst conditions for a bush or grassfire. > Homes are not designed or constructed to withstand fires in these conditions. > The safest place to be is away from high-risk bushfire areas.	> Leaving high-risk bushfire areas the night before or early in the day is your safest option – do not wait and see. > Avoid forested areas, thick bush or long, dry grass. > Know your trigger – make a decision about: – when you will leave – where you will go – how you will get there – when you will return – what you will do if you cannot leave.
EXTREME	> Expect extremely hot, dry and windy conditions. > If a fire starts and takes hold, it will be uncontrollable, unpredictable and fast moving. Spot fires will start, move quickly and come from many directions. > Homes that are situated and constructed or modified to withstand a bushfire, that are well prepared and actively defended, may provide safety. > You must be physically and mentally prepared to defend in these conditions.	> Consider staying with your property only if you are prepared to the highest level. This means your home needs to be situated and constructed or modified to withstand a bushfire, you are well prepared and you can actively defend your home if a fire starts. > If you are not prepared to the highest level, leaving high-risk bushfire areas early in the day is your safest option. > Be aware of local conditions. Seek information by listening to ABC local radio, commercial and designated community radio stations, or watch Sky News TV, visit cfa.vic.gov.au, call the Victorian Bushfire Information Line on 1800 240 667 or via National Relay Service on 1800 555 677.
SEVERE	> Expect hot, dry and possibly windy conditions. > If a fire starts and takes hold, it may be uncontrollable. > Well-prepared homes that are actively defended can provide safety. > You must be physically and mentally prepared to defend in these conditions.	> Well-prepared homes that are actively defended can provide safety – check your Bushfire Survival Plan. > If you are not prepared, leaving bushfire-prone areas early in the day is your safest option. > Be aware of local conditions. Seek information by listening to ABC local radio, commercial and designated community radio stations, or watch Sky News TV, visit cfa.vic.gov.au, call the Victorian Bushfire Information Line on 1800 240 667 or via National Relay Service on 1800 555 677.
VERY HIGH **HIGH** **LOW-MODERATE**	> If a fire starts, it can most likely be controlled in these conditions. > Be aware of how fires can start and minimise the risk. > Controlled burning off may occur in these conditions if it is safe – check to see if permits apply.	> Check your Bushfire Survival Plan. > Monitor conditions. > Action may be needed. > Leave if necessary.

Foreword

Bushfires and grassfires pose a significant threat to all those living, working or travelling in Victoria. Preparation and planning can save you and your family from being killed by fire.

CFA – as always – will do everything we can to protect lives and property. But there is only so much we can do. There will never be enough firefighters, fire trucks and firefighting aircraft to have these resources at everyone's back door during a large bushfire.

The responsibility for surviving the fire season is shared between emergency services and the community. We all – including you – share the responsibility for our community's safety.

That's why we have developed and updated this *Fire Ready Kit*. It is an important resource. It will help you plan for survival, beginning with the basics of preparing before the fire season, through to planning what to do if fire is in your area and you cannot leave.

There is a new section on 'What you need to do to stay informed', including where to find warnings and updates, and the actions you need to take when fire is in your area.

Above all, this Kit provides a step-by-step guide to leaving early – from writing down your leave early plan before the fire season, to acting on it on a high-risk day. The decision about when to leave may be the most important decision you make during the fire season – quite literally, your life and the safety of your family may depend on your decision.

You are not alone in your preparations. Advice and support are available with details provided throughout this Kit. Draw on these resources to make this fire season a safe one.

Euan Ferguson AFSM
Chief Officer

CFA makes this information available on the understanding that you take reasonable care when using it. If you have any uncertainty about the application of the information to your particular circumstances, you should obtain further professional advice:

CFA does not accept responsibility for how you apply, or rely on the information in this publication.

FRK 10/2013

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Introduction
Am I at Risk?

The information in this booklet is for people living in high-risk bushfire or grassfire areas of Victoria. It is designed to help you understand your risk, know the basics of how fire behaves and think about what you might do on fire risk days. Having this know-how is an important first step to being well prepared.

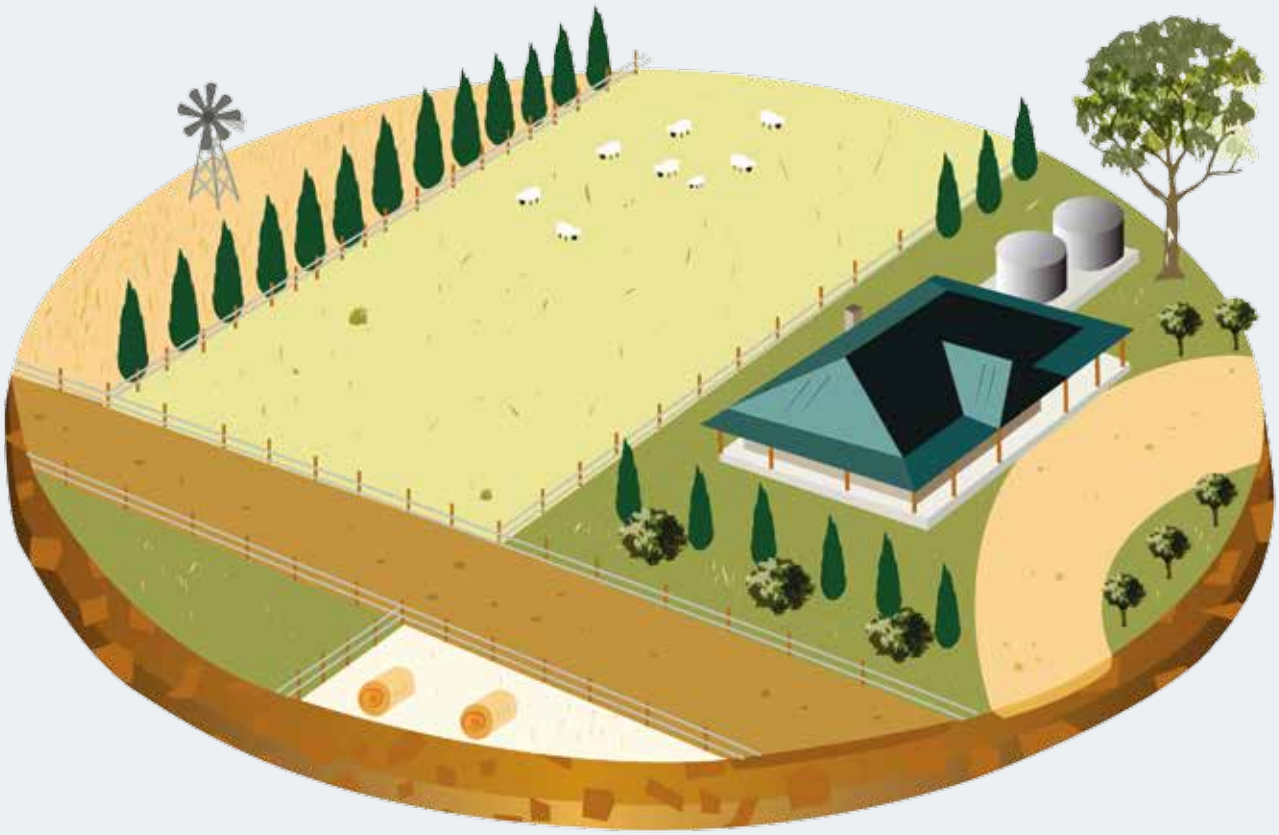
If you live in one of these environments, you need to plan and prepare before the fire season.

- A Close to or among grass or paddocks
- B Close to or among dense or open bush
- C Near coastal scrub
- D Where suburbs meet the bush or grasslands

Close to or among grass or paddocks

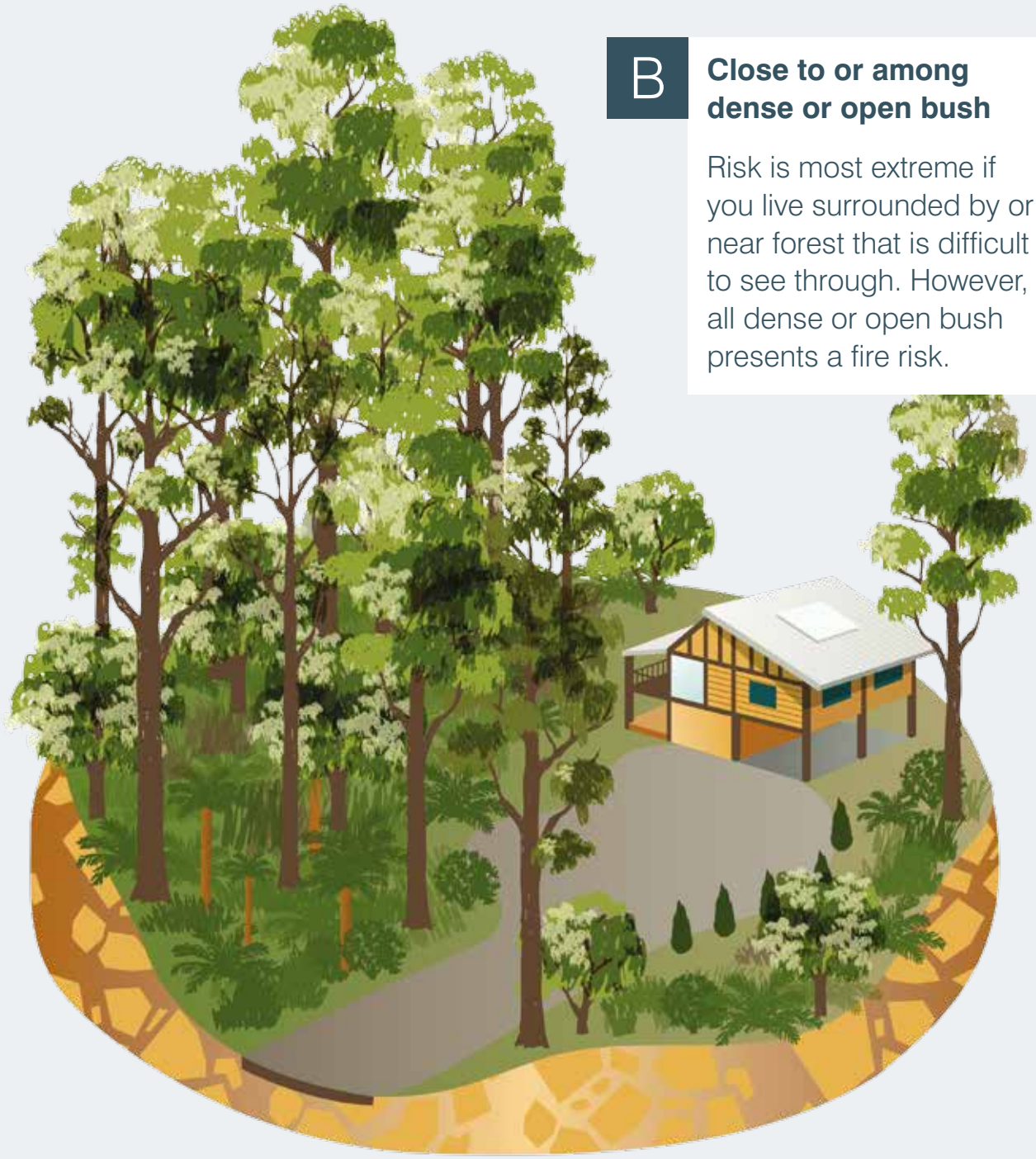
A

Grassfires can be extremely dangerous – people can die in grassfires.



What can you expect?

- Dry and brown grass that easily catches fire.
- Grass more than 10 centimetres tall will have a higher flame height and intensity.
- Faster burning fires than through forests as grass is a finer fuel.
- Large amounts of radiant heat.
- Fires that can start early in the day.
- Fires that can surge up to 25 kilometres per hour at times.



B Close to or among dense or open bush

Risk is most extreme if you live surrounded by or near forest that is difficult to see through. However, all dense or open bush presents a fire risk.

What can you expect?

- ☑ Very hot fires and many embers.
- ☑ Embers such as twigs, bark and debris from far away.
- ☑ Dangerous levels of radiant heat and fire intensity.
- ☑ Trees falling in high winds.
- ☑ Embers landing a long time after the fire has passed.
- ☑ Fine fuels (the thickness of a pencil or less) that burn very quickly.
- ☑ Heavy fuels that will burn very hot for a long time.
- ☑ A reduction in visibility due to very thick smoke.

Near coastal scrub

C

Burning scrub, heath or other coastal vegetation can create hot, dangerous bushfires. If you live by, work by or travel to the coast you are at risk. Beaches, foreshores and shallow waters may not be safe or protect you from radiant heat. A fire may be burning between you and the beach.

What can you expect?

- ☑ Very hot and fast-moving fires.
- ☑ Gusty ocean winds causing fire to behave erratically.
- ☑ A lot of embers.
- ☑ Fire reaching houses quickly.
- ☑ Congested coastal roads.

D

Where suburbs meet the bush or grasslands

You do not have to live in the bush to be at risk of bushfire. Suburban homes can burn in bushfire too.

What can you expect?

- ☑ Scrub, forest and grass catching fire.
- ☑ A fire in a park or reserve quickly spreading to timber fences and gardens.
- ☑ Fire spreading from house to house.
- ☑ A high risk of ember attack if the house is near dense bushland.
- ☑ Embers falling close to or on your house which can start a new fire.
- ☑ Strong winds that bring embers from far away.

Notes:

1

Section One
Your Bushfire Plan: the Basics

Section One
Your Bushfire Plan: the Basics

Do I need a plan?

You don't have to live in the country to be at risk of fire. Fires can occur where the suburbs meet the bush or in urban areas where houses have grass, bushland or parkland around them.

If you live near areas that have significant amounts of bush, forest, long grass, or coastal scrub, then you need to plan ahead for the fire season.

Victoria is one of the most fire-prone areas in the world and it is inevitable that fires will occur every year in parts of the state. Fire – by its very nature – is unpredictable and difficult to control especially on hot, dry, windy days. On these days, a fire may start near you.

Not everyone thinks clearly in an emergency. A written, and preferably well-practised plan, will help you remember what needs to be done during a crisis.

What leaving early means

'Leaving early' means being away from high-risk areas before there are any signs of fire.

In other words, leaving early is a precaution you take *just in case* there is a fire – because in some conditions, any fire that starts is likely to be uncontrollable.

Leaving early does not mean waiting for a warning or a siren. It does not mean waiting to see or smell smoke. And it certainly does not mean waiting for a knock on the door.

Why you should leave early

Because fires can start and spread very quickly in some conditions, leaving early is by far the safest option for anyone in a high-risk bushfire area. Many people have died trying to leave their homes at the last minute.

Even a fire that is kilometres away could be at your door in minutes. In certain conditions, embers can travel many kilometres in front of a fire and a grassfire can travel faster than you can run. Wind changes are unpredictable and can rapidly change the direction or size of a fire.

Driving in a bushfire is extremely dangerous, and potentially life threatening. A drive that would normally take five minutes could take two hours. Road closures, traffic jams, collisions, smoke, fallen trees and embers are all real possibilities.

In a bushfire, people may be confused, disoriented and physically or psychologically stressed. In these conditions, making good decisions becomes very difficult.

The *Defending Your Property* section of this booklet can help you decide whether or not you are capable of defending your property – and tells you about the risks and preparations involved.

DEFENDING YOUR PROPERTY

Planning to stay and defend is a big decision. Defending a home requires at least two fit and determined adults, at least 10,000 litres of water and appropriate firefighting hoses and pumps.

For some, defending a property is a back-up option (if they are trapped by fire). Others will plan to leave early on some days and stay and defend on others, linking their decisions to the Fire Danger Ratings. For many others, staying to defend is not an option under any circumstances.

Most homes in high-risk bushfire areas are not defendable on Code Red days.

When you should leave

The decision about when to leave is the most important decision you will make.

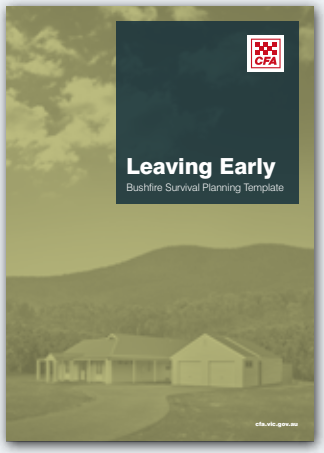
You will need to carefully read the information about Fire Danger Ratings earlier in this booklet and consider your household's level of risk. The Fire Danger Rating should be your trigger to enact your plan.

It is also important to recognise that fires can start and spread on any day during summer, but also during spring and autumn. It's up to you to monitor warnings and stay aware of your surroundings – for instance, emergency services sirens or the smell of smoke in the air – right through the fire season.

IMPORTANT NOTE Do not expect a fire truck at your property during a bushfire.

Do not rely on a warning. It is your responsibility to know when to leave.

How to plan



Just as every family or household is unique, every fire plan will be different. There are many ways you can go about your planning – but the information and templates in this booklet are designed to put you on the right track.

At an absolute minimum, talk through the ten decisions below with your household. Review these points before each fire season and don't put it off until later.

Before the fire season

REMEMBER...

to decide who will do what as part of your plan.

Key decisions to make with your family

1. Which Fire Danger Rating is your trigger to leave?
2. Will you leave early that morning or the night before?
3. Where will you go?
4. What route will you take – and what is your alternative in the event that a fire is already in the area?
5. What will you take with you?
6. What do you need to organise for your pets or livestock?
7. Who do you need to keep informed of your movements?
8. Is there anyone outside your household who you need to help or check up on?
9. How will you stay informed about warnings and updates?
10. What will you do if there is a fire in the area and you cannot leave?

Your destination and journey

It's up to you to decide on a suitable place to go when you leave early on a fire risk day. If you do not have friends or relatives in low-risk areas who you can visit, consider community facilities such as libraries, shopping centres, swimming pools or cinemas.

If you don't have a car you will need to plan carefully to organise transport.

Why write down your plan?

Would you remember a plan that's just in your head if you're surrounded by smoke, heat and flames?

A written plan will take the pressure off you, and avoid arguments and delays.

In Victoria the bushfire season is long, and a written plan will help reduce uncertainty and anxiety. Having a written plan will reduce the stress and disruption to your family routine on every occasion you need to leave early – even if there is no fire.

Use the tear-out template included in this booklet to help you write down your plan.

REMEMBER: Any bushfire plan – written or not – is better than no plan.

EXPECT THE UNEXPECTED

Bushfires can start at any time and your plan needs to take into account the unexpected. For instance, what if you have teenage children home alone, children at a friend's place or you don't have access to the family car? Can you incorporate these different situations into your plan?

Talk to neighbours, family and friends about different scenarios and how you could help each other – simple things like exchanging contact numbers can make all the difference.

Practical checklist – ensure you're ready

Take care of simple, practical actions before the fire season so you are ready to leave or seek shelter quickly, calmly and safely.

1. Pack an Emergency Kit with essential items and keep it in a handy place.
2. Scan important documents and photos onto a memory stick.
3. Purchase a battery-operated radio, powerful torch and extra batteries.
4. Save important contact numbers in your mobile phone. Include family, friends and the Victorian Bushfire Information Line. Have a spare mobile phone that you keep fully charged for emergencies.
5. Set aside protective clothing (long-sleeved, made from natural material like cotton) for each member of the family. Put woollen blankets in your car.
6. Practise packing your car so you know how long it will take.
7. Mark your primary routes, alternative routes and petrol stations on hard copy maps.
8. Make firm arrangements with anyone you plan to visit when you leave early.
9. Talk to neighbours or nearby friends about how you might help each other.
10. Don't forget pets and horses – include pet transport containers in your Emergency Kit. Know where you can move your horses to if they won't be safe on your property.

Your Emergency Kit

SHARE YOUR BUSHFIRE PLAN

Once you have prepared your plan, it is a good idea to share the details of your plan with family, friends and neighbours. Doing so will save them a lot of distress when there is a bushfire, as they will know that you are prepared and where to find you.

PETS

Remember to prepare for your pets as well. Make sure your pet is wearing an identification tag and add the following items to your Emergency Kit:

- suitable transport carriers or leash
- any medications
- dietary supplements
- food and drinking water
- a familiar item (toy, bed, treats) to help reduce stress.

Section Two
On Fire Risk Days: Leaving Early

2

Section Two
On Fire Risk Days: Leaving Early

Check the Fire Danger Rating (FDR) for your location every day. When the FDR reaches your trigger point, you need to activate your plan.

Follow the advice on when to go for each FDR and start preparing to leave based on the steps in your plan.

Depending on the conditions, you will need to move quickly and efficiently if a fire starts near you. Make sure you include the 'Getting ready to go' steps in your plan. Make a point of practicing them so you know how long each step will take. Doing all of these things could take hours.

DON'T WAIT AND SEE

You should never wait and see what happens during a bush fire. Leaving late means you will be on the road when conditions are at their most dangerous or you may not be able to get out at all. The longer you wait to leave, the greater the risk to your life.

Getting ready to go

- Stay updated on fire information so you will know if a fire has started near you.
- Move livestock to a safe area and put your pets in a safe place ready for loading in the car.
- Pack personal items such as a change of clothing for each person and toys for children and pets and put them in the car.
- If your car is behind an electric garage door, take it out of the garage and position it in the driveway facing out or on the side of the road.
- Remove any materials that could burn easily from around your house, on decks, verandahs and pergola areas. This includes mats, outdoor furniture and wood piles.

Moving your pets

In the event of a fire, emergency accommodation at animal shelters and boarding facilities may not be available. Pets that are normally well behaved may also become fearful and nervous during an emergency. Part of your plan should involve prearranging with friends, relatives or others in a low fire danger area to care for your pets on fire risk days.

If you have to go to work on days of fire danger, consider taking your animals to a safer place before leaving home. Keep in mind that in the event of an emergency you may not be allowed home for some time.

Before you leave

1. Add final items to your Emergency Kit such as medications, prescriptions, mobile phone chargers, pet food and water for everyone.
2. Pack the car, remembering your most important items such as wallet, cards, keys, banking, medical and insurance documents (these should be easily accessible on a USB stick or in an expanding file).
3. Turn off the gas supply.
4. Block the downpipes and partially fill the gutters with water, if time permits.
5. Make sure everyone is wearing protective clothing – long pants, long-sleeved shirts and sturdy shoes such as leather boots. Clothes should be loose fitting and made from natural fibres like pure wool, heavy cotton drill or denim. Do not wear synthetics.
6. Tell people you are leaving.
7. Close all doors and windows and lock doors.
8. Leave the front or access gate open.

HORSES

If you do not have a suitable paddock or clear area in which to put your horses, consider taking them to the local showgrounds, sale yards, racetrack or pony club.

If leaving horses on your property, do not lock your horses in a stable or small area, or let them out onto the road. Instead, put your horses or livestock in a large, well-grazed paddock, or series of smaller paddocks with the internal gates left open. Remove rugs, halters and fly veils.

People die during fires trying to save their animals. Decide in advance what you'll do with your pets and livestock. Animals should never be left unattended in vehicles.

Notes:

Section Three 3

During a Fire: If You Cannot Leave

Section Three
During a Fire: If You Cannot Leave

As part of your plan, you need to decide what you will do if there is a fire in your area and you cannot leave. Remember that bushfires and grassfires can travel extremely fast and strike without warning. Many people have been caught out thinking they had more time to act before the bushfire impacted.

A bushfire can be a terrifying situation. Strong gusty winds and intense heat will make you tired quickly. Thick, heavy smoke will sting your eyes. It will be difficult to see and breathe. The roaring sound of the wind and the fire approaching will make it hard to hear. Embers will rain down causing spot fires all around you. Power and water may be cut off. You may be isolated. It will be dark, noisy and extremely physically and mentally exhausting.

Understanding what to expect and planning for what you will do can help you to cope.

The main cause of death in bushfires is radiant heat, so it is important to take shelter as the temperature associated with the fire rises.

DO NOT shelter in a dam, swimming pool, or a water tank except as an absolute last resort. Dams, swimming pools and water tanks leave your face, head and lungs exposed to radiant heat and smoke.

If sheltering within a house or a building, **DO NOT** get caught in an area with only one way out – for instance, a bathroom or a toilet. Rooms with only one exit can make escape impossible if that exit is blocked by flames and heat.

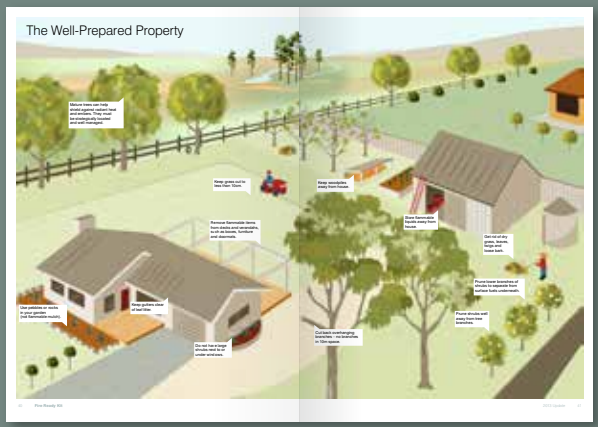
Know your shelter options

The options below do not guarantee your safety but may offer enough protection from radiant heat to ensure your survival.

WHAT IS A WELL-PREPARED HOME?

Even if you plan to leave early, you can reduce the impact of bushfire on your home by preparing your property.

Read the *Preparing Your Property* section of this booklet for more information about preparing your home before the fire season.



A well-prepared home – the preferred option if you cannot leave

- A well-prepared home (yours or a neighbour) that you can actively defend
- A private bunker (that meets current regulations)
- A designated community shelter or fire refuge.

Last resort – when no other preferred options are available

- A Neighbourhood Safer Place – Place of Last Resort
- A stationary car in a cleared area
- A ploughed paddock or reserve
- A body of water (such as a beach, swimming pool, dam or river).

Neighbourhood Safer Places do not offer any food, drink, supplies or facilities and are not relief centres. Many are simply open reserves or sports fields. To find out if there is one in your town, visit **saferplaces.cfa.vic.gov.au**

Understand radiant heat

Radiant heat is the intense heat that radiates from a bushfire. It is like the heat you feel from a campfire, but can be up to 50,000 times stronger. In the right conditions, radiant heat can ignite exposed surfaces and crack or break windows.

Radiant heat is the biggest killer in a fire. The human body cannot absorb large amounts of radiant heat without its cooling system failing, leading to heat exhaustion and heart failure.

Radiant heat can be blocked by a solid object or barrier such as a concrete wall or building. This heat travels in straight lines, radiating out from a bushfire ahead of the flames and will bounce off solid objects, although it will travel through glass.

If you are caught outside in a fire, seek to protect yourself by:

- covering up exposed skin.
- being as far away as you can – by doubling your distance from the fire you reduce the radiant heat load by four.
- getting behind a solid object or barrier.
- staying away from windows as radiant heat can pass through glass.

The only sure way to survive a bushfire and avoid radiant heat is to leave early and be away from the threat.

Cover up

Covering all exposed skin with clothing can offer some protection from radiant heat.

Have a set of clothing ready for each member of the family:

Your kit

- A A wide-brimmed hat to protect your head.
- B Eye protection such as smoke goggles to shield your eyes.
- C A ‘P2’ type mask or cotton scarf/ handkerchief for face protection and to filter smoke.
- D A long-sleeved, collared shirt and long pants made from cotton or some other natural fibre.
- E Tough leather garden gloves – not rubber or synthetic.
- F Sturdy boots and wool or cotton socks.

Put these on as soon as you are aware of a fire.

Wearing a t-shirt, shorts and thongs will expose you to dangerous radiant heat in a fire.

Sheltering from fire

If you are caught in a building

If sheltering in a building during a bushfire, make sure you have more than one point of exit in every room used as a shelter. Most bathrooms are unsuitable to shelter in. They typically have only one door which can make escape impossible if that exit is blocked by flames and heat. Any place of shelter within a house or building should have two points of exit.

Most bathrooms also have frosted windows that do not let you see outside – during a bushfire it is critical to look outside and know what is happening.

If your house catches fire while you are inside, you will need to respond quickly:

- Close the door to the room that is on fire.
- Move to the other end of the house, closing all the doors behind you.
- Do not get trapped in a room without an alternative exit.
- Move outside to burnt ground as soon as you can.
- Wherever possible, try to put a solid object between you and the radiant heat from the fire.
- Drink water to prevent dehydration.

EXPECT DISRUPTIONS TO SERVICES

Disruptions to telephone service, internet and mains power and water are common during a fire or on a fire risk day. Be prepared:

- Don't rely on mains power and water.
  - Power failure will impact you and your use of:
    - cordless phones.
    - remote control garage doors, electric gates or similar devices.
    - computer and the internet.
    - air conditioners and coolers.
    - electric pumps.
- Don't rely on one source of information for warnings. Use multiple sources.

If you are caught in a car

Take the following actions if you encounter smoke or flames and are not able to turn around and drive to safety.

1) Position the car to minimise exposure to radiant heat:

- Park away from dense bush – try to find a clearing.
- If possible, park behind a barrier such as a wall or rocky outcrop.
- The car should ideally face towards the oncoming fire front.
- Park off the roadway and turn hazard lights on. Car crashes are common in bushfires due to poor visibility.

2) To increase your chances of survival:

- Stay in the car and tightly close windows and doors.
- Cover up with woollen blankets and get down below window level – you need to protect yourself from radiant heat which will pass through glass.
- Drink water to prevent dehydration.

3) As soon as you become aware that the fire front is close by:

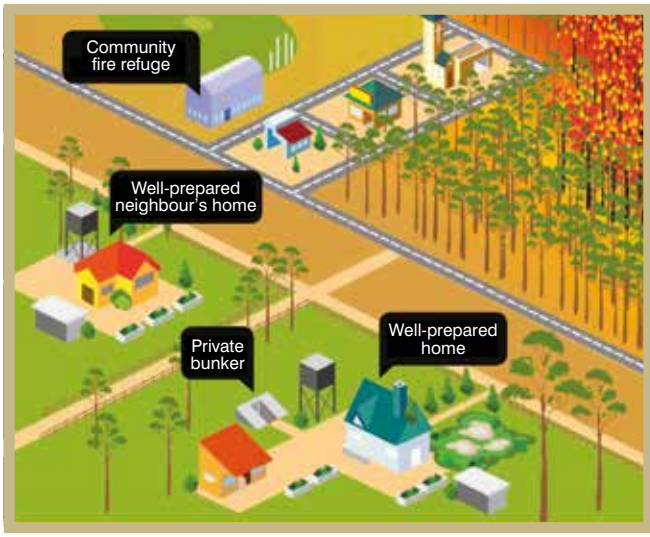
- Shut all vents and turn the air conditioning off to limit the circulation of toxic fumes caused by burning plastic.
- Turn off the engine.

Bushfire survival options

Leave Early

- When the Fire Danger Rating is **Code Red**, leaving early is always the safest option.
- Leave early destinations could include homes of family and friends who live outside the risk area, a nearby town or other built-up area.

Always the safest option

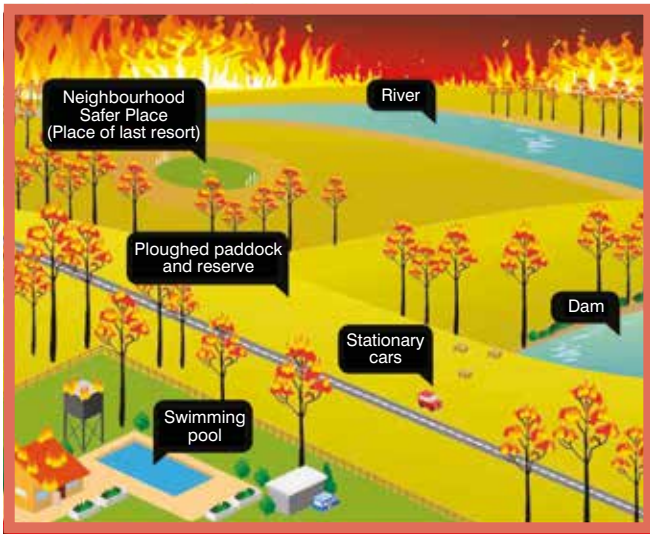


Well Prepared

If leaving the high-risk area is no longer an option, there may be options close to where you are that could protect you. These include:

- a well-prepared home (yours or your neighbour's) that you can actively defend on **Severe** and **Extreme** Fire Danger Rating days only
- private bushfire shelter (bunker) that meets current regulations
- designated community fire refuge.

Your safety is not guaranteed



Last Resort

In situations where no other options are available, taking shelter in one of the below may protect you from radiant heat:

- Neighbourhood Safer Place (Place of Last Resort)
- stationary car in a clear area
- ploughed paddock or reserve
- body of water (i.e. beach, swimming pool, dam, river etc).

High risk of trauma, injury or death.

Notes:

Section Four
Staying Informed

4

Section Four
Staying Informed

During the fire season, it's up to you to stay informed.

Make it your habit to:

› check your district's Fire Danger Rating (FDR) every day during the fire season
› know if it is a Total Fire Ban day
› check for warnings, especially on hot, dry windy days.

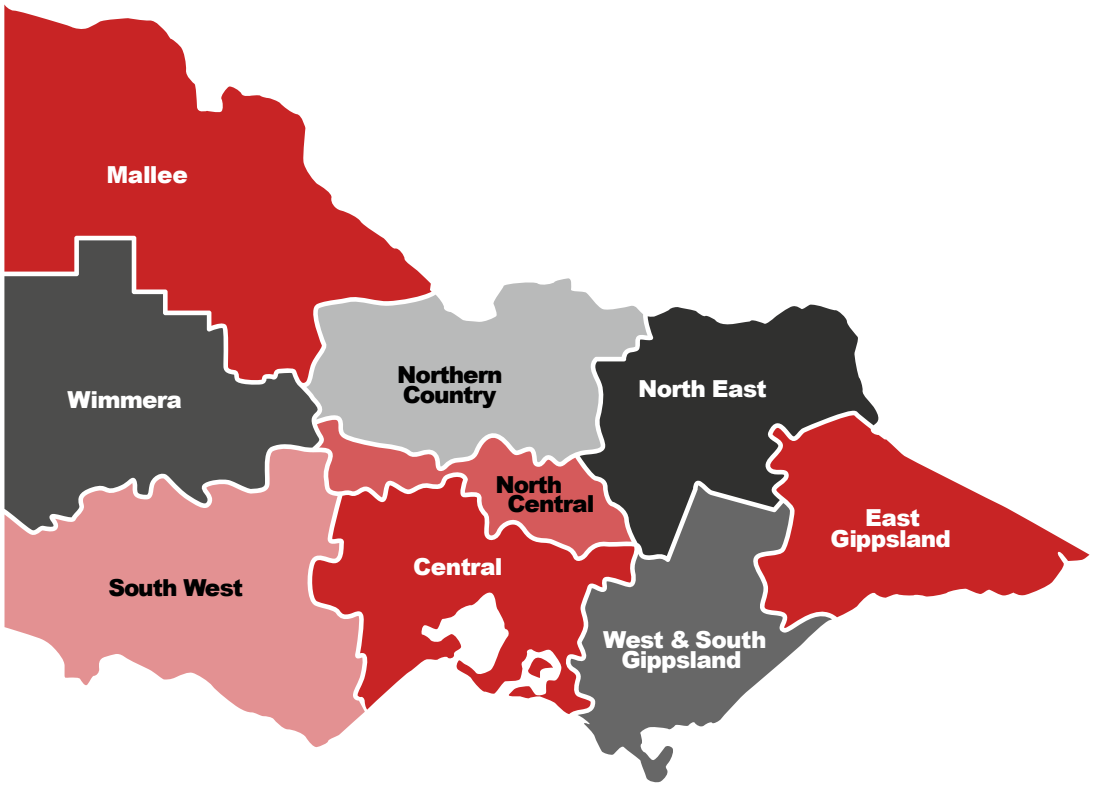
For updates on FDRs, restrictions and warnings, visit CFA's website or Twitter account, or call the Victorian Bushfire Information Line on 1800 240 667.

The meaning of and difference between Fire Weather Districts, Fire Danger Ratings and Total Fire Bans is explained in the illustration at the start of this Kit.

WHERE ARE YOU TODAY IN VICTORIA?

Fire Danger Ratings and Total Fire Bans are declared by district. There are nine districts in Victoria and you need to know which district you are in or travelling to. Check the fire weather district whenever you are travelling away from home.

KNOW YOUR FIRE WEATHER DISTRICT



Fire Danger Ratings

Fire Danger Ratings tell you how dangerous a fire would be if one started – the higher the rating, the more dangerous the conditions.

Fire Danger Ratings are not a weather forecast. Ratings are issued using Bureau of Meteorology data for up to four days in advance, based on weather and other environmental conditions such as fuel load.

The rating should be your trigger to act. For more information about what each rating means and what you should do, see the Fire Danger Ratings table earlier in this Kit.

Total Fire Bans

Certain activities are banned on Total Fire Ban days. If you break these restrictions you can face large fines and imprisonment.

Total Fire Bans are declared by CFA on days when fires are likely to spread rapidly and be difficult to control.

As Total Fire Bans provide a set of legal restrictions on what activities can or cannot occur in a particular district for that day, they are usually not declared until the afternoon before to ensure they are based on the most accurate weather forecast.

WHAT'S THE DIFFERENCE?

Fire Danger Ratings tell you how dangerous a fire would be if one started.

Total Fire Bans tell you what you can or can't do on days where fire will spread rapidly and be out of control.

Warnings tell you that a fire has already started.

Check the FireReady App for up-to-date Fire Danger Rating and Total Fire Ban information, as well as information, warnings and locations about current fires.

Download the App free for Apple and Android devices.

Fire Ready

Warnings and updates

Warnings are issued when a fire has started and you need to take action.

It's your responsibility to understand the different types of warnings and how to access them. You should never wait to receive an official warning before you leave. Bushfires can start, spread and become uncontrollable quickly.

How are warnings different from Fire Danger Ratings?

Fire Danger Ratings indicate how dangerous a fire would be if one started. Warnings are information about fires that have already started.

Levels of warnings

There are three different levels of warnings – **Advice, Watch and Act** and **Emergency Warning**. Don't expect warnings to be issued in any particular order. The first warning issued could even be an Emergency Warning.

ADVICE

There is a fire in your local area. You need to get information and monitor conditions.

WATCH AND ACT

Fire is heading toward you. Conditions are changing and you need to start taking action now to protect yourself.

EMERGENCY WARNING

You are in immediate danger and need to act now. You will be impacted by fire.

Where to find warnings and information

Do not rely on one source of information for fire information.

Listen to ABC Local Radio, commercial and designated community radio stations and watch Sky News TV.

1800 240 667

The Victorian Bushfire Information Line (VBIL) is a freecall.

Social Media outlets:
Twitter **@CFA_Updates** and
facebook.com/cfavic

1800 555 677

Callers who are deaf, hard of hearing, or have a speech/ communication impairment can contact VBIL via the National Relay Service on this number.

CFA website: **cfa.vic.gov.au**
DEPI website: **depi.vic.gov.au**
MFB website: **mfb.vic.gov.au**

131 450

If you do not speak English, call the Translating and Interpreting Service for translated information from VBIL. If you know someone who cannot speak English, provide them with this number.

IN SOME CIRCUMSTANCES

You may receive an SMS to your mobile.

You may receive a call to your landline phone.

Emergency Alert is a system used by emergency services to send voice messages to landlines and text messages to mobile phones about emergencies. For more information, go to **emergencyalert.gov.au**

Keep a map of your local area in an easy-to-find place. Use the map to locate where fires may be in your surrounding area.

If you are travelling through Victoria, you need to monitor conditions. Reconsider visiting high-risk bushfire areas on fire risk days.

CAUTION

Do not rely on an official warning to leave. Bushfires can start quickly and threaten homes and lives within minutes.

If you receive a warning, you must take it seriously. Failure to take action may result in death or injury to you or your family members.

Look and listen for information for surrounding towns as your suburb or town may not be mentioned.

Other information you might receive

RECOMMENDATION TO EVACUATE

A recommendation to Evacuate is issued in some situations. You should not rely on receiving one.

Evacuation is not a substitute for planning ahead or choosing to leave a high-risk bushfire area early before fire threatens.

In high-risk bushfire areas on **Code Red** days, it is always safer to leave the night before or early in the morning.

Recommendation to Evacuate

Evacuation is the planned relocation of people from a dangerous area to a safer place.

In some fires the emergency services may decide to issue a Recommendation to Evacuate for:

- individuals
- a house
- a street
- a large institution (such as a school or hospital)
- a suburb
- a town
- a large area of the state.

A Recommendation to Evacuate depends on a number of factors, such as:

- safety considerations
- the location and type of fire
- access routes and the local environment.

A Recommendation to Evacuate may identify:

- the location you need to travel to
- travel information
- the length of time during which it is safe to travel.

For further information, go to **police.vic.gov.au**

Sometimes it is not possible for the emergency services to issue a Recommendation to Evacuate. You should not rely on receiving one.

While CFA will do its best to provide official warnings, fires can threaten lives and homes in minutes.

The safest option is to leave early.

Standard Emergency Warning Signal (SEWS)

This is a distinctive siren sound that is transmitted over the radio, TV or phone prior to the alert message being broadcast. Designed to attract your attention, the sound tells you that important emergency information will follow.

All Clear

Emergency activity in the area has subsided and is no longer a danger to you.

Community alert sirens

A number of towns across Victoria are trialling the use of sirens to alert communities that there is an emergency in the area. For more information about this policy and the location of sirens, go to **firecommissioner.vic.gov.au/policies**

How and why will a siren sound?

Short (up to 90 seconds) – indicates a CFA brigade has responded to an emergency incident nearby.

Extended (up to 5 minutes) – indicates that a current emergency has been identified nearby and you must seek further information immediately from CFA's website, VBIL, or local emergency broadcasters.

Know your local emergency broadcaster

These include:

- ABC local radio
- SKY NEWS TV
- UGFM – Radio Murrindindi
- Stereo 974
- Plenty Valley FM
- Various commercial stations across Victoria

You can find a complete list at **firecommissioner.vic.gov.au**

When to look for warnings

There are different situations when you might need to monitor and check for fire warnings and updates.

If you see flames or a column of smoke, always call Triple Zero 000 immediately.

WHEN	WHY
It's a hot, dry, windy day	Fires can start suddenly at any time. During summer, check regularly for updates.
It's a fire risk day. You have left early, or are preparing to do so.	Ensure the route you have planned is safe. Stay up to date about fires in your area. Know when it is safe to return.
I can see or smell smoke in the air and I want to check what is going on.	Check to see if there are signs of a fire in your area.
I'm staying to defend on a fire risk day.	It is critical that you know at the earliest possible stage if a fire is in your area so that you can implement your plan. Once you are aware of a fire, continue to monitor updates.

Notes:

Section Five
Preparing Your Property

5

Section Five
Preparing Your Property

This section outlines what you must do as a minimum to reduce the effects of bushfire on your property.

This involves:

- Understanding how fire behaves in your environment
- Knowing the steps to take to prepare your home and property before the fire season
- Preparing your property for the best chance of survival during a bushfire.

Fire behaviour

Victoria has a great diversity of vegetation, topography and weather.

Environments that are high risk for fire are:

› where suburbs meet the bush

› close to forest and woodlands

› close to grass or paddocks

› near coastal scrub.

Knowing how a fire behaves in your environment will help you to better prepare your property.

Bushfires are influenced by:

› vegetation (fuel)

› topography

› weather conditions.

Vegetation (fuel)

There are two fuel types – fine and heavy. By removing fine fuels from your property you can reduce the amount of heavy fuels that burn.

A. Fine fuels

✓ These are fuels that are the thickness of a pencil or less.

✓ They ignite quickly and burn easily. This means they can be carried by the wind as embers long distances ahead of the main fire.

✓ Branches, twigs and leaves and other fine fuels found on the ground can burn easily.

✓ Some types of scrub and trees drop leaves and twigs on the ground around them. These give off far more heat when they burn.

✓ Fibrous and dry tree bark can act like a ladder, spreading fire to treetops.

B. Heavy fuels

✓ These are greater than the width of a pencil.

✓ They take longer to ignite but will burn for longer.

✓ Branches, trees and logs are examples of heavy fuels.

✓ They create an extremely hot fire.

VEGETATION MANAGEMENT

Vegetation includes all the plants, foliage and mulch around your home. By managing the vegetation around your property you can create space around your home. This will reduce bushfire intensity.

This helps protect your house from direct flame contact and reduces the radiant heat to which your house will be exposed.

While ember attack will still occur, vegetation management around your house is important. You can reduce the likelihood of embers starting new fires near your house.

Topography

Fires burning uphill

A fire will burn faster uphill. This is because the flames can reach more unburnt fuel in front of the fire.

Radiant heat pre-heats the fuel in front of the fire, making the fuel even more flammable.

As a general rule, for every 10˚ slope, the fire will double its speed as it travels uphill.

For example, if a fire is travelling at five kilometres an hour along flat ground and it hits a 10˚ slope it will double in speed to 10 kilometres an hour up that hill.

By increasing in speed the fire also increases in intensity, flames becoming even larger and hotter.

Fires burning downhill

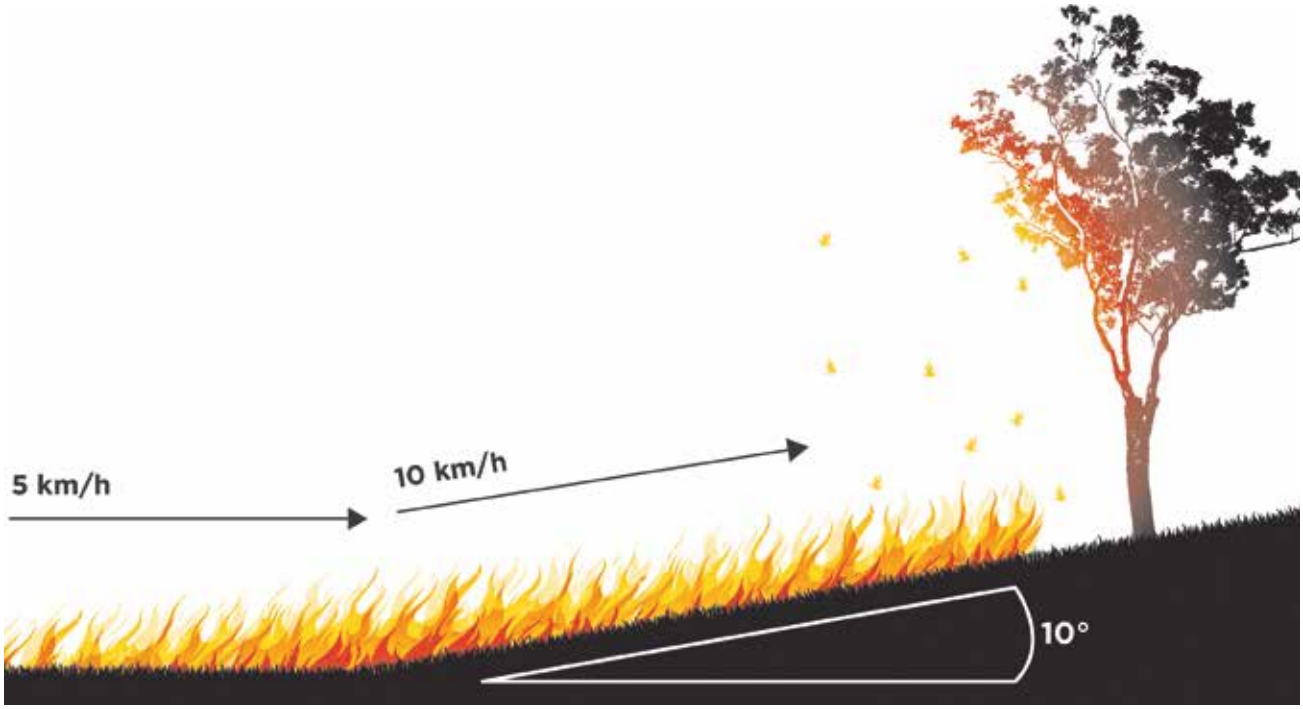
As fires travel downhill they tend to move more slowly as the flames and radiant heat reach less fuel.

Weather conditions

Bushfires can vary greatly according to weather conditions. They often start on hot, dry and windy days.

Temperature

A string of hot days will dry out vegetation, making it easier to burn. This can be made even worse by underlying dry conditions. The drier the vegetation the easier it will burn. A fire spreads as a result of wind, burning embers, radiant heat and direct flame contact.



Wind

Wind has a significant influence on the:

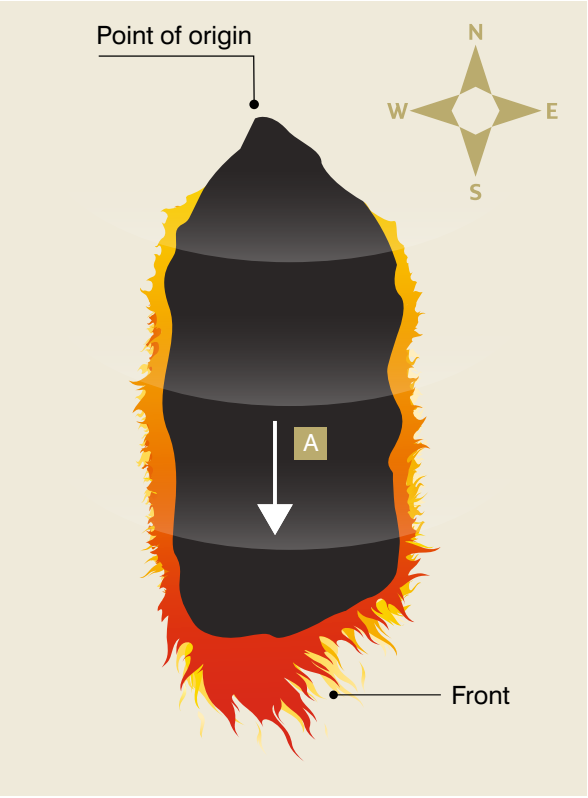
- ✓ **speed** at which a fire spreads
- ✓ **direction** in which a fire travels and the size of the fire front
- ✓ **intensity** of a fire, by providing more oxygen
- ✓ likelihood of **spotting**. Burning pieces of leaves, twigs and bark (embers) are carried ahead of the fire by winds, causing new fires to ignite. These are known as spot fires.

Wind change

A change in wind direction is one of the most dangerous influences on fire behaviour. Many people who die in bushfires get caught during or after the wind change.

In Victoria, hot, dry winds typically come from the north and north-west and are often followed by a south-west wind change. In this situation the side of the fire can quickly become a much larger fire front.

A change in wind direction can change the size of the fire front. This makes wind a very dangerous ingredient in a bushfire.

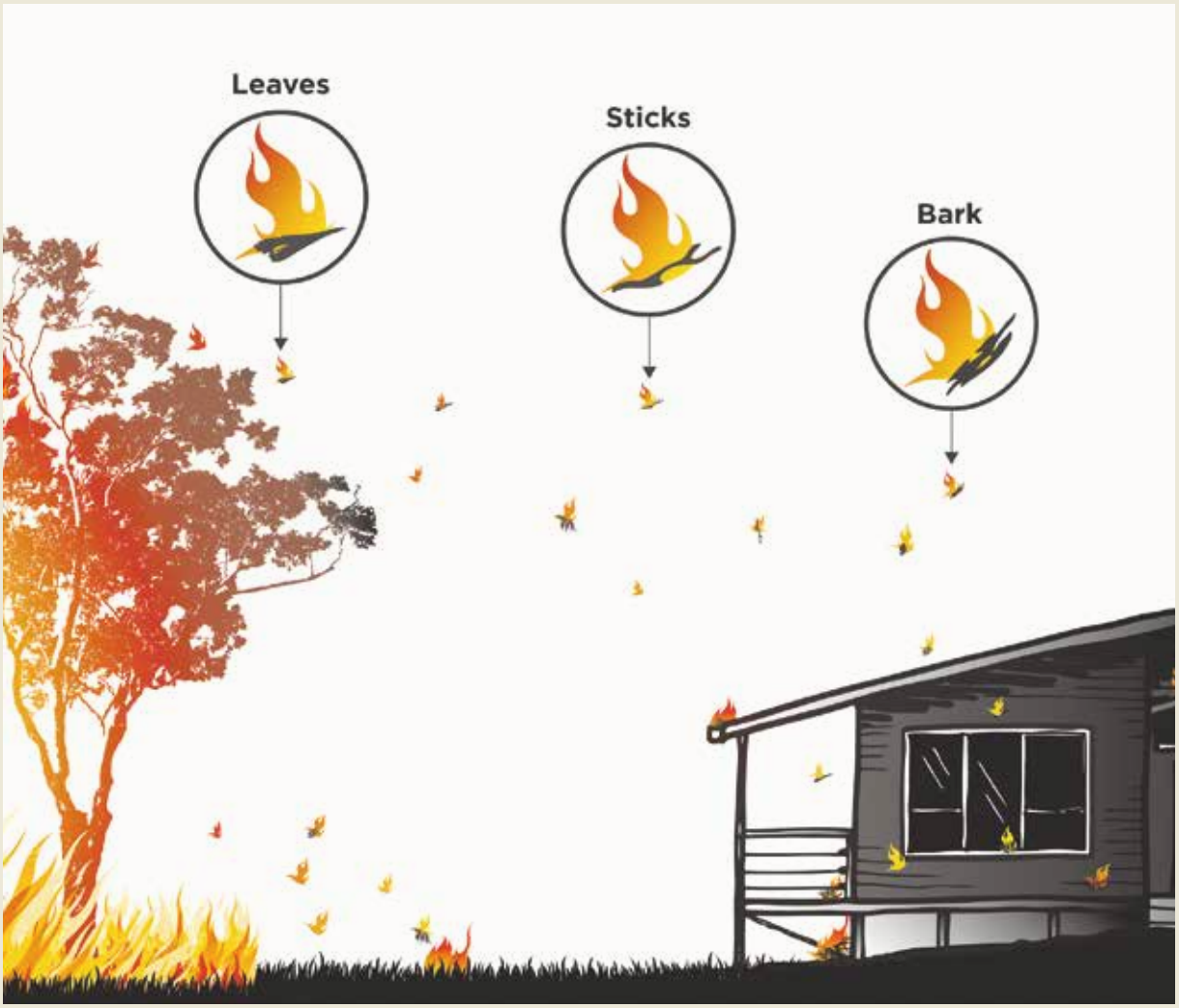


A Fire being blown by a northerly wind

B South-westerly wind change

C The eastern flank becomes a much larger fire front

What is an ember attack?



Ember attack:

- Embers are burning twigs, leaves and pieces of debris.
- Ember attack occurs when twigs and leaves are carried by the wind and land on or around a building.
- Embers can land on top of debris in your gutters and set fire to your house.
- Ember attack is the most common way houses catch fire during bushfires.
- Ember attack can happen before, during and after the bushfire.

What is radiant heat?

Radiant heat:

- Radiant heat is the heat that you feel from a fire.
- Radiant heat is the biggest killer of people and animals in a fire.
- The best protection from radiant heat is distance.
- A solid object, such as a brick wall, and suitable clothing can offer some protection from radiant heat. But they may not save your life.

Can your property really withstand a bushfire?

Everyone in Victoria who lives near dense or open bush, grassland or the coast needs to prepare their property for bushfire. Even if your plan is to leave early on fire-risk days, you need to prepare your property.

A well-prepared house where the vegetation is well managed has a greater chance of not catching alight in a bushfire. Regardless of property preparation, most homes will not be able to withstand fires in **Code Red** conditions.

You need to consider the materials from which your house is made and its design. By making modifications you can improve the likelihood that your house will survive bushfire.

Information on construction and renovation can be found in *A Guide to Retrofit Your Home for Better Protection from a Bushfire*. This publication is available at **cfa.vic.gov.au**

Even with enough managed vegetation, the safest option is to leave high-risk bushfire areas early on **Severe**, **Extreme** and **Code Red** days.

Preparing your property

You can reduce the impact of bushfire on your home by preparing your property.

These preparations must begin well before the bushfire season.

You should prepare your property even if your plan is to leave early on days of fire risk.

This will reduce the impact of bushfire on your home.

You will have to consider:

A how you will manage vegetation.

B whether your home is constructed or modified to withstand a bushfire. Note: most houses are not designed to withstand **Code Red** conditions.

C whether it is possible to improve the safety of your house with modifications and maintenance.

The illustration shows an example of a well-prepared property with managed vegetation.

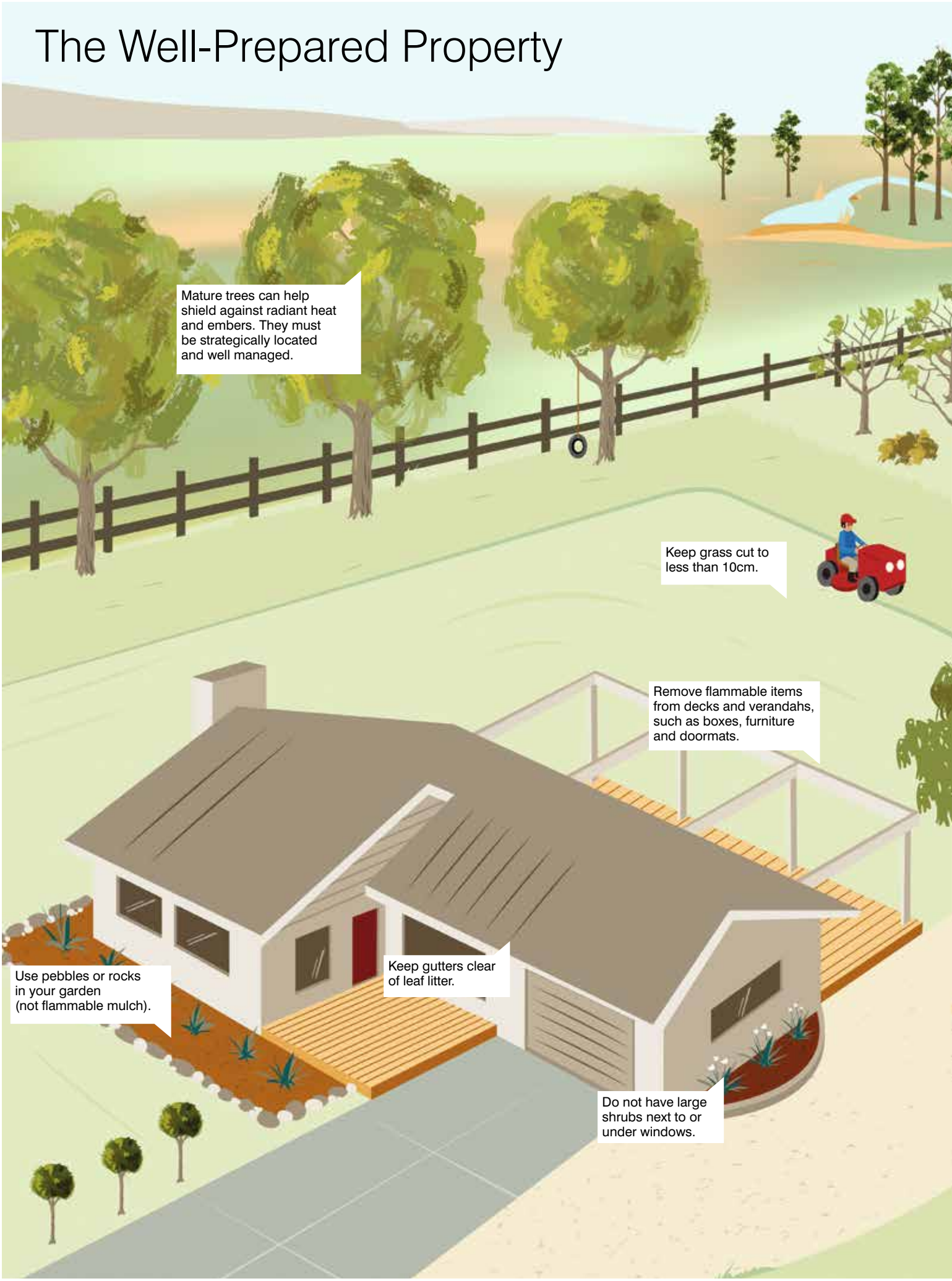
FIRE TRUCK ACCESS

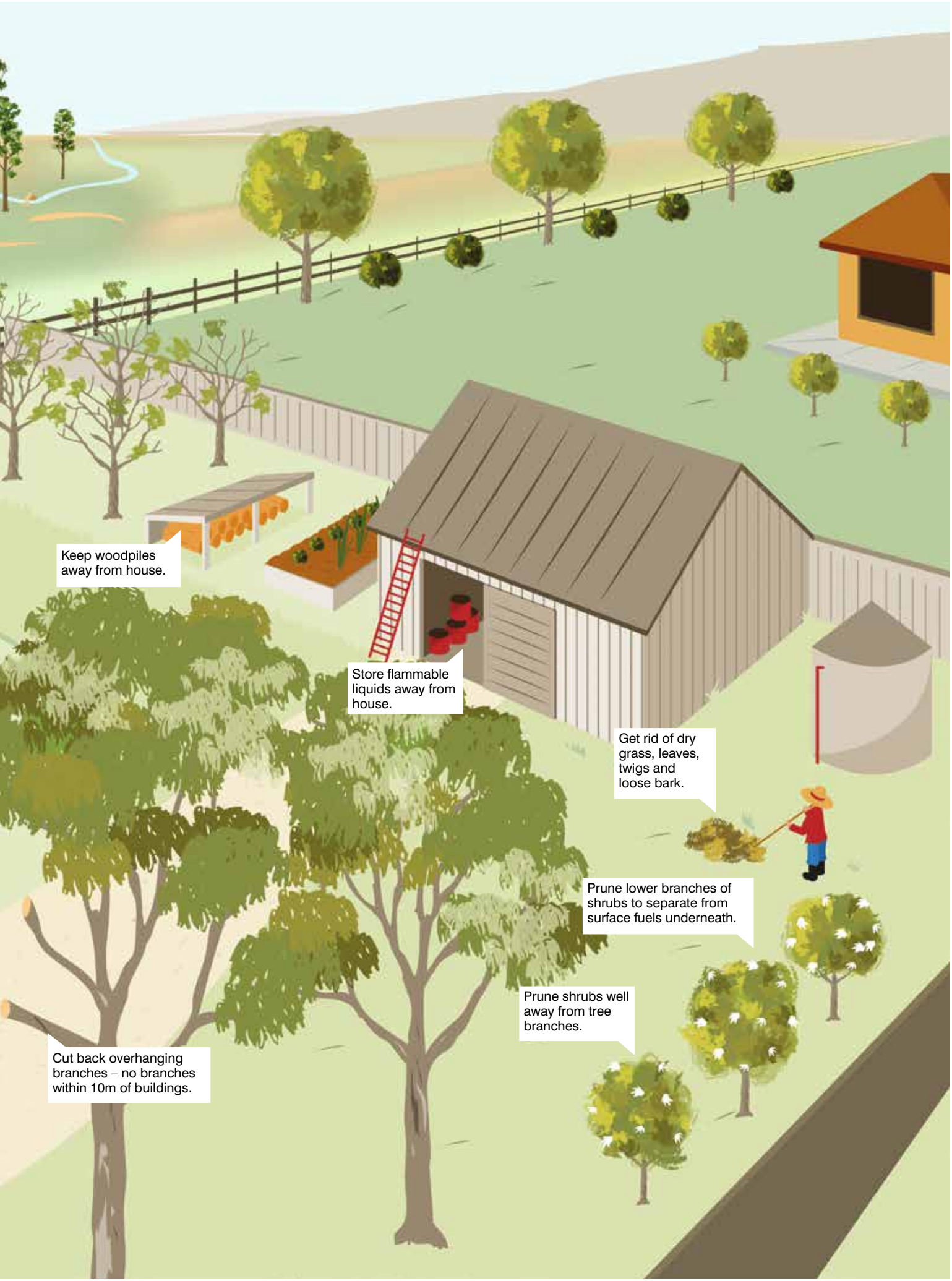
You should never rely on a fire truck coming to protect your property.

However, if a fire truck does reach your property, you will need to ensure that:

- gates are wide enough for entry and exit
- there are no overhanging branches or objects that would prevent access
- all water sources are clearly marked and easy to find
- your tank fittings are compatible with CFA fire trucks. The *Defending Your Property* Section of this Kit provides a comprehensive list of CFA-compatible tank fittings.

The Well-Prepared Property




Keep woodpiles away from house.
Store flammable liquids away from house.
Get rid of dry grass, leaves, twigs and loose bark.
Prune lower branches of shrubs to separate from surface fuels underneath.
Prune shrubs well away from tree branches.
Cut back overhanging branches – no branches within 10m of buildings.

A Managing vegetation

Managing the vegetation on your property will reduce a bushfire's intensity. By having managed vegetation, you will reduce the amount of direct flame contact and radiant heat on your house.

As a general rule you may need to undertake more vegetation management if there is dense bush all around you.

For example:

› Keep grass short – no more than 10 centimetres high

› Make space between plants and trees

› Keep fallen leaves no more than two centimetres deep.

Keep in mind that mature trees can sometimes help shield against radiant heat and embers and can play a useful role in the protection of your home against bushfires.

Managing the vegetation around your home has four main purposes:

1. To give your house the best possible chance of surviving the passage of the fire front.
2. To reduce the chance of direct flame contact and radiant heat igniting your home.
3. To help you protect your home from ember attack.
4. To provide some level of shelter as a last resort if you and your family get caught.

Whatever the type of vegetation that surrounds your home, you need to consider how it will burn during a bushfire. In general:

› homes located in a dense forest are more likely to experience high-intensity fires

› homes located in more open country may experience lower intensity, but fast moving, grassfires.

If you live in a rural environment, also consider other property assets such as sheds or fences that you want to protect.

Use the layout of your property

Fire always follows a path where fuel is located. It does not spread easily over low-fuel areas.

Manage vegetation around your home and on your property and use the following to help reduce fire intensity:

› driveways
› pools
› tennis courts
› cultivated soil or gravelled areas
› mown lawns
› grazed paddocks
› dams and natural water features.

Trees and bushfire

A fire will only burn trees where there is sufficient surface and elevated fuel to carry the fire into the tree canopy.

The fire front is often carried by undergrowth, such as shrubs and tall grasses, but loose, flaky or ribbon bark can contribute to ember attack.

What is growing under your trees? Consider how easily fire might be able to spread from the ground into the tree tops.

Fine fuels that are continuous from ground to treetop (known as ladder fuels) can assist the spread of fire from the ground up into the treetops.

You can reduce fuel ladders by:

✓ removing lower branches of trees
✓ pruning shrubs so that their tops are well away from the lower branches of trees
✓ pruning the lower branches of shrubs to separate the foliage from the surface fuels underneath
✓ reducing accumulated debris such as loose flaky bark, dead twigs, leaves or needles from within the branches of plants.

Remove weeds

› Weeds are commonly found in residential bushland areas and contribute significantly to bushfire risk.

› Give priority to removing and controlling them. This will help reduce potential fire fuel on your property.

› Your council can help you identify weeds in your local area and provide ideas on how to remove them.

Lawns and grass

› Grass needs to be kept less than 10 centimetres high. Higher than that and fire can use the grass as a ladder to other vegetation.

› You do not need to cut green lawns any shorter than five centimetres otherwise you risk causing the grass to dry out.

› Lawns between 5-10 centimetres shade the root zone and retain moisture.

Mulching

Mulch, such as wood chips or pea straw, is a fine fuel and can ignite during ember attack. It is extremely dangerous if used within a **10-metre** radius of your home especially under windows.

Instead:

› Use non-flammable mulch alternatives, such as pebbles, sand or rocks.

› Use weed matting cut to fit around plants and secured with rocks, pebbles or soil. It can be used to help retain soil moisture in garden beds.

› If you must use flammable (plant-based) mulch, apply it immediately after the fire season. This will allow it to break down over winter. Decomposed mulch still provides good moisture retention during summer. It is less likely to ignite than more recently laid mulch.

› If plant-based mulch is still dry at the beginning of the fire season, keep it wetted down or cover it with soil or sand during the fire season.

Burning off and fire restrictions

Burning off dried fine fuels and cutting back vegetation is one way to prepare your property.

If you are planning to burn off on your property, you must do this well before the fire restrictions come into force.

For more information visit **cfa.vic.gov.au** or your local council.

Plant selection

When planning your garden and property, consider the types of plants you use.

No plant is completely fire-resistant as given the right conditions all plants will burn. However, some are more flammable than others.

To help you select plants that are suitable for your local environment:

› check with your local council

› visit the Department of Environment and Primary Industries at **depi.vic.gov.au**

› consult CFA's *Landscaping for Bushfire* publication at **cfa.vic.gov.au**

The '10/30 right'

Under the '10/30 right', no planning permit is required to reduce fuel, including native vegetation, around your home.

However, as this rule does not exist in all municipalities, you should check with your council before removing any vegetation.

The '10/30 right' planning exemptions give residents who own their property in certain areas the right to:

✓ remove, destroy or lop any vegetation within 10 metres of a building used for accommodation

✓ remove, destroy or lop any vegetation, except trees (i.e. ground fuel), within 30 metres of a building used for accommodation

✓ remove, destroy or lop any vegetation for a combined maximum width of four metres either side of boundary fences.

You need to have prior written permission from the landowner for clearance on their side of the fence.

The '10/50 right'

For land subject to a Bushfire Management Overlay, the 30-metre provisions are extended to 50 metres. Clearance over and above these two planning exemptions requires a planning permit.

For more information about the 10/30 and 10/50 rights, please visit **depi.vic.gov.au**

B Your home's structure and building design

To reduce the impact of embers on your home there are some important building improvements that are recommended. These measures will assist in ember-proofing your house, making it more difficult for embers to enter the house or burn against the house.

As part of your preparation, check that you have adequate home and contents insurance.

The number of improvements will depend on the type of house you have. Research shows there are areas around your house that can contribute more to the overall bushfire risk than others. These include decks, windows, doors and roof areas.

CFA and the Building Commission's *A Guide to Retrofit Your Home for Better Protection from a Bushfire* includes building and renovation ideas to better prepare your home.

Anywhere embers can lodge or enter your house can start a fire.

› **Is your house above-ground on stumps or on a concrete slab? Do you have a timber deck or verandah?**

Protect underfloor spaces with non-combustible sheeting or metal mesh. This will prevent embers from landing under the house and starting small spot fires. Remove any combustible materials stored beneath the floor.

› **Is your house constructed from bricks, timber, cladding or a mixture?**

Roughly sawn timber or badly maintained brick work can catch embers. Ensure any external timber cladding is regularly maintained and all gaps are sealed. Seal or repair any holes, cracks or damage to flooring and walls. Cover all external vents with metal mesh (not aluminium) and keep clear of debris to prevent embers from entering your home.

› **Are your window and door frames well sealed?**

Place weather stripping around the inside of doors and windows to eliminate any gaps.

› **Do you have any skylights or evaporative coolers?**

Make non-combustible fire screens to cover external skylights. Protect evaporative coolers with metal mesh screens. You will need to check with your evaporative cooler supplier to ensure the performance of the system is not compromised by installing the mesh.

Current standard for the construction of houses in response to bushfire risk

Following the 2009 bushfires the Victorian Government brought forward the introduction of the new Australian Standard AS3959-2009 – Design and Construction of Buildings in Bushfire Prone Areas.

The standard requires houses in higher bushfire risk areas to be built to modified specifications.

The standard applies to all new homes to be built in Victoria.

For more information about the construction of new homes or the modification of existing homes:

- visit **cfa.vic.gov.au** or **buildingcommission.com.au**
- contact your local council planning or building department for further information.

Sprinkler systems can help fight embers

The objective of a bushfire sprinkler system is to help extinguish embers that land on the roof or other parts of the building.

Bushfire sprinkler systems are only one way to improve the protection of your house from embers. On their own, they are not a reliable solution to bushfire risk.

There is currently no Australian Standard for the design and installation of bushfire sprinkler systems.

To operate effectively, a sprinkler system needs to have:

- an appropriate, adequate water supply
- an activation mechanism
- a delivery system
- heads that will discharge water at appropriate densities.

The delivery system includes the pump, pipes and spray heads.

You must ensure that the:

- pump is the correct size and design to deliver water to the spray heads at a suitable pressure. The pump must be protected from radiant heat
- correct size pipes are used (determined after the completion of a full hydraulic design). Pipes must be made of non-combustible materials such as copper
- spray heads are carefully chosen so that they provide an appropriate spray pattern and discharge density that operates effectively during a bushfire.

Other considerations:

- ✓ Will your sprinkler system be able to run when mains power fails?
- ✓ Do you have an adequate water supply? A sprinkler system should be able to run for several hours.
- ✓ What effect will wind have on the delivery of water to critical areas of your home?

For more information about designing an appropriate bushfire sprinkler system, consult professionals who specialise in them.

C House maintenance and improvement

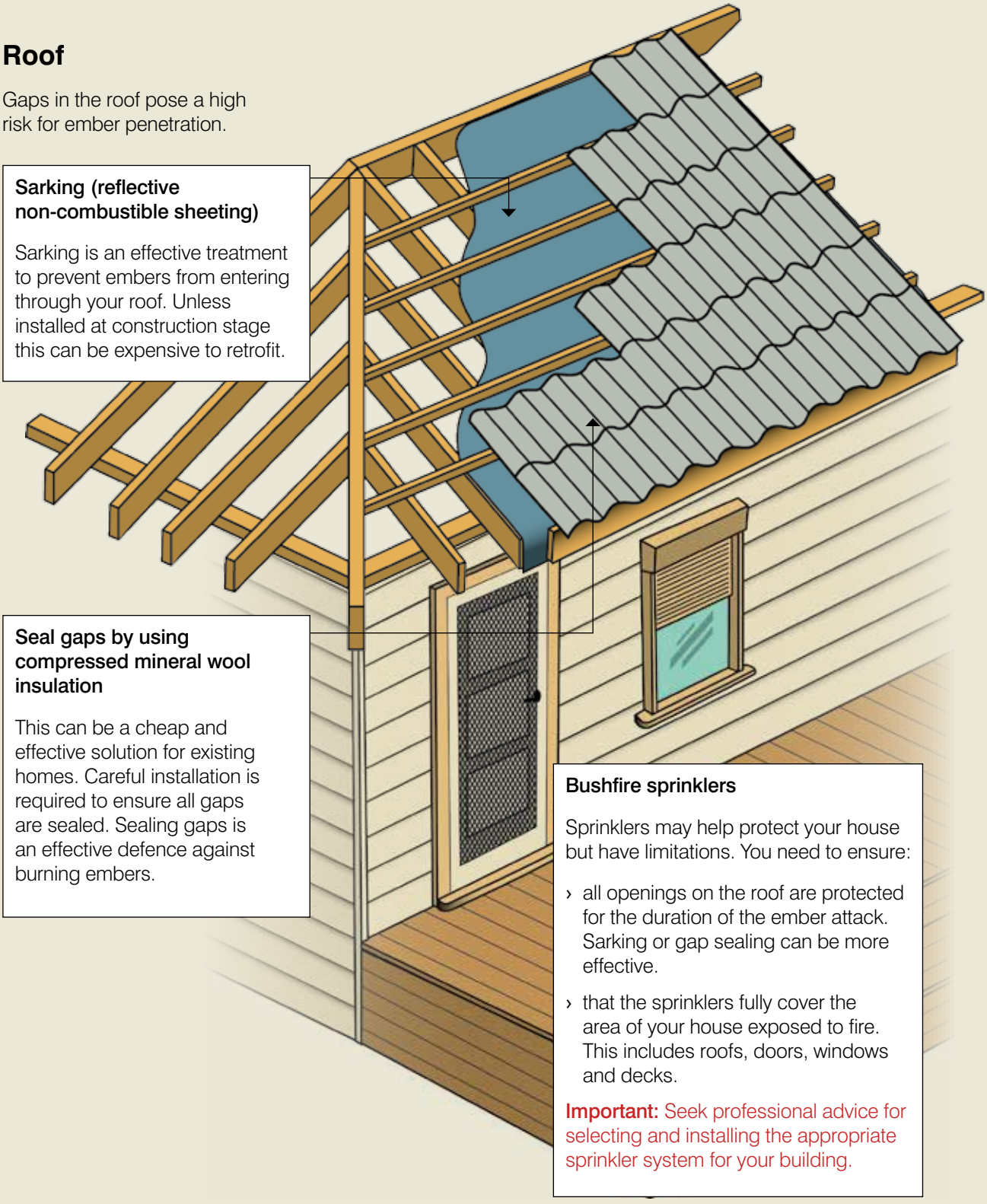
House maintenance and improvement greatly reduce the risk of embers entering your house. Seal all gaps around your house and roof, or install fine fly wire mesh around larger areas that cannot be sealed.

Roof

Gaps in the roof pose a high risk for ember penetration.

Sarking (reflective non-combustible sheeting)

Sarking is an effective treatment to prevent embers from entering through your roof. Unless installed at construction stage this can be expensive to retrofit.



Seal gaps by using compressed mineral wool insulation

This can be a cheap and effective solution for existing homes. Careful installation is required to ensure all gaps are sealed. Sealing gaps is an effective defence against burning embers.

Bushfire sprinklers

Sprinklers may help protect your house but have limitations. You need to ensure:

- all openings on the roof are protected for the duration of the ember attack. Sarking or gap sealing can be more effective.
- that the sprinklers fully cover the area of your house exposed to fire. This includes roofs, doors, windows and decks.

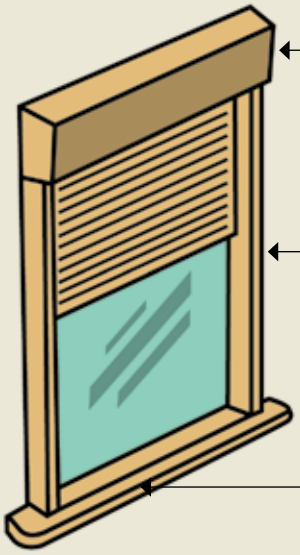
Important: Seek professional advice for selecting and installing the appropriate sprinkler system for your building.

Windows

Open and unscreened windows pose an extreme risk.

Screened windows and sills

Installing wire mesh screens (not aluminium) with 1.5-millimetre holes over both the window and frame can prevent embers touching the glass or timber. This can also be an effective method for reflecting radiant heat.



Shutters

Installing shutters over both the window and frame will protect windows from cracking from flying embers.

Seal gaps around window frames

This is an effective treatment for existing metal window frames. The sealant should be fire retardant.

Maintenance of window sills

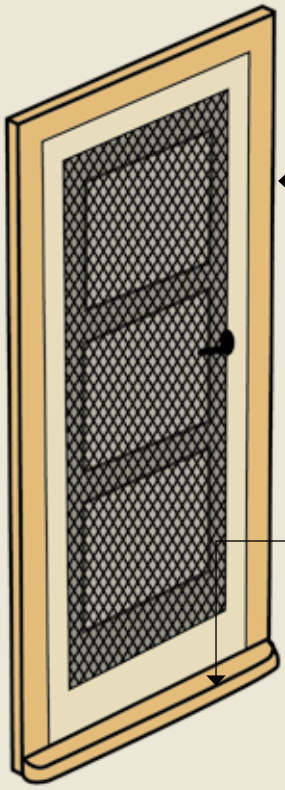
Embers lodging on combustible window sills pose a high risk. Maintain window sills so there is no flaking paint.

Doors

Open and unscreened doors pose an extreme risk. Embers lodging on combustible door sills and gaps around door frames pose a high risk.

Screened doors

Installing metal screen doors over timber doors will reduce the chance of an ember igniting the door.



Seal gaps around door frames

If the door is non-combustible, sealing the gaps around the door will prevent embers from entering your home.

Non-combustible door sill

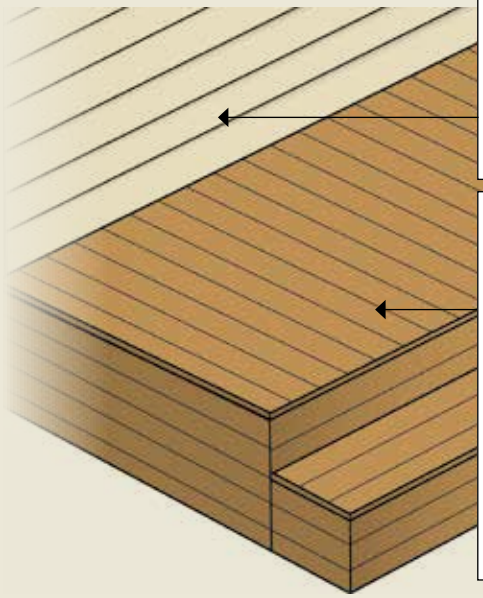
Replacing combustible door sills with a non-combustible product will reduce the chance of an ember igniting.

Decks

Embers lodging on decks pose a very high risk of ignition

Non-combustible decking materials

Non-combustible decking material will not burn. Use concrete stumps, metal framing and fire-retardant-treated timber.



Separation from the dwelling to prevent fire spread

If the deck is built with combustible material, non-combustible material should be placed between the deck and the house. This will reduce the possibility of the fire spreading between the deck and the house.

Construct with gaps between decking materials

Leaving gaps between the decking timbers will allow most embers to fall through. However, there is still a possibility of embers igniting at timber junction points. Ensure there is no fuel under the decking and that you have access underneath to put out any spot fires.

Fire and the environment

Vegetation management outside your property

Private landholders must always obtain permission from their local council (or VicRoads for most main roads) for any works on roadsides, including fire management and planting.

Local residents do not need a permit to remove fallen wood from roadside areas scheduled for burns within two weeks of a planned burn.

Department of Environment and Primary Industries (DEPI) and Parks Victoria may undertake planned burns and build fuel breaks to manage vegetation on public land.

A fuel break is a strip of land where vegetation has been reduced or removed.

Environmentally friendly ways to manage your fire safety

Identify the environmental assets that you would like to protect from fire or fuel reduction.

These may include:

- waterways
- erosion-prone areas
- shrubs that provide screening or bird habitat
- hollow trees that provide nesting sites
- rare species
- bushland that you have regenerated.

Design your fire management using the following environmental management principles:

- Where practical, avoid damaging the environment. Consider things you can do to help keep embers from entering your buildings before you consider vegetation removal.
- Reduce the fuels by methods that avoid exposing the soil and encouraging weed growth. Consider raking and slashing fuels.
- Offset or compensate changes to the natural environment. Replace removed vegetation with vegetation of the same type and quality elsewhere on your land.

Seek appropriate advice about managing your soil, vegetation and waterways from your local council or DEPI.

Using fire

Using fire for ecological or fuel reduction purposes is a complex and specialist tool.

You should seek advice from your local council, CFA District Office or local DEPI office.

Section Six
Defending Your Property

6

Section Six
Defending Your Property

Defending your home requires at least two fit and determined adults who are physically and mentally able to work in arduous and difficult conditions.

Defending also requires at least 10,000 litres of water, protective clothing, and appropriate firefighting hoses and pumps.

Defending your home is risky – you could be seriously injured, suffer psychological trauma or die. The safest option is to be well away from the threat.

Do not expect a fire truck to help you defend your home.

Can I stay and defend?

If you are confident that you are capable and prepared to actively defend your property, CFA strongly recommends that you **read all sections of this Kit** – not just this section in isolation. Defending a home requires a detailed understanding of bushfire risk and behaviour, property preparation, Fire Danger Ratings, warnings and alerts, and sheltering options, among other areas. This information is outlined earlier in this Kit.

In high-risk areas, leaving early is the safest option on **Code Red** days. Do not wait and see. Know your trigger to leave – make a decision about when you will leave, where you will go, how you will get there, when you will return and what you will do if you cannot leave.

Most houses are not designed or constructed to withstand fires in **Code Red** conditions. Defending your home is very risky. You could be seriously injured or die.

Only consider staying with your property on **Severe** or **Extreme** days if you are fully prepared and can actively defend your home.

Defending a house requires at least two fit and determined adults who are physically and mentally prepared to work long and hard in arduous and difficult conditions.

If you are not prepared to the highest level, leaving high-risk bushfire areas early is your safest option.

UNPREPARED PROPERTIES

Staying with an unprepared property is very dangerous and could cost you your life.

If you have not prepared your property before the fire season you should leave before bushfire threatens.

FOUR FACTORS TO CONSIDER

There are four important factors to consider when planning to defend your property:

1. Personal capacity
2. Property preparation
3. House design and construction
4. Recommended equipment and resources.

Remember

Even people who are extremely well prepared can die fighting fires at their home. The best way to survive a bushfire is to be away from the threat.

- A bushfire can destroy your house even if your house is bushfire ready.
- People get hurt and die in bushfires.
- Survival must be your main priority.
- Most houses in high-risk bushfire areas are not built to withstand bushfire.
- Defending your home is risky and complex.

Personal capacity

Defending your home will be extremely hard work and requires significant resources. It may take hours and sometimes days of extreme effort. Children, the elderly, and people with special needs or a disability should be well away from the threat.

If you stay and defend your house it will be:

- traumatic
- physically and mentally tiring
- hard to see
- hard to breathe
- very noisy
- very hot.

Do not stay and defend if you have:

- ☒ asthma
- ☒ a heart problem
- ☒ other illness/disability.

Do not stay and defend if you are with a person who:

- ☒ has a physical disability
- ☒ has an intellectual disability
- ☒ has emotional or mental health problems
- ☒ is sick
- ☒ is elderly
- ☒ is a child less than 16 years old.

Property preparation

Section 5 *(Preparing Your Property)* of this Kit outlines what is required to prepare your property before the fire season.

No matter how well you prepare, if you live in a high-risk area your home may not be defendable on **Severe**, **Extreme** or **Code Red** fire risk days.

House design and construction

How well your house is constructed and designed plays a big part in how it will withstand a fire.

CFA and the Building Commission have produced a guide to better prepare your home. Download *A Guide to Retrofit your Home for Better Protection from a Bushfire* from **cfa.vic.gov.au**

If you're building a new home or significantly extending your existing home, certain bushfire planning and building requirements may apply. For more information, see *CFA's Planning for Bushfire Victoria* guidelines at **cfa.vic.gov.au/pbv**

Water, equipment and resources

Water supply

To defend your property, you will need a *minimum* of 10,000 litres of water that you reserve only for fighting fires. Consider 40,000 litres to be a realistic amount of water – many people in the Black Saturday bushfires used more than this to defend their homes.

Your water supply needs to be independent from the mains (reticulated) water supply because you will not be able to rely on mains water during a bushfire.

Water tanks

If you can, install (or reserve) a 10,000-litre tank specifically for firefighting purposes. Your tanks should ideally be made from galvanised iron or concrete, as plastic tanks can melt.

If you do have a plastic tank, protect it from radiant heat by constructing a barrier – this could be a brick wall or corrugated iron sheeting.

A good alternative is to use a below-ground tank or to bury an existing tank.

- Place the tank close to the buildings you need to protect.
- Make sure you can access the water easily.
- Remove vegetation around it.

Alternatively, use a variety of sources such as multiple smaller tanks, a dam (keeping in mind that it could dry up over summer) or a swimming pool.

As a minimum, you should have:

- at least 10,000 litres of water
- a firefighting pump
- firefighting hoses that reach around your home
- protective clothing.

Additional water storage

Make a list of other places where you could strategically store water around your property. Consider:

- 44-gallon drums
- Rubbish bins (wheelie bins work well provided they are not exposed to extreme heat)
- Wheelbarrows
- Troughs
- Garden ponds.

Ideally, keep these filled up throughout the fire season, covering them for safety purposes. Otherwise, fill them up on fire risk days as part of your plan (remember it will be too late to do this when a fire is coming).

Piping

If your water supply is stored in a tank, it is important to think about how the piping is constructed or installed.

Water supply

Above-ground piping and fittings should be made of copper, brass or steel. If your pipes are made of plastic, make every effort to protect them from heat by covering or burying.

The recommended depths for installing below-ground piping are:

› Subject to vehicle traffic: 300mm

› Under houses or concrete slabs: 75mm

› All other locations: 225mm.

Tank fittings

Above-ground tanks should have a CFA-compatible tank fitting. It is best to have a 'T' or 'Y'-type fitting with two outlets – one for CFA and one for you. This will allow you to operate your hoses alongside a CFA truck.

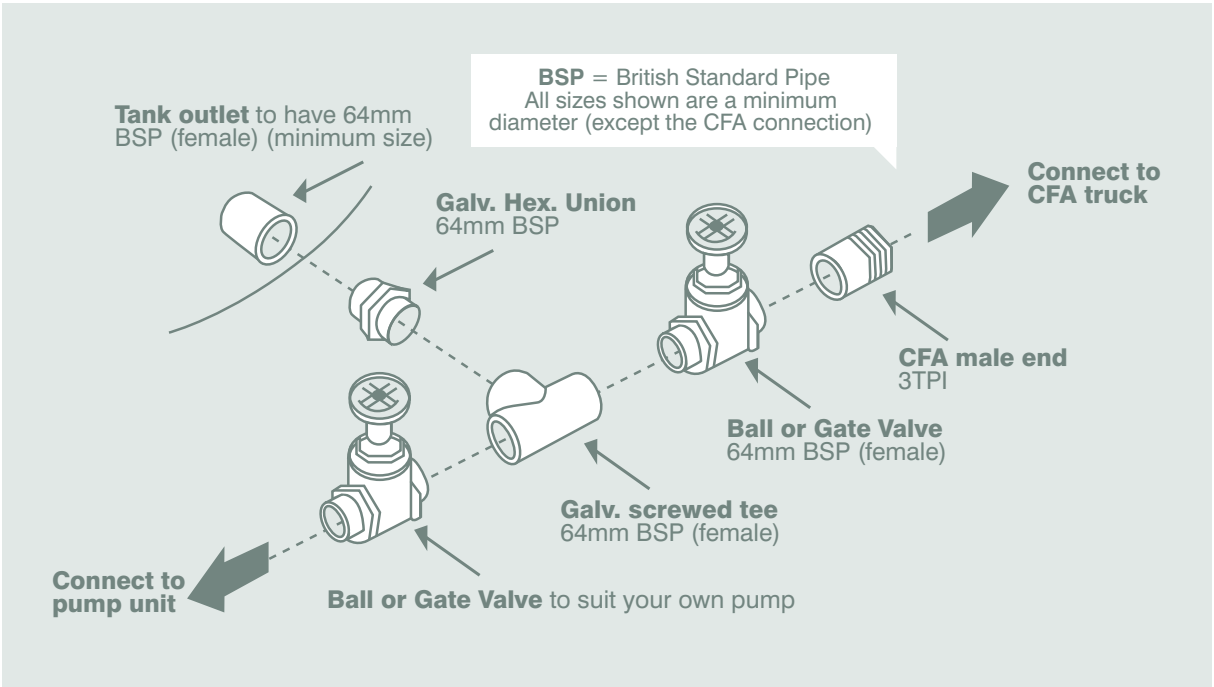
The diagram below shows a 'T'-type fitting with CFA specifications.

Remember:

› All pipework and valving between the water supply and the outlet must be no less than 50mm nominal bore.

› If the tank is less than 20 metres from your house, the outlets should face away from the building to allow access by CFA fire trucks. It could be a hazard if a truck is forced to fill up between the tank and a burning house.

IMPORTANT NOTE: People who choose to defend their homes should prepare to do so without assistance from emergency services.



Firefighting pump

You'll almost certainly need a firefighting pump to deliver water from your independent water supply.

If you have an electric water pump, you will need to have a generator that has enough capacity to start and run the pump. Never rely on mains power operating during a bushfire. A good supplier should be able to provide you with advice about what size pump you need.

This will depend on:

- The source of the water and how far away it is
- Piping size, length and configuration
- The number of outlets you will be using at the same time, including any sprinkler outlets
- The size and length of the hoses you are using with your pump
- Whether a diesel or petrol pump is a better option for you.

Protecting your pump against radiant heat is vital, because when it overheats or melts, the fuel inside can vaporise – causing the pump to stop working.

Give your pump the best possible protection by either installing it inside a well-constructed shed, or constructing a shelter or alcove around it using non-flammable materials such as corrugated iron, brick or concrete. Another option may be to place the pump in the protected space between two tanks.

To protect a shed against ember attack and radiant heat, follow the same steps as you would when preparing your house.

NO POWER, NO PUMP, NO WATER

If you rely on tank water driven by an electric pump as your primary water source, you will lose access to water if the electricity goes off in a fire. An electric pump powered by a generator or a plumbed-in petrol/diesel pump are significantly more reliable in a fire situation.

Schedule in a check-up before the fire season

You should test all your equipment before each fire season to make sure it works the way you want it to. At the same time:

› Change the fuel in the pump (stale fuel could prevent it from working properly).

› Make sure every adult in the house knows how to use the pump. Conduct a refresher session. **There's no point in relying on a pump if only one family member knows how to use it.**

› Go over your back-up plan for what to do if the pump breaks. Make sure you have a spare start-up rope and know how to fit it. Consider other spare parts as well.

SPRINKLERS CAN HELP FIGHT EMBERS

Good-quality, well fitted bushfire water spray (sprinkler) systems can help to protect your house against ember attack. On their own they are not a reliable solution to bushfire risk.

Firefighting hoses

If you are buying firefighting hoses for the first time, the two most important considerations are length and material. Hoses need to reach all the way around your house, so you'll need to measure the distance using a line of string.

Specially made fire-resistant hoses are far more reliable than standard garden hoses, which are made from plastic and could melt during a bushfire. You'll need to consider the fittings as well as the hose itself – choose metal over plastic.

Keep in mind that the bigger the hose diameter, the heavier it will be when you're using it (due to the higher volume of water).

Tips:

✓ Put a firefighting hose fitting connection on to your washing machine tap so you can use the hose inside if necessary.

✓ Have spare hose fittings on hand and know how to replace them.

✓ Buy hose bandages. These are a type of clamp designed to temporarily stop leaks and indicate damaged areas for later.

At the start of the fire season, check and clean hoses, nozzles and hose fittings for blockages – these can be caused by insects or rodents which nest over winter.

Protective clothing

Put together a kit of clothing for each household member. You must cover all exposed skin to protect yourself from radiant heat and embers. Change into these clothes as soon as you are aware of fire in your area.

Remember, protective clothing can only protect you from low levels of radiant heat.

Your kit

- A A wide-brimmed hat to protect your head.
- B Eye protection such as smoke goggles to shield your eyes.
- C A ‘P2’ type mask or cotton scarf/handkerchief for face protection and to filter smoke.
- D A long-sleeved, collared shirt and long pants made from cotton or some other natural fibre.
- E Tough leather garden gloves – not rubber or synthetic.
- F Sturdy boots and wool or cotton socks.

Other equipment

If you are planning to defend your home, firefighting pumps and hoses are vitally important. However, there are a few everyday household items that can also be of use.

- **Buckets**. Metal buckets are best as plastic ones can melt.
- **Mops**. Use old-fashioned mops made from wood and metal with a cotton head. When soaked in water these can be used to put out embers.
- **Shovels and rakes**. These can be used for shovelling dirt on to embers or small fires or to break up piles of burning material.
- **Knapsacks or water sprayers**. Special knapsacks can be bought for firefighting, but many of the weed sprayers available in hardware stores are also suitable (if you have used them with chemicals make sure they are cleaned before the fire season). Keep in mind that a 20-litre knapsack will weigh more than 20 kilograms when it is full of water.
- **Ladders**. You'll need sturdy ladders to check the ceiling space and roof for embers.
- **Blankets and towels**. Wool or cotton only. When wet, they can be used to seal gaps under doors.
- **Torches**. Battery-powered or wind-up. Leave a torch in the roof space to check for embers. Have another in the house for when the power goes off during a bushfire. Don't forget to set aside plenty of spare batteries.
- **Radio**. Battery-powered or wind-up. Tune into your local emergency broadcaster for fire warnings and updates.
- **Downpipe or gutter plugs.** To fill your gutters with water you will need a way to block the downpipes.

Depending on the shape of your downpipes, you may need to buy specially-made gutter plugs. Other materials that may work to block your downpipes include small sandbags, wet towels or tennis balls. Alternatively, ask a plumber to install a shut-off valve on all your downpipes.

WILL YOU HAVE TIME?

There's no use having firefighting equipment if it is in your shed when the fire comes. You'll need to set your equipment up on the morning of (or the day before) a forecast fire risk day. When you hear of a fire approaching, there may not be time.

CAUTION

You need to reassess your decision to defend your property the morning of **Severe** and **Extreme** days. Always consider if your circumstances have changed.

On days of **Code Red** fire risk the safest option is to leave the night before or early in the morning. Do not wait until there is fire in the area to make the decision.

Leaving late when fire is close to your house is extremely dangerous and could result in death. Do not expect a fire truck.

Additional firefighting equipment

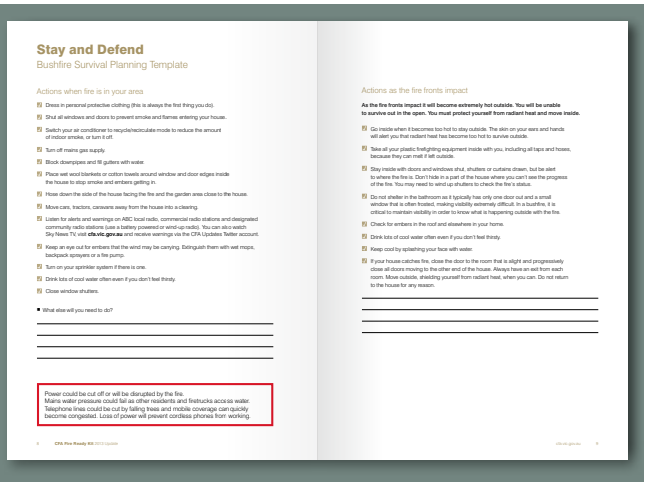
Your Bushfire Survival Plan

Plan ahead

Not everyone thinks clearly in an emergency. Write your plan down and discuss it with all family members, and make sure everyone knows which responsibilities are allocated to them. Everyone should be aware that staying to defend involves a high risk of psychological trauma, injury or possibly death.

USE THE TEMPLATES IN THIS KIT

The two Bushfire Survival Planning Templates included in this Kit are a practical, step-by-step resource to help to develop and document your plan. CFA strongly recommends that anyone contemplating defending a property uses these templates to help them write their plan.


Stay and Defend
Bushfire Survival Planning Template

Actions when fire is in your area

- Dress in personal protective clothing (this is always the first thing you do).
- Shut all windows and doors to prevent smoke and flames entering your house.
- Switch your air conditioner to recycle/recirculate mode to reduce the amount of indoor smoke, or turn it off.
- Turn off mains gas supply.
- Block downpipes and fill gutters with water.
- Place wet wool blankets or cotton towels around window and door edges inside the house to stop smoke and embers getting in.
- Hose down the side of the house facing the fire and the garden area close to the house.
- Move cars, tractors, caravans away from the house into a clearing.
- Listen for alerts and warnings on ABC local radio, commercial radio stations and designated community radio stations (use a battery powered or wind-up radio). You can also watch Sky News TV, visit cfa.vic.gov.au and receive warnings via the CFA Updates Twitter account.
- Keep an eye out for embers that the wind may be carrying. Extinguish them with wet mops, backpack sprayers or a fire pump.
- Turn on your sprinkler system if there is one.
- Drink lots of cool water often even if you don't feel thirsty.
- Close window shutters.

What else will you need to do?

Power could be cut off or will be disrupted by the fire.
Mains water pressure could fail as other residents and firetrucks access water.
Telephone lines could be cut by falling trees and mobile coverage can quickly become congested. Loss of power will prevent cordless phones from working.

Actions as the fire fronts impact

As the fire fronts impact it will become extremely hot outside. You will be unable to survive out in the open. You must protect yourself from radiant heat and move inside.

- Go inside when it becomes too hot to stay outside. The skin on your ears and hands will alert you that radiant heat has become too hot to survive outside.
- Take all your plastic firefighting equipment inside with you, including all taps and hoses, because they can melt if left outside.
- Stay inside with doors and windows shut, shutters or curtains drawn, but be alert to where the fire is. Don't hide in a part of the house where you can't see the progress of the fire. You may need to wind up shutters to check the fire's status.
- Do not shelter in the bathroom as it typically has only one door out and a small window that is often frosted, making visibility extremely difficult. In a bushfire, it is critical to maintain visibility in order to know what is happening outside with the fire.
- Check for embers in the roof and elsewhere in your home.
- Drink lots of cool water often even if you don't feel thirsty.
- Keep cool by splashing your face with water.
- If your house catches fire, close the door to the room that is alight and progressively close all doors moving to the other end of the house. Always have an exit from each room. Move outside, shielding yourself from radiant heat, when you can. Do not return to the house for any reason.

Your plan needs to outline:

- actions before the bushfire season
- actions during the bushfire season (the Fire Danger Period)
- actions to defend your property (the night before or morning of a high fire danger day)
- actions when fire is in your area
- what to do after the fire front passes
- your backup plan.

Sound planning needs to be both realistic (to take into account the realities of your life) and flexible (because circumstances change).

Be realistic

Think about who will be at home if a fire risk day (or a fire) occurs on a weekday, a weekend or a public holiday. How will this affect your ability to put your plan into action?

What will you do if:

- Your children are at school?
- You have visitors staying with you?
- Family members are away for work or holidays?

If someone is away, someone else will need to take over their bushfire plan responsibilities.

This should be a fit and determined adult – not a person who:

- ☒ has a physical disability
- ☒ has an intellectual disability
- ☒ has emotional or mental problems
- ☒ is sick
- ☒ is elderly
- ☒ is a child less than 16 years old.

Be flexible – circumstances change

Be prepared to reassess your decision to defend your property if needs be. On the morning of **Severe** and **Extreme** days, think carefully about whether your circumstances have changed and whether staying and defending is still the best option.

On **Code Red** days, the safest option is to leave the night before or early in the morning. Do not wait until there is a fire in the area to make the decision.

Leaving late when fire is close to your house is extremely dangerous and could result in death. Do not expect a fire truck.

Your backup plan

Having alternative plans detailing what you will do if parts of your Bushfire Survival Plan fail is very important. This will need to include a plan of what to do if:

- your pump or other equipment fails
- your house catches fire and you need somewhere else to shelter
- you injure yourself and need somewhere to shelter safely.

Leaving when the bushfire has arrived is extremely dangerous and can be deadly. You must consider your safest options if you are unable to stay in your house.

Shelter options may include a:

- well-prepared home (yours or a neighbour) that you can actively defend
- private bunker (that meets current regulations)
- designated community shelter or refuge.

While these survival options carry a high risk of trauma, injury or death they may provide you with some protection from radiant heat.

If sheltering in a building during a bushfire, make sure you have more than one point of exit in every room used as a shelter.

Most bathrooms are unsuitable to shelter in. They typically have only one door which can make escape impossible if that exit is blocked by flames and heat. Any place of shelter within a house or building should have two points of exit.

Most bathrooms also have frosted windows that do not let you see outside – during a bushfire it is critical to look outside and know what is happening.

In situations where no other options are available to you, taking shelter in one of the below may protect from radiant heat:

- Neighbourhood Safer Place (Place of Last Resort)
- stationary car in a clear area
- ploughed paddock or reserve
- body of water (such as the beach, swimming pool, dam or river). This does not include a water tank. Dams may not be reliable as their water levels fluctuate and they may be empty in summer.

High risk of trauma, injury or death. These are last resort options and do not guarantee your survival.

Activating your plan of action

1 On or before fire risk days

Waiting until a fire is in the area to do all the things below is very risky: remember that tasks such as filling tanks and gutters with water take time.

Many people have been caught out thinking they had more time to act before the bushfire arrived. You should plan for the fact that you'll have no more than 30 minutes before the fire hits after hearing about a fire in your area. Bushfires can travel extremely fast and hit without warning.

Do these tasks well before there are any signs of fire:

- Check that protective clothing kits are easy to access
- Check that shovels, mops, water knapsacks and other equipment are ready
- Check pumps – make sure they are working
- Connect and roll out fire hoses
- Fill inside water storage (bath, laundry trough, bucket)
- Double check that gutters are clean
- Put downpipe/gutter plugs in place
- Take small pets inside and keep them there
- Move stock or large animals to a cleared or grazed-down paddock. Take all rugs and halters off horses.
- Set up a ladder under the manhole
- Place a torch in the roof cavity
- Keep any LPG cylinders on a level concrete surface and secured by a chain. Face vent pipes away from the house
- **Check for fire warnings and alerts.**

WILL I GET A WARNING?

1. Fires can start suddenly.
2. You might not get an official warning.
3. Depending on which community you are in you may hear a siren sound. Go to **firecommissioner.vic.gov.au/policies** for more information about where sirens are in place.
4. Listen for information about towns or suburbs near you. The name of your town or suburb might not be in a warning.
4. When you can, look outside to check for signs of fire. For example, smoke and embers.
6. Make sure you have a radio that uses batteries. Keep extra batteries. You will need these if there is no power.
7. Listen for alerts and warnings on ABC local radio, commercial radio stations and designated community radio stations, watch Sky News TV or visit **cfa.vic.gov.au**. You can also receive warnings via the **CFA_Updates** Twitter account.
8. For some fires, you may hear the Standard Emergency Warning Signal (SEWS) siren before the alert message over your radio or television.
9. You may also get an alert sent to your landline or mobile phone based on its location.

Do not rely on one source of information.

2 When fire is in your area

- Put on protective clothing. This is always the first thing you do.
- Shut all windows and doors to prevent smoke entering your house. Close window shutters (you may need to open shutters a little to maintain visibility).
- Turn off mains gas supply.
- Block downpipes and fill gutters with water.
- Place wet blankets or towels (wool or cotton) around the edges of windows and doors inside the house to stop smoke getting in.
- Switch your air conditioner or evaporative cooler to recycle/recirculate mode to reduce the amount of indoor smoke, or turn it off.
- Hose down the sides of your house and the garden area closest to the house.
- Move cars, tractors, caravans away from the house into a clearing.
- Take any other animals inside.
- Continue to check and monitor warnings and alerts.

If it is safe to do so, patrol outside your home for embers – be aware that these may fall well ahead of the main fire front. Extinguish embers as soon as they land using a wet mop, backpack sprayer or hose.

3 As the bushfire approaches

As the bushfire approaches there may be embers falling. While still outdoors, you will need to extinguish them as best you can. Turn on the bushfire sprinkler system if you have one. When it gets too hot you will need to go inside to protect yourself from radiant heat. The skin on your ears and hands will alert you that radiant heat has become too hot to survive outside.

The time it takes for a fire to pass varies, but expect to remain inside for at least 20-30 minutes. As the fire passes it will be dark and very noisy. The sky will turn black.

When you go inside:

- Take any plastic firefighting equipment inside with your, including taps, connections and hoses.
- Stay inside. Close shutters and draw curtains, but stay alert to where the fire is.
- Maintain visibility. Stay in a room where you can see out of the window. Wind up shutters as necessary to check the fire's status.
- Keep checking for embers in the roof space and elsewhere in your home.
- Continue to drink lots of cool water even if you don't feel thirsty.
- Keep cool by splashing your face with water.

4 After the fire front has passed

Exercise extreme caution before deciding to go outside – depending on what is burning around you the levels of radiant heat could be very high and potentially fatal.

You will need to use your own judgement to assess when it is safe. Continue to wear your protective clothing and stay hydrated. As soon as you can, call friends and family to let them know you are safe.

Your focus will now be on extinguishing things around your house that are already alight, giving priority to any fires with the potential to spread and those closest to your house.

Note that large trees may continue to burn for many hours and will be very difficult to extinguish.

Embers will continue to land on and around your house, and may do so for many hours. You'll need to keep patrolling and checking for burning embers:

- inside the roof
- under the floor boards
- under the house
- on verandahs and decking
- around window sills and doors
- in garden beds and mulch
- in wood heaps
- in sheds.

DEFENDING YOUR PROPERTY AND RADIANT HEAT

Enacting your plan of action will involve decisions about when to go inside (as the fire front approaches) or outside (when the fire front has passed). You will need to use your own judgement – unnecessary risks could be fatal.

Radiant heat is the intense heat which radiates from a bushfire. It is like the heat you feel from a campfire, but can be up to 50,000 times stronger. In the right conditions, radiant heat can ignite exposed surfaces and crack or break windows.

It is radiant heat – not flame contact – that is the biggest killer in a fire. The human body cannot absorb large amounts of radiant heat without its cooling system failing, leading to heat exhaustion and heart failure.

Radiant heat can be blocked by a solid object or barrier such as a concrete wall or building. This heat travels in straight lines, radiating out from a bushfire ahead of the flames and will bounce off solid objects, although it will travel through glass.

If you are caught outside in a fire, protect yourself by:

- covering up exposed skin
- being as far away as you can – by doubling your distance from the fire you reduce the radiant heat load by four times
- getting behind a solid object or barrier
- stay away from windows as radiant heat can pass through glass.

See page 65 for clothing that can protect you against radiant heat.

If you are trapped in your house

If your house catches fire while you are in it you will need to respond quickly. It is critical to maintain visibility to know what is happening outside with the fire.

You need to:

- Close the door to the room that is on fire
- Move to the other end of the house, closing all the doors behind you
- Do not get trapped in a room without an alternative exit
- Move outside to burnt ground as soon as you can
- Seek shelter in another building if it is still too hot outside
- Drink water to prevent dehydration.

Make sure you have a point of exit in every room used as a shelter. Most bathrooms are unsuitable to shelter in. They typically have only one door which can make escape impossible if that exit is blocked by flames and heat. Any place of shelter within a house or building should have two points of exit.

Most bathrooms also have frosted windows that do not let you see outside – during a bushfire it is critical to maintain visibility to know what is happening outside.

If it is still too hot outside you will need to seek shelter in another building or structure.

What is it like to experience a bushfire?

Bushfires are frightening and stressful. Understanding what to expect and being well-planned and confident about what you will do can help you to cope.

What to expect:

- Embers and spot fires moving ahead of the main fire
- Smoke, heat, noise and possibly darkness
- Lack of visibility, making it difficult to know where the fire is. Travel will be dangerous
- Fires approaching from any direction (or two directions at once)
- Embers landing around your property for many hours before or after the main fire front has passed
- Roads blocked by fallen branches, powerlines and congested with emergency vehicles.

How you might feel

- Confused
- Disorientated (don't know where you are)
- Unable to breathe properly
- Scared
- Thirsty and hungry
- Tired.

EXPECT DISRUPTIONS TO SERVICES

Disruptions to telephone service, internet and mains power and water are common during a fire or on a fire risk day. Be prepared:

- Don't rely on mains power and water.
  - Power failure will impact you and your use of:
    - cordless phones.
    - remote control garage doors, electric gates or similar devices.
    - computer and the internet.
    - air conditioners and coolers.
    - electric pumps.
- Don't rely on one source of information for warnings. Use multiple sources.

Be mentally prepared

Preparing yourself mentally is very important. In a bushfire you will need to stay focused, avoid taking risks, and make critical decisions under stress.

You also need to consider how you will cope mentally not just over a short period of time but over a longer period, whether that is a string of hot days, a long-running fire or a long fire season.

Maintaining a 'state of alert' over a long time can make your mind and body fatigued, affecting your efficiency and ability to make good decisions.

The best way to prepare yourself mentally is to have a written and practised plan that everyone in your household understands and has agreed to.

Speaking to people in your area who have experienced bushfire in the past, or looking at written material or videos online may help you to prepare.

A special note about children

It is understandable that you want to keep your family close in a stressful situation, but if you are planning to stay and defend your home during a bushfire, it is strongly advised that children are well away from the threat.

There are several reasons for this:

- Children are more vulnerable to stress than adults.
- Although children may appear to cope in a crisis, their reaction to the event may not be evident until a much later time.
- Reactions to crisis can lead to children becoming unable to cope with ordinary problems, suffering sleep problems and nightmares, and having relationship issues with parents, siblings and friends.

If you plan to stay and defend, make sure your children are looked after by someone who is well known to them and who they feel safe around. Remain positive and reassuring and ensure that you plan regular communication with your children to let them know that you are safe.

If at any time you are worried about your mental health or the mental health of a loved one, call Lifeline 13 11 14.

Look after your physical health

Heat stress

Heat stress can make you confused and weak. In a bushfire, you can become dehydrated or heat-stressed without being aware of it. It is important to stay hydrated even if you don't feel thirsty, and be vigilant for symptoms of heat stress such as cramps, fatigue and dizziness.

Prevent heat-stress by:

- drinking plenty of water or electrolyte sports drinks
- avoiding alcohol and fizzy drinks
- regularly splashing your face with water to keep cool
- placing wet towels over your upper arms
- moving in and out of the shade and the house where possible
- loosening clothing to circulate air flow. Remove head protection temporarily
- getting some rest when safe to do so.

Heat stroke

Managing heat stress is important because it can lead to heat stroke – a serious, even potentially fatal condition.

If someone is affected by heat stroke, call 000 immediately. Move them to a shaded area (if safe to do so). Remove excess clothing, damping them down and fanning air over them.

Give small sips of fluid and place wet towels to the back of their head and armpits.

For more information about bushfires visit cfa.vic.gov.au or
call the Victorian Bushfire Information Line (VBIL) on 1800 240 667
or via National Relay Service on 1800 555 677

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