



VULCANTM
WILDFIRE MANAGEMENT

#WildfireReady



In association with





#WildfireReady helps individuals and communities coexist successfully with wildfires, by developing knowledge, systems and processes which foster preparedness and acceptance of wildfires

“There is always a part of my mind that is preparing for the worst, and another part of my mind that believes that if I prepare enough for it, the worst won’t happen.”

*Kay Redfield Jamison,
Clinical Psychologist*

Becoming #WildfireReady

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Ensuring your Home Ignition Zone is safe from ignition by direct flame contact and ember attack is vitally important

REPORTING A WILDFIRE - What information to provide Emergency Services

- Call without delay .
 - › While dialing think about the critical details you need to convey.
- Begin with your name and phone number.
- What is the situation; i.e. wildfire.
- Exact location of wildfire.
- Best access for emergency responders to reach the wildfire safely.
- Potential of the fire; i.e. lives threatened, property in danger.
- Any other critical information.
- Follow the dispatchers instructions that are given.

HAVE THESE EMERGENCY NUMBERS IN YOUR PHONE OR CLOSE TO HAND

LOCAL FIRE SERVICES DISPATCH	LOCAL HOSPITAL
FPA MANAGER	OTHER HOSPITAL
FPU WARD LEADER	METRO AMBULANCE SERVICE
ESTATE/FARM MANAGER	OTHER AMBULANCE SERVICE
SECONDARY CONTACT	POWER UTILITY

QUESTIONS TO ASK / ACTIONS TO TAKE - In the event of a Wildfire

- What do the **Fire Danger Ratings** mean for you and what actions will you take?
- What **precautions** do you need to take before fire season?
- Do you **have a plan** for your household, your animals and your property?
- How will you **safeguard** your family & defend your property, before the fire reaches you?
- If there is a wildfire in your area, what is your **trigger** to evacuate?
- Where will you go? What **route** will you take?
- What is your **alternative** if the wildfire surrounds your area?
- What **items** will you take with you?
- What will you do for your **pets or livestock**?
- Who do you need to **keep informed** of your movements?
- Is there **anyone else** in your community who you need to help or check up on?
- How will you **stay informed** about warnings and updates?
- What will you do if you get **trapped** by a wildfire?
- What to do after the fire front passes?

*You will find the answers in the chapters **Stay Informed**, **Check**, **Protect** and **Survive**.*

Fire Danger (FDI/FDR) Ratings

The **Fire Danger Index** or **Rating** predicts the fire behaviour should a fire start and also how dangerous attempting to extinguish the fire would be.

The higher the rating, the more dangerous the conditions.

On **Orange** and **Red** days
NO FIRES should be lit.



INSIGNIFICANT

- Expect cool conditions, high humidity.
- **The fire danger is low. Fires are not likely to ignite.**
- No precautions are needed.

LOW

- Expect cool and low to moderate wind conditions.
- **Fires likely to ignite but spread slowly.**
- Prescribed burns may be allowed on the condition that reasonable precautions against fire spreading are taken and burn permits have been obtained.

MODERATE

- Expect warm, dry and possibly windy conditions.
- **Fires ignite readily, spread easily but most likely to be controlled in these conditions.**
- No fires are allowed in the open air, except those that are authorised by the Chief Fire Officer, and those in designated fireplaces.
- Authorised fires may include prescribed burns where permit has been obtained.
- Be alert and consider your options if a wildfire occurs.

HIGH

- Expect hot, dry and possibly windy conditions.
- **Fires ignite readily and spread very rapidly.**
- **Fire spotting may occur.**
- No fires are allowed under any circumstances in the open air.
- Be alert if a wildfire occurs, review your wildfire plan including preparation and evacuation procedures.

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.**
- No fires are allowed under any circumstances in the open air.
- Be on High Alert if a wildfire occurs.
- Review your special emergency fire preparedness measures.
- Early evacuation in the case of a wildfire impacting your home is advised.

Primary Factors affecting Wildfires

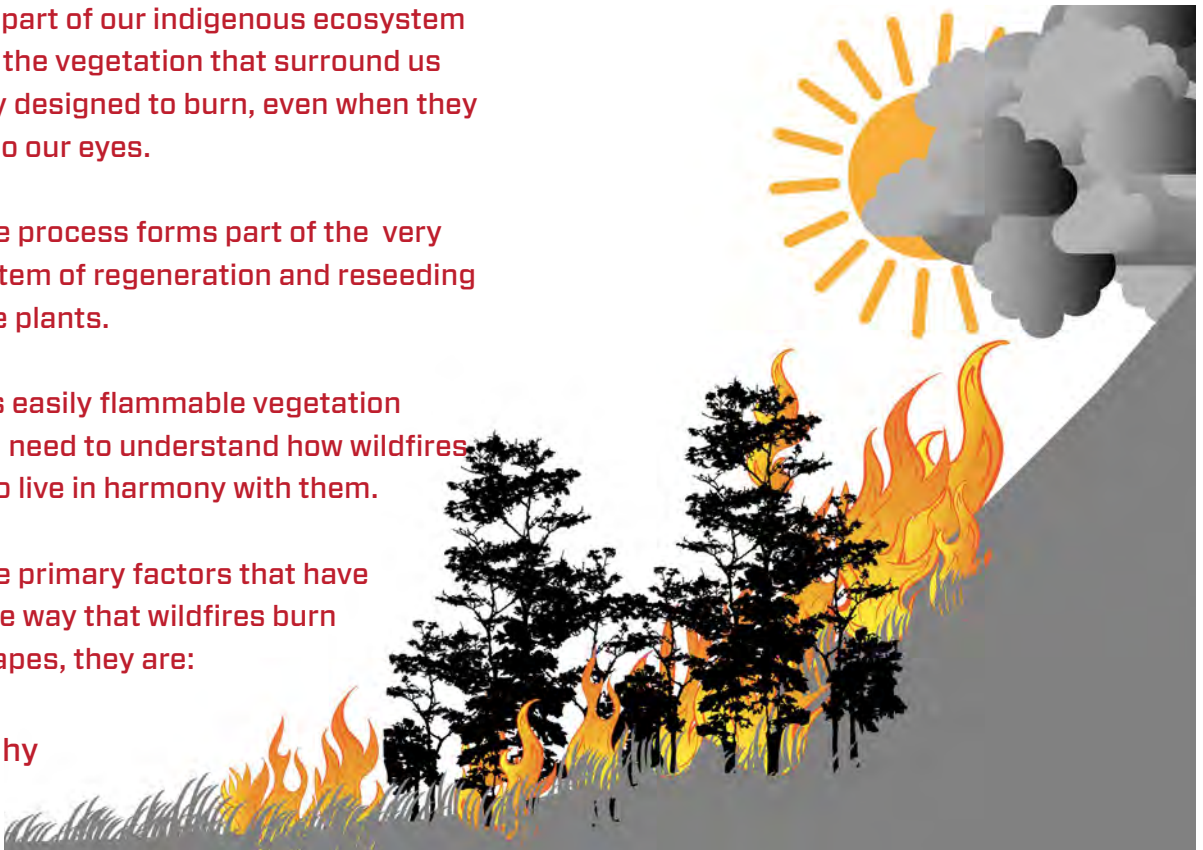
Wildfires form part of our indigenous ecosystem with the oils in the vegetation that surround us being perfectly designed to burn, even when they appear green to our eyes.

This flammable process forms part of the very necessary system of regeneration and reseedling required by the plants.

Living with this easily flammable vegetation means that we need to understand how wildfires burn in order to live in harmony with them.

There are three primary factors that have an effect on the way that wildfires burn across landscapes, they are:

- **Weather**
- **Topography**
- **Fuels**



WEATHER

- **Wind** - increases the speed that the fire moves
- **Humidity** - low humidity results in quicker ignitions
- **Heat** - dries out the vegetation making it more combustible

TOPOGRAPHY

- **Slope** - for every 10° increase of slope, fire doubles in speed
- **Kloofs / Chimneys, Saddles, etc** - fires travel more quickly up these
- **Aspect** - north facing slopes are drier and hotter, south facing more lush with vegetation

FUELS

- **Grass** - fires ignite easily and move quickly through grasses
- **Fynbos** - oils in fynbos mean it will burn even when green
- **Forest/Plantation** - large vegetation will result in large flames with lots of embers

Other factors affecting Wildfires

As well as the three Primary Factors that have an affect on wildfire behaviour, weather is the main driving force of wildfires. The main weather factors that have an impact on fire behaviour are:



TEMPERATURE



HUMIDITY

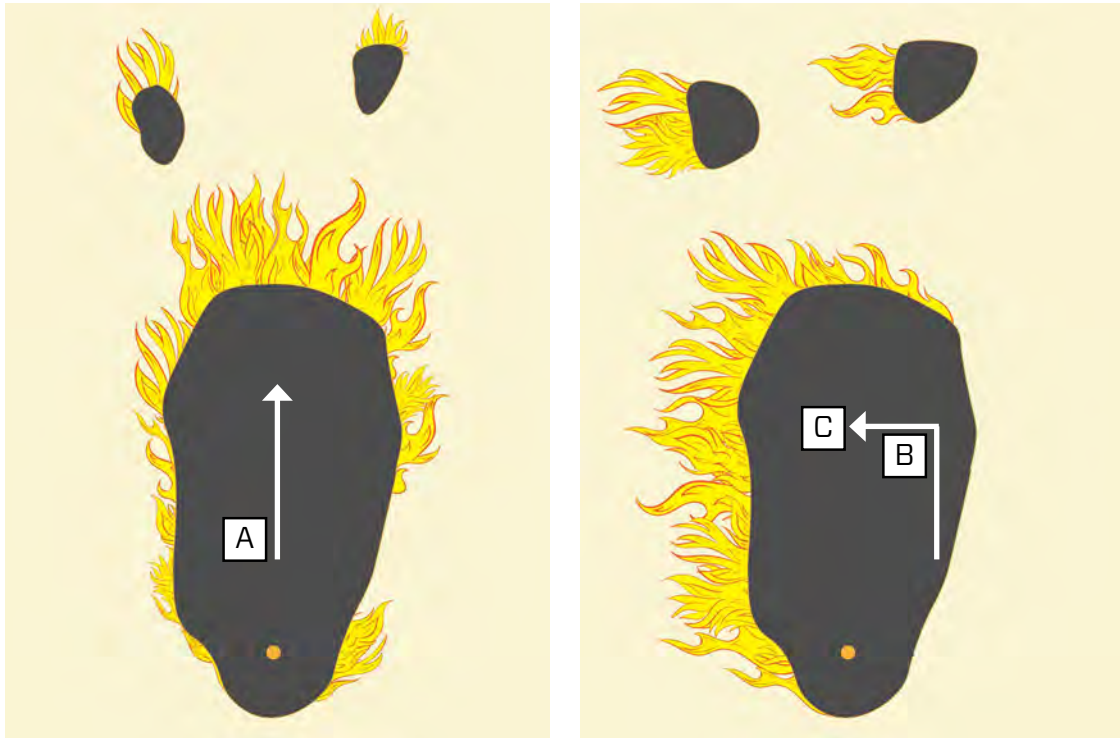


WIND SPEED

Being aware of how Wildfires can be affected by weather.

It has already been mentioned that a wildfire will move faster uphill (remember that for every 10° increase in slope, the fire doubles in speed) but wildfires are primarily driven by the weather and this can have a deadly impact if not understood properly.

In the illustration below you will see how a wind shift can affect the direction that a wildfire will burn. If near a wildfire and caught in the wrong position when a change in wind direction does occur, you can find yourself caught in front of a flaming front with little time to react.



A Fire being blown by a Southerly wind.

B Easterly wind shift.

C Western edge (Left Flank) now becomes the much wider new head of the fire.

Are you in a drought period?

Terrain.
Fires move quicker upslope.

How hot have previous days been?

Thunderstorms. Lightning can start fires and cause downdrafts

Changes in, wind direction, wind speed, wind shifts.

Will there be a sudden change in weather conditions?

REMEMBER : GENERALLY, WILDFIRES SPREAD FASTER...

- Uphill rather than downhill.
- With the wind, rather than against it.
- Where there is dry, dead plant material.
- In fine fuels such as grass, Fynbos, etc.
- Through uninterrupted and continuous fuels.

Becoming WildfireReady means following a process of...



General Wildfire Preparedness

Wildfire (veld, bush, forest, mountain fire) should never be underestimated. Remember this is a force of nature that we have limited control over. When conditions are against us, wildfire is deadly and destructive. Having respect for its power and being better prepared will help safeguard you, your household and your property.

Every year you need to know your **Check Protect Survive** to make sure you stay WildfireReady.

Check — Assess your situation and prepare for each wildfire season.

Protect — Know what to do when a wildfire threatens.

Survive — In a worst case scenario, how to evacuate and survive being trapped.

You need to plan and prepare before each and every wildfire season if you live in one of the following environments.

- Where the suburb meets veld, forest or mountain areas.
- Close to or among grass or paddocks.
- Close to or among dense or open bush.
- Within an area of veld, forest or mountain vegetation.

An emergency situation creates pressure and it's not always easy to think clearly. A written and preferably well practised **WildfireReady** plan will help you remember what needs to be done during a crisis. The planning you do needs to be realistic and flexible to adapt to different circumstances. *Think about who will be at home if a fire occurs on a weekday, a weekend or a public holiday.*

What will you do if?

- Your children are at school?
- You have visitors staying with you?
- Family members are away for work or holidays?
- Who will take over responsibility for your wildfire plan if you are away?

Prepare Your Home from Wildfire Risks

A house that can survive a wildfire is one that has been prepared well before the wildfire season started. In this section we focus on your home, however the proximity of vegetation to your home is critical and we go into more detail about this in the Prepare Your Property from Wildfire section.

With regards to your home, you need to consider.

- The **materials** from which your house is made and its **design**.
- What **modifications** you do can improve the likelihood that your house will survive.
- The number of improvements will depend on the type of house you have.
- Anywhere embers can lodge or enter your house can start a fire. **Decks, windows, doors and roof areas pose the greatest risk.**

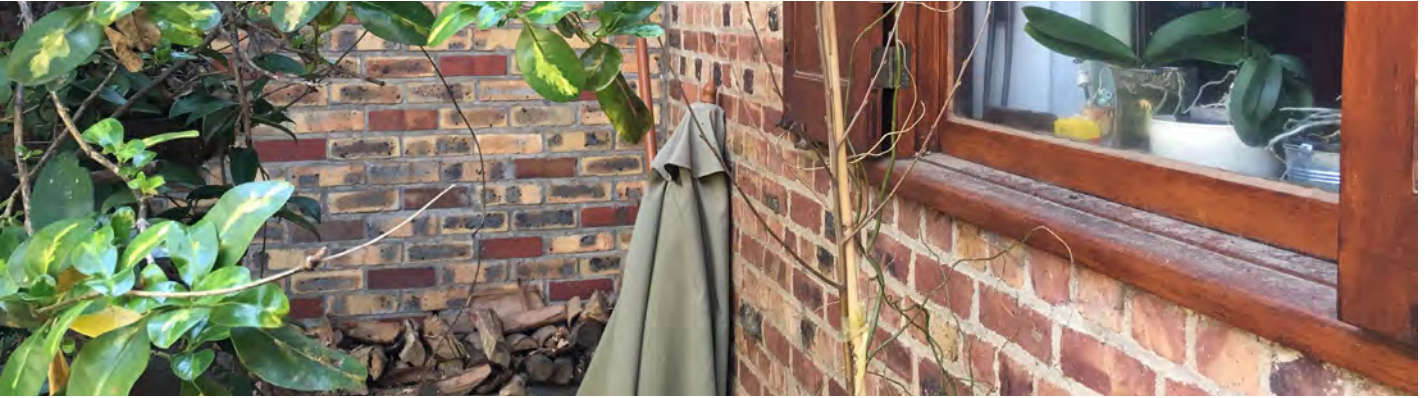


Embers are a primary cause of homes and structures catching fire during wildfires.

- An ember can be burning twigs, leaves or pieces of debris.
- Embers threaten your home when they are carried by the wind and land on or around a building.
- Embers can land on flammable surfaces, i.e. organic litter in your gutters, and then set fire to your house.
- With an active wildfire in your area, embers are a constant threat. They can fall before, during and after a wildfire passes your home.

Roof

- Clear roof and gutters of leaves and organic litter.
- Make **non-combustible fire screens** to cover external skylights
- Good **sprinkler systems** can help fight embers. Important: Seek professional advice for selecting and installing the appropriate sprinkler system for your building.
- Using **reflective non-combustible sheeting** is an effective treatment to prevent embers from entering through your roof. (Can be an expensive retrofit for existing buildings).
- **Seal gaps** to help prevent embers entering roof by using compressed mineral wool insulation. (This can be a cheaper and effective solution for existing buildings).



Windows

- Maintain window sills so there is no flaking paint or varnish. Embers lodging on combustible window sills pose a high risk.
- To eliminate any gaps, place weather stripping around the inside of windows.
- Cover all external vents with metal mesh, (not aluminium), and keep clear of debris to prevent embers from entering your home.
- Do not have large shrubs next to or under windows.
- Curtains ignite easily from radiant heat. Have a plan to take down curtains if a wildfire comes close to your home.



Decks

- Protect under floor spaces with non-combustible sheeting or metal mesh.
- Remove any combustible materials stored beneath the decking.
- Remove organic litter; dry grass, leaves, twigs and loose bark close to your house.
- Ensure you have access underneath to put out any spot fires.
- 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.
- Separate deck from the dwelling. (Will help prevent fire spread).
- If the deck is built with combustible material, non-combustible material should be placed between the deck and the house. (Will help prevent fire spread).
- Leaving gaps between decking timbers will allow most embers to fall through.
- Non-combustible decking materials are advisable in high risk areas. Use concrete stumps, metal framing and fire-retardant treated timber.



Doors

- Seal gaps around door frames to prevent embers from entering your home.
- Maintain door sills so there is no flaking paint or varnish.
- Replacing combustible door sills with a non-combustible product will reduce the chance of an ember igniting.



Do you have structures on or near a slope?

A fire will burn faster uphill. The increasing speed of the fire also increases the intensity and flames become even larger and hotter.

- Consider the placement of your structures. Take extra precautions to mitigate the threat if they are based near a slope. Use a combination of home improvement methods and clearing of the vegetation on the slope.
- If possible, avoid building on slopes and rather build on flat, open areas.

Fire Truck Access

You should never completely rely on a fire truck coming to protect your property. Remember that during a complex operation emergency responders can only respond to limited areas and homes.

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.
- If you have a water tank, your tank fittings are compatible.

Prepare Your Property from Wildfire Risks

The steps you take to reduce risks on your property will directly impact how your home will fare in a wildfire. You need to create a barrier that keeps fire as far away from your home as possible. Fire reacts to wind and slope and follows a path where fuel is located. It is vital to create and maintain low fuel areas in the Home Ignition Zone (30m) around your home.

Vegetation

All the plants, foliage and organic litter around your home are a potential fire risk. Your aim should be to manage this space around your home so you have a clear area increasing the defendable space around your home and structures.

Fine Fuels

- The thickness of a pencil or less.
- They ignite quickly and burn easily.
- Can be picked up by the wind and become embers which threaten structures.
- Branches, twigs and leaves and other fine fuels found on the ground can burn easily and accelerate the spread of wildfire.

Heavy Fuels

- These are greater than the width of a pencil.
- They take longer to ignite but will burn for longer.
- They create an extremely hot fire.
- Branches, trees and logs are examples of heavy fuels.

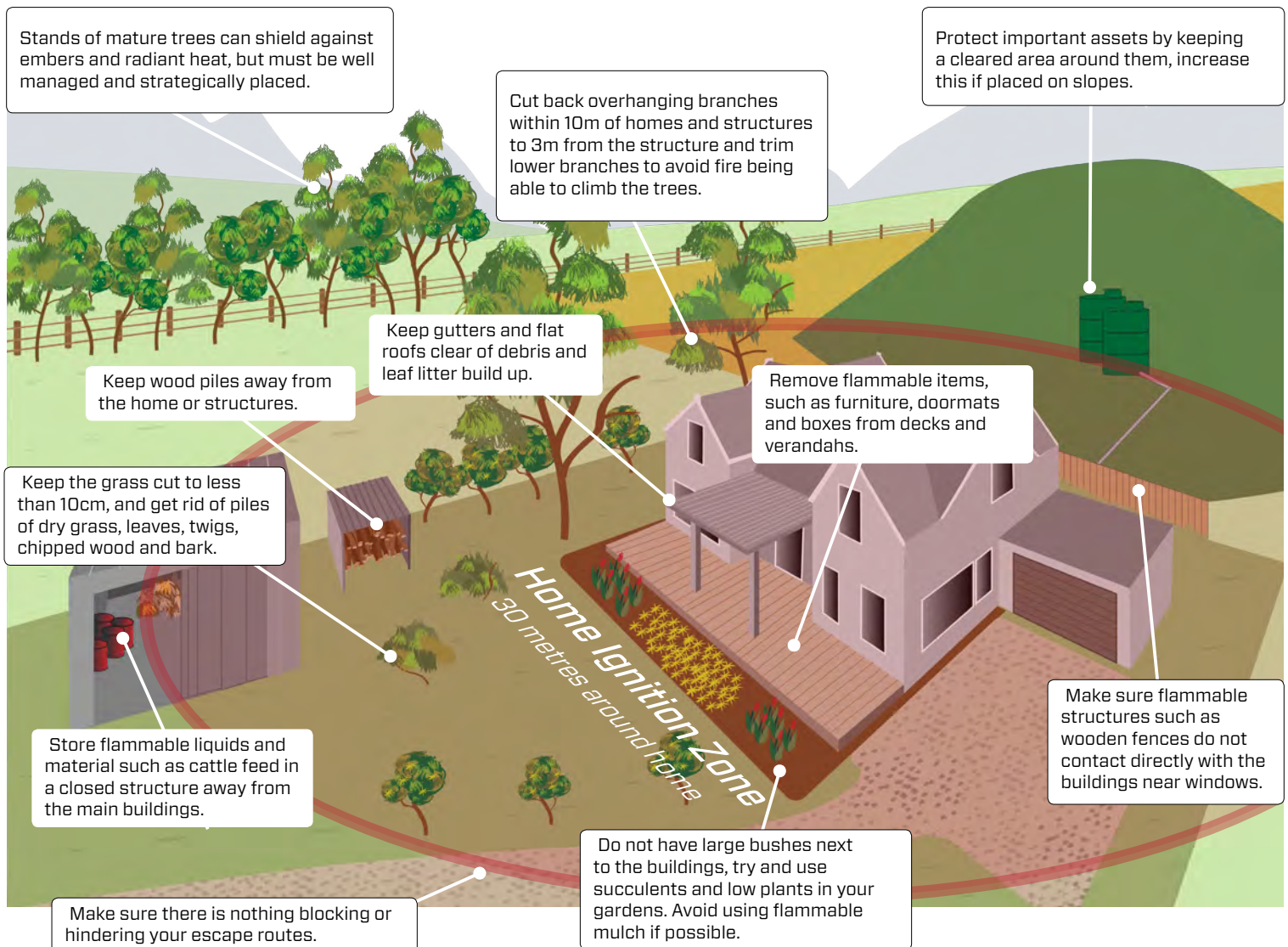


Vegetation Management

- Clear fine fuels from around your home.
- Keeping grass areas well trimmed and watered.
- Rake up and reduce leaf litter.
- Remove flammable organic litter from around your house. It is extremely dangerous within a 10 metre radius of your home, especially under windows.
- Remove or trim shrubs. There should be no shrubs over one metre next to or below windows.
- Trim tree branches overhanging your house.
- What is growing under your trees? Consider how easily fire might be able to spread from the ground into the tree tops. Removing lower branches of trees, prune shrubs so that their tops are well away from the lower branches of trees.
- Remove weeds.

Garden Design

- Use non-flammable alternatives, such as pebbles, sand or rocks.
- Retain soil moisture in garden beds. Water at night or early morning.
- If you must use flammable organic litter, (compost), apply it immediately after the wildfire season. This will allow it to break down over winter. Decomposed, it still provides good moisture retention during summer. It is less likely to ignite if watered.
- Choosing suitable plants with low flammability and locating them correctly will help reduce wildfire risk within a garden.
- Use the layout of your property to create open spaces to protect your property; these can be driveways, pools, tennis courts, cultivated soil, gravelled areas, mown lawns, grazed paddocks, dams and natural water features.
- If a structure is near a slope, clear away vegetation on the slope or use plants with low flammability.



Garden Design checklist:

- Create a defensible space within your Home Ignition Zone, i.e. safe area to defend your home.
- Remove flammable objects from around the house and other structures.
- Break up fuel continuity to reduce fire spread within the Home Ignition Zone.
- Carefully select, locate and maintain trees and under canopy.



Consider other property assets:

- Sheds or fences that you want to protect must also have a clear and defensible space around them.
- Your garage or chemical storage area location in relation to your home and other structures is an important consideration. *Should it catch fire, what are the implications on other structures? Think carefully what you store and where it is located.*
- Designate a safe place to store gas bottles, outside the home, where they will not be exposed to radiant heat.

Water tanks

If you can, install or reserve 10,000 litres 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.
- Protect it. Remove vegetation around it.
- Alternatively, use a variety of sources such as multiple smaller tanks, a dam or a swimming pool.

NO POWER, NO PUMP, NO WATER

If you rely on an electric water pump remember that you will lose access to water if the electricity goes off during a wildfire. An electric pump powered by an independent generator or a petrol/diesel pump are significantly more reliable in a wildfire situation.

Community Protection Plan and Wildfire Risks

You and your community should devise a plan for a neighbourhood safety zone. There may be options close to where you live that could protect you. Investigate these options.

The Community Safe Zone

This is a predetermined clear space for people or a community to shelter safely from a wildfire.

- This Zone is a predesignated back-up place when your home is under threat and not suitable to shelter in, and you are unable to evacuate from the area.
- The space must be carefully considered (seek advice on selecting the zone) and must be large enough for the amount of people planning on using it.
- The area must be checked annually before each fire season and any improvements such as trimming grass, removing new vegetation, etc should be made. Follow the same principles as for the Home Ignition Zone.
- Ask your local fire chief to assess the suitability of your chosen area.

Preferred Options

- A large community building, and area void of vegetation.
- A well-prepared home (yours or your neighbour's) that you can actively defend even under extreme fire conditions.

Not ideal, but if no other option exists

- A ploughed paddock or large sports field.
- A large or wide body of water (such as a beach, swimming pool, dam or river).

NOTE

You must still be protected from the radiant heat of the wildfire so your distance away from the burning vegetation must be large, at least 4 x the flame length. If at any time you might have to go into the water, lifejackets must be used by everyone. Keep the lifejackets wet so falling embers can't burn them.

REMEMBER

- Your safety is not guaranteed. Leaving early is always the safest option.
- People with special needs, such as the elderly and people with a disability, should always leave before the threat of wildfires.
- It is important that you are familiar with the Safe Zone area. Visit the area prior to each fire season.
- If it is unsafe to leave the area or stay and defend your property, and the path is clear, you should move to your pre-identified Community Safe Zone prior to the impact of a wildfire.
- Be aware that when you are travelling to your Community Safe Zone there may be heavy smoke and poor visibility.
- Remain there until the wildfire threat has passed.
- The conditions may be uncomfortable and you may be affected by heat, smoke and embers.
- Water, toilets and food may not be available at the Community Safe Zone and emergency service personnel may not be present.
- Community Safe Zones are not intended for pets and livestock.

SAFETY FIRST

The Quick Evacuation Checklist - Post this checklist, which is included separately, along with the Emergency Kit Checklist in an easily visible position so that it can be referenced when an emergency or incident occurs.

PREPARE TO LEAVE	Y/N
Stay calm, gather everyone and quickly but clearly run through your plan.	
Emergency kit in your car?	
Mobile phone plus charger and secondary phone?	
Does everyone have protective clothing on? Must cover all exposed areas and be 100% cotton.	
Do you have your pets and animals, in containers or on leads?	
Is your car facing the escape route out, packed and ready to go?	
Do you have woollen blankets (for shelter from radiant heat) in your car?	
EVACUATING	Y/N
Have you alerted someone outside the incident, who knows your area and the route you are taking, that you are evacuating and when they can expect you to make contact again?	
Do you know your escape route and back up options if primary route is cut off?	
Drive with care as visibility may be reduced by smoke and hazards in the road such as fallen trees, people and animals.	
Are your lights and hazards switched on?	

If your escape route is cut off, inform emergency services as to your position immediately.

IF YOU ARE TRAPPED IN YOUR CAR	Y/N
Informed emergency services?	
Park in area clear of vegetation and remain in vehicle.	
Use non-flammable material, bags, or the like to shield you from heat coming through the glass.	
Keep windows closed.	
Get low down away from the windows.	
IF YOU ARE TRAPPED IN YOUR HOME	Y/N
Informed emergency services?	
Maintain visibility so you are aware of what is happening outside.	
Close all doors and windows and take down any flammable material such as curtains or blinds.	
Do not get trapped inside of your home, have you got multiple exit route options from the home?	
If your home is burning and the fire has passed, have you made sure the burned ground outside is safe to move into?	

Pets and Wildfire

Decide in advance what you need to do with your pets in the event of a wildfire. The situation during a wildfire can be extremely stressful and, by not having a plan, people have died during fires trying to save their animals.



Pets Checklist

- Make a list of where you could house your pets if you decide to leave early.
- Relocate your pets early on high fire danger days to a safer area. Keep in mind that in the event of an emergency you may not be allowed home for some time.
- Make sure your pet is wearing a collar, identification tag and micro chipped.
- Make sure pet carriers are clearly labelled with your contact details.
- Emergency Kit. Stock with additional items for pets.
- Practise how you will move your pets if you leave.
- Have your vet's contact details noted in your kit emergency kit.

If you choose to keep your pets with you, it's important to confine them early.

- Pets that are normally well behaved may become fearful and nervous during an emergency. Gather them in a safe, secure place as soon as you can.
- Have wet towels to keep them cool and woollen blankets available to cover/protect them.
- Make sure they have plenty of water to drink.
- Don't let them outside after a wildfire has passed. Your pet's feet can easily burn on hot ground after a wildfire.

Dealing with pet injuries

- If your pets have suffered burn injuries during a fire, they must receive immediate treatment. Cool the burns with water for at least 10 minutes. As soon as it is safe to do so, take your pets to the nearest vet clinic or animal shelter.
- Look for the warning signs of injury such as excessive panting, salivating, pets that whine or seem agitated. In cases of severe heat stress or heat stroke, pets may stop panting and vomit. If your pet exhibits any of these symptoms, a vet should be consulted immediately.

TOP TIPS — Keeping your pets cool on hot days.

- Have fresh, cold water available at all times.
- Place ice blocks in your pet's water bowl.
- Exercise your dog in the morning or evening during the coolest temps of the day.
- Ensure your pets have shade at all times or bring them inside into a cool room.
- Wipe your pets down with a cool, damp towel or leave wet towels for them to lie on.
- Wet your dog or cat with cool water over their coat or along their tummy.
- Consider having your dog clipped if their coat is long and thick.
- Never leave your pets in a vehicle on a hot day.

Horses and Wildfire

Evacuation of Horses. Once a fire starts it can travel quickly making it dangerous for you and your horses to be on the road. Visibility will be poor due to smoke and roads will be dangerous due to spot fires, falling trees and emergency vehicles on the roads. Roads may be closed making it impossible to reach your horses or to remove horses from the property. If you have the time, move your horses well in advance before a wildfire threatens.

Horses are quite good at avoiding wildfire if two conditions are met.

- They are given enough room to move freely in a large open space
- There is minimal vegetation in the large open space.



Guidelines for Horses during a wildfire

- If you do not have a suitable paddock or clear area in which to put your horses, consider taking them to the local show grounds, pony club or a pre-designated stable yard outside of your area.
- Do not lock your horses in a stable or small area, or let them out onto the road.
- If you can't leave with your horses, put them in a large, well-grazed paddock, or series of smaller paddocks with the internal gates left open.
- Ideally, the paddock they are in should have a dam in it where the horse can seek relief from the heat.
- Remove blankets, halters, fly veils and any boots. (Gear could melt or become very hot and cause serious burns or get caught on fences).
- On high fire danger days, move your horses to your designated safer paddock area as a precaution.
- Permanently identify your horses. Identification could include micro chipping or branding.
- If your horse is difficult to catch you may consider leaving a leather halter on with identification tags.

Horses After the Fire

- They tend to recover well after a fire and appropriate treatment will soon restore them to full health.
- They may suffer facial burns and their eyelids can be very swollen to the extent where they cannot open them.

A horse suffering from burns requires prompt veterinary attention but there are some ways to make them more comfortable until the vet arrives.

- Sponge affected areas with cold water.
- If legs are affected try standing your horse in a bucket of water to reduce pain and swelling.
- Any first aid administered should be anti-inflammatory.

Livestock and Wildfire

Plan ahead. Consider moving livestock before a wildfire threatens. Even if you have a plan to evacuate, have a back up option if you can't leave in time.

PROTECTING YOUR LIVESTOCK

- Your plan should be safe, easy and fast to carry out.
- Identify low risk areas into which livestock can be moved. If your livestock are on property in high-risk areas where you don't live, consider either moving them to a safer location during the fire season or leaving them in well grazed paddocks with supplementary feed.

Create a low risk area

A core part of protecting livestock from a wildfire is to create one or more 'low risk areas' to which you can move your animals early on days of high fire danger. Such areas may also act as a firebreak and work best when they are:

- Located centrally and with easy access.
- Located away from areas of thick bush.
- Large enough to allow livestock to move far enough away from the fire.
- Protected by roads or ploughed firebreaks.
- Free of leaf, twigs and bark.
- Have enough drinking water.

Properties with large numbers of stock may need several low risk areas. Cater for each group of animals, as each may need a specific plan.



In choosing a location you should think about terrain, accessibility, the most likely direction of the wildfire threat, the prevailing winds in the summer months and proximity of vegetation. These low risk areas must be available at all times during the fire season and able to be moved to at short notice.

Animal behaviours

- Sheep often refuse to move once conditions get very hot, so they should be moved early in the day.
- The mobbing instincts of sheep could prevent them moving away from a fire if they are kept in the open, so more confined areas would be more suitable.
- Cattle are skilful at moving to avoid fire, so they may be kept in low risk paddocks with relative safety.
- Horses tend to gallop through flames or around their edges, and stand on the blackened, previously burnt area and remain there until the fire has passed.



Evacuating livestock

- Your livestock fire plan may be for early evacuation of livestock to a safer area, but evacuations present unique problems.
- Make arrangements well ahead of time for a place to temporarily relocate your animals.
- Identify several possible retreat routes from your property in case fires block your escape.
- Decide in advance which animals you will evacuate and make sure they are accustomed to being transported.
- Identify a possible containment area where stock can be fed after a fire. In addition to containing stock, this also reduces the risk of weed spread across the property following a fire.

FENCES - SPECIAL MENTION

- Be sure that boundary fences are stock proof even without electricity. The power to electric fences often goes out during a bushfire.
- Avoid cutting internal fences to allow stock to move with the movements of the fire. Containment in a secure, low risk, area is more suitable and should reduce stock confusion and distress as the fire front passes.
- Do not cut fences along roadsides. Loose stock can cause accidents during fire, particularly when visibility is low due to smoke haze. Managing stock after the fire front passes can be difficult.

Defending your Property from Wildfire

Can I protect my home safely? This will be dependent on your preparation before fire season. Are you prepared, do you have the right equipment and the personal capacity? You need to make a calm, rational and safe plan of action before wildfire season. You will also need to be flexible with your plans to suit the situation. Have more than one option based on the time you have to react and the severity of the wildfire. **What will you do?**

A	Evacuate immediately and rely upon your pre-season preparation?	☒
B	Prepare and then evacuate before the fire hits?	☐
C	Prepare and stay to defend your property?	☐



WILDFIRE - WHAT TO EXPECT

- Wildfires can be a terrifying situation.
- Strong, gusty winds and intense heat will make you tired quickly.
- Thick, heavy smoke will sting your eyes and choke your lungs making it 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.



A Evacuate immediately and rely upon your pre-season preparation?

- This is your safest option.
- Your home will stand a good chance if you have prepared before the fire season.
- Consider alternative options if your escape gets cut off. Where can you shelter safely? As part of your plan, you need to decide what you will do if you cannot leave. Many people have been caught out thinking they had more time to act before the wildfire impacted.

B Prepare and then evacuate before the fire hits?

- Wear protective clothing and footwear.
- If time permits block the downpipes, use a hose to fill the gutters with water.
- Remove flammable items in close proximity to structures; doormats, furniture from decks, outside cushions, boxes, litter etc.
- Close all doors and windows (if you are evacuating do not forget to lock the doors).
- Leave the front, and any other access, gate open.
- Take down curtains (these can ignite from radiant heat).
- Wet down any area of the home which can ignite easily, e.g. wooden decks, plants etc.
- Turn off the gas supply. Designate a safe place to store gas bottles, outside the home, where they will not be exposed to radiant heat.
- Seal any gaps between the doors and floor using wet towels or similar items.
- Switch on garden sprinklers around the home.
- Designate a time when you will leave. Allow yourself enough time so you don't get cut off by the fire. The longer you stay the more roads will be blocked by fallen branches, power lines and emergency vehicles.
- Develop a home/business fire escape plan and make sure everyone in the family/business gathers at an agreed meeting place outside.

C Prepare and stay to defend your property?

Planning to stay and defend is a big decision and you must have thought this through before wildfire season and have a plan in place to do this.

For some, defending a property is a back up option (if they are trapped by fire). Others will make a decision based on the severity of the Fire Danger Rating and their knowledge of wildfire behaviour.

Remember, wildfire is extremely dangerous especially on high fire danger rating days. Fire behaviour will be extreme and on these days you **MUST** evacuate.

People get hurt and die in wildfires even if their property is **WildfireReady**.

You must adopt a SAFETY FIRST attitude



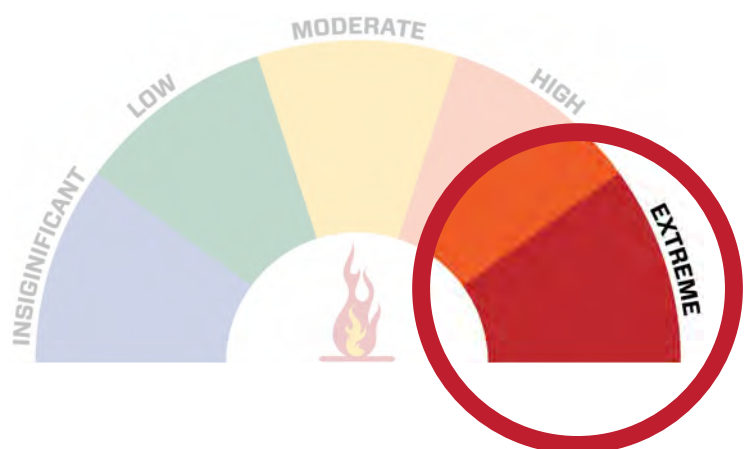
Preparing and staying to defend your property?

CAUTION

- Reassess your decision to defend your property.
- Always consider if your circumstances have changed.
- On RED days of Extreme Fire Risk the safest option is to evacuate.
- Leaving late when fire is close is extremely dangerous.
- Do not expect a fire truck to be able to assist you.

DO NOT STAY if

- It is a high fire danger rating day.
- If you have not prepared your property before the fire season.
- You have asthma, a heart problem, other illness/disability.
- Have a physical or intellectual disability, emotional or mental health problems.
- You are sick, elderly, a child less than 16 years old.



Remember the **Fire Danger Index** or **Rating** predicts the fire behaviour should a fire start and also how DANGEROUS attempting to extinguish the fire would be.



If you stay

- Defending a home requires at least two fit and determined adults.
- Each situation varies but if you are going to rely on water, you will need at least 10000 litres of water and appropriate firefighting hoses and pumps.
- The main cause of death in wildfires is radiant heat, so it is important to take shelter as the temperature associated with the fire rises.
- Fill buckets and baths with water. Metal buckets are best as plastic ones can melt.
- Mops, when soaked in water, 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. 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.
- Torches. Use a head torch to maintain visibility and leave a torch in the roof space to check for embers. Don't forget to set aside plenty of spare batteries.
- Do not expect a fire truck.
- 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 animals inside.
- As the wildfire approaches there may be embers falling. While still outdoors, you will need to extinguish them as best you can.
- Turn on the sprinkler system if you have one.
- When it gets too hot you will need to go inside to protect yourself from radiant heat.
- Take firefighting equipment inside with you, including connections and hoses.

SHELTERING IN YOUR HOME

- As the fire passes it will be dark and very noisy.
- The sky will turn black.
- Stay in a room where you can see out of the window.
- Keep checking for embers in the roof space and elsewhere in your home
- Keep hydrating and cool by splashing your face with water.
- Make sure everyone in the family knows two ways to escape from the room you choose to shelter in.
- Expect to remain inside for at least 20-30 minutes.
- Remain vigilant after the fire has passed.
- Never return to a burning building for any reason, you could die.

Evacuate from Wildfire

You should never wait and see what happens during a wildfire. 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.

Recommendation to evacuate

- Fires can start suddenly; you might not get an official warning.
- You should not rely on receiving one.
- On high fire danger days, when you can, look outside to check for signs of fire.
- Listen for alerts and warnings on local radio and reliable social media sources.
- Listen for sirens in the area and look around if you hear them.



Wildfire can move faster than you can

- Leaving early is by far the safest option.
- Include the 'Getting ready to go' steps in your plan.
- 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.
- 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 wildfire 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.
- If you cannot see – don't drive! Wait for conditions to change or seek shelter.

Fires can start and spread on any day during summer, but also during the cooler months depending on weather conditions. Climate change is having a major effect on wildfire ignitions during previously unseasonal times. It's up to you to monitor warnings and stay aware of your surroundings.

The decision to leave?

Your decision on when to leave because of a wildfire threat is the most important decision you will make. Carefully read the information about Fire Danger Ratings and consider your level of risk. *The Fire Danger Rating should be your trigger to enact your plan.*

Expect the unexpected

- What if you have teenage children home alone?
- Children at a friend's place or you don't have access to the family car?
- 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.

Evacuate

- 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.
- Pack your Emergency Kit.
- Position car in the driveway facing out or on the side of the road.
- Remove any materials that could burn easily from around your house.
- Leave sprinklers on around your home.
- Evacuate as early as you can. Do so in a calm and considered manner.



Trapped by wildfire

If leaving the high risk area is no longer an option, there may be options close to where you are that could protect you. Your safety is not guaranteed but you need to know how best to survive.

Remember that radiant heat is a killer. You are advised keep a solid object between you and the radiant heat from the fire.

Primary Shelter options

- A well prepared and safe home (yours or your neighbour's).
- Designated community safety zone.

Back up Shelter options

- Stationary car in a clear area.
- Ploughed paddock or very large open space void of fuel.
- Large body of water (i.e. ocean, large dam, large river etc).

DO NOT shelter in a dam, swimming pool or 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. It can take a while for the flame front to pass and in deeper water you may not be able to stay afloat away from the edges and could drown.

Surviving being Trapped by Wildfire

While in your vehicle

- Stay calm.
- Park your vehicle in a large area clear of vegetation.
- If possible, park behind a barrier such as a wall or large rocky outcrop.
- If possible, park off the roadway and turn hazard lights on.
- Stay in the car and tightly close windows and doors.
- Cover yourself with a woollen or 100% cotton blanket or jacket.
- Lie on vehicle floor, or get as low down away from the windows as is possible.
- Drink water to prevent dehydration.
- Use your cell phone to call emergency services.



While on foot

- Stay calm.
- Move to an area clear of vegetation; a ditch or a depression on level ground if possible.
- Move sideways across slopes, DO NOT attempt to outrun a fire up slope.
- Stay away from kloofs, saddles and the edges of slopes.
- Lie face down, as low down as possible, with your head away from the approaching fire, cover up your body and REMOVE ALL synthetic clothing.
- Keep your faced pressed to the ground and protect yourself from superheated air (this can burn your airways and result in death) by covering your mouth with 100% cotton and taking shallow breaths.
- Use any available heat barriers such as large rocks, etc.
- Use your cell phone to call emergency services.
- In LIGHT fuels with a LOW flame height you may be able to move through the flames into the already burned area.
- Choose a section of the fireline where the flames are less intense; where there is less vegetation or that is more rocky.
- If you move through the flames, move quickly but carefully while holding your breath.
- REMEMBER that after a fire the burned area can still retain a lot of heat.

While in your home

- Stay calm, keep your family together.
- Use your cell phone to call emergency services.
- Maintain visibility to know what is happening outside with the fire.
- Fill sinks and tubs with cold water. Have buckets filled and ready to use.
- Keep doors and windows closed, but unlocked.
- Have more than one way out in case structure catches fire.
- Stay inside your house.
- Stay away from outside walls and windows.

If your house catches fire while you are inside

- Close the door to the room that is on fire. Fire requires oxygen to burn, closing the door will limit the oxygen the fire is getting.
- 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 the already burnt ground as soon as it is safe to do so. Make sure the burnt area has cooled down before you do this and be careful not to fall into hot ash pits from burned out root systems. These appear as areas of white or pale grey ash.
- Drink water to prevent dehydration



After the fire has passed

- Exercise extreme caution before deciding to go outside.
- 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.
- Beware of falling trees!

Patrolling and check for burning embers

- Inside the roof.
- Under the floor boards.
- Under the house.
- On verandas and decking.
- Around window sills and doors.
- In garden beds and compost heaps.
- In wood heaps.
- In sheds.



Expect disruptions to services

- Disruptions to telephone services, internet, mains power and water are common during a wildfire.
- Don't rely on mains power and water pressure.
- Power failure will impact your use of:
 - » cordless phones.
 - » remote control garage doors and electric gates.
 - » computers and internet.
 - » air conditioners.
 - » electric pumps (especially relevant to water for protection).

By becoming **WildfireReady** you are taking important steps to reduce the chances of a wildfire damaging or destroying your home and your precious possessions.

The more your neighbours or members of the community around you adopt the same approach, the greater your chances of reducing your risk of loss.

Become a champion for **WildfireReady** in your community.

Lead by example.

Go to **www.wildfireready.org.za** for information downloads and helpful tips.

Alternatively contact us to help you lead by example.



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