

I'M SAFE – should I respond to an incident?

Illness or Injury	Am I sufficiently recovered ?
Medication	Am I under the effect of any medication ?
Stress	Am I under severe stress from work or personal worries?
Alcohol or Drugs	Am I under the influence or badly hung over?
Fatigue	Am I tired and not adequately rested?
Expertise	Am I currently competent ?

LACES

Firefighter

Lookouts	Everybody looks out for everybody else
Awareness	Everybody is aware of the current and anticipated behaviour of the fire and other incident hazards and precautions
Communications	Everybody speaks up about what is happening and their concerns at the incident and everybody listens
Escape Route	Everybody has an 'out' planned and agreed
Safety Refuge	Everybody helps everybody to survive. Everybody supports the decision to get clear of a hazard

Crew Leader

Lookouts	Assign a "lookout" to a safe vantage point in communication with crew leader if appropriate
Awareness	Terrain, weather, fire behaviour, the task and nearby activities
Communications	Maintain suitable radio or other contact
Escape Route	Suitable escape route/s checked and known by all crew
Safety Refuge	Suitable, large enough, close enough and free of hazards

Urine Chart

HOW DEHYDRATED ARE YOU?

For frontline fire fighting, at least 1 litre of fluid should be taken every hour

DARK YELLOW

Highly Dehydrated

- Drink a large bottle of water immediately!

BRIGHT YELLOW

You are still seriously dehydrated

- Drinking more now will make you feel a lot better

YELLOW

Moderately dehydrated

- You lose fluid on a regular basis throughout the day
- Drink more water to get hydrated

LIGHT YELLOW

Almost there

- Get some more water in your system
- Stay hydrated and healthy!

CLEAR

Great job

- Now don't let yourself get dehydrated
- Drink at least 8-12 large glasses of water throughout the day

CAFFEINATED AND SUGARY DRINKS AND ALCOHOL DEHYDRATE – LIMIT YOUR CONSUMPTION

You can have a sport drink to supplement electrolytes. They should be taken at the ratio of 1 sports drink to 10 equivalents of water.

Approved by the NSW Ambulance Service

Personal Protective Clothing (PPC) 1

Garments must not be modified or changed

Bush fire personal protective clothing to be worn:

- helmet, correctly marked, chin strap and neck protector
- non synthetic undergarments
- two piece uniform
- boots
- non synthetic socks

To be carried and used as required:

- Winter Yellow Jacket or Black Woollen Jacket
- smoke goggles
- smoke mask or cloth
- bushfire flash hood
- gloves
- water bottle

It is advisable to carry:

- personal first aid kit, medication and sunscreen
- matches
- knife
- compass
- small torch
- authority card
- pocket book, note book and pen
- personal requirements

Note: New jackets will have epaulettes and two pockets. Name, rank, qualification/s and brigade name are to be sewn onto the pocket flaps.



Fire Status

Going	Any fire spreading on one or more flanks or fronts that does not have control strategies in place for entire perimeter
Being Controlled	Effective strategies are in operation or planned for the entire perimeter
Contained	Whole of fire perimeter behind identifiable control lines. Active fire may be located inside perimeter
Patrol	The fire is at a stage where firefighting resources are only required for patrol purposes. Major re-ignition is unlikely
Out	The fire is at a stage that allows its removal from the list of current fires

Bush Fire Classification

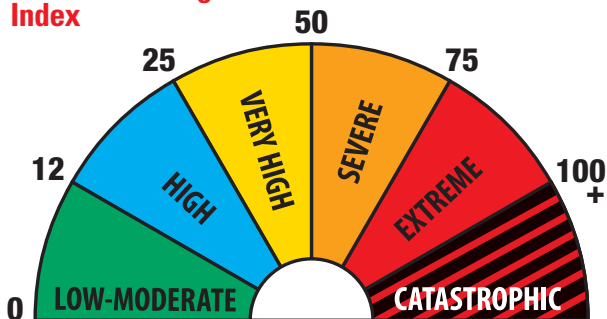
CLASS ONE	A bush fire under the control of the responsible fire authority, whether or not incidental/low level assistance is provided by other agencies
CLASS TWO	A bush fire which by necessity involves more than one agency and where the Bush Fire Management Committee Fire Classification Group have appointed a person to take charge of firefighting operations
CLASS THREE	A major bush fire where an appointment has been made or is imminent under provisions of Section 44 of the Rural Fires Act, 1997

A declaration under s44 of the Rural Fires Act is when the Commissioner takes charge and appoints an Incident Controller when a bush fire has assumed or is likely to assume such proportions as to be incapable of control or suppression by the local fire fighting authority. It may also be declared "pre-emptively" when conditions are conducive to the outbreak of a bush fire

The area declared may be defined as:

- one or more Rural Fire Districts
- one or more Local Government Areas which would include the Fire District/s
- an area defined by geographical or man made features

Forest Fire Danger Index

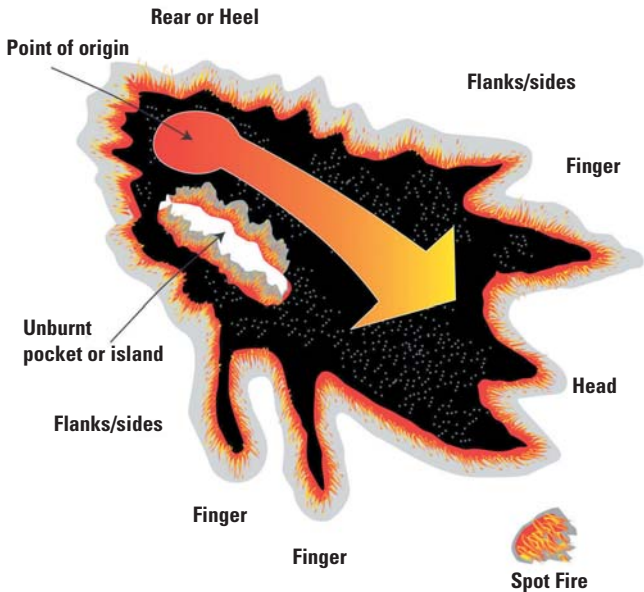


FIRE DANGER RATINGS

Category	Forest FDI	Equivalent Grass FDI
CATASTROPHIC	100 +	150 +
EXTREME	75 - 100	100 - 150
SEVERE	50 - 75	50 - 100
VERY HIGH	25 - 50	25 - 50
HIGH	12 - 25	12 - 25
LOW-MODERATE	0 - 12	0 - 12

Parts of a Bush Fire

Within the perimeter there may be burning areas, smouldering areas and blackened areas as well as pockets of unburnt fuel. The point of origin may readily be identified or it may require fire investigation to determine the location.



Bush Fire Definitions 1

Fireground	Area affected or likely to be affected by fire
Strategies	A statement detailing how an objective is to be achieved, determined by the Incident Controller
Tactic	Tasking of personnel and resources to implement the incident strategies. On larger fires normally determined at division or sector level
Ground Fire	A slow burning fire, burning underground in fuels such as peat or humus
Surface Fire	A fire that travels above the surface in grass, low scrub, leaves and litter
Crown Fire	A fire, usually fast moving, burning in the crowns of the trees and supported by fire below in the ground fuel
Spot Fire	Isolated fire started ahead of the main fire by sparks, embers or other ignited material, sometimes a distance of several kilometres
Direct Attack (Offensive Strategy)	A method of suppression where wet or dry firefighting techniques are used right on the fire edge. The fire edge then becomes the containment line
Parallel Attack (Offensive Strategy)	A method of suppression in which the fireline is constructed approximately parallel to and just far enough away from the fire edge (heat and smoke) to enable fire fighters and equipment to work effectively and safely
Indirect Attack (Offensive Strategy)	A method of suppression where backburning is used within an area defined by prepared control lines, generally existing, which may be a considerable distance ahead of the fire

Bush Fire Definitions 2

Backburning	Firefighting strategy, as part of an overall plan. A fire started intentionally along the inner edge of a fireline to consume the fuel in the path of a bush fire, either in a parallel attack or an indirect attack to widen an existing containment line.
Observe and Patrol (Defensive Strategy)	Fire in remote, rugged or inaccessible areas not causing any immediate danger, mapped and with containment strategies and fall back strategies established. Prepare for fire impact. Air attack or heavy plant may also be deployed.
Line Defence (Interface Defensive Strategy)	Fire threatening people and/or property where an offensive strategy is impossible due to extreme fire conditions or lack of resources. Use of hose lines or controllable tactical backburning to create a sufficient break to defend the asset. Advise/warn people at risk and consider recommending evacuation.
Ember Defence (Interface Defensive Strategy)	Fire producing sufficient embers to threaten people and or property where an offensive strategy is impossible. Use of hose lines to extinguish small fires as and when they occur. Advise/warn people at risk and consider recommending evacuation.
Backstop Defence (Interface Defensive Strategy)	Fire threatening people and or property where an offensive strategy is impossible as there is no defensible space around the buildings. Take safe refuge whilst fire impacts area, then move back after the fire passes to put out the fires. Relocate, evacuate and/or warn people at risk.
Hazard Reduction	Removal of combustible fuels by hand clearing, machine clearing or prescribed burning.
Prescribed Burning/Burn Off	The controlled application of fire under specified environmental conditions to a predetermined area and at the time, intensity and rate of spread required to attain planned prescription.

Hand Signals

Words of command and common hand signals are given below:



Water On

Arm raised above head vertically fist clenched.

Increase Pressure

Arm raised above head vertically and dropped to side. Each signal requires pump pressure to be increased by 100kpa.



Water Off

Arm extended horizontally to the side and swung across the body.



Decrease Pressure

Arm Extended horizontally to the side and dropped to the side. Each signal requires pump pressure to be reduced by 100kpa.



Make Up Equipment

Both arms extended to the side horizontally and held for a few seconds.



Flush Out

Both arms raised above the head.



Report to me

Left hand placed on helmet and right hand points to crew member

Communications Definitions

Affirm	Yes/correct
All stations	General call to all stations on a network
Cancel	Ignore my previous instruction or request
Clear	End of my transmission, no reply expected
Clear to you	End of transmission to you, will now transmit to another unit
Confirm	Verify this statement
Copied	Message received and understood
Correction	Incorrect message, the correct message is...
Disregard	Ignore my previous statement or information
ETA	Estimated time of arrival
ETD	Estimated time of departure
Incident call	Report of a new incident
Go ahead	Permission to transmit or reply
Grid	Map grid references to follow
I say again	Repeating my last transmission
Negative	No/incorrect/permission not granted
Nothing heard	No reply to transmission received
Over	Transmission is over, a reply may be transmitted
Read back	I repeat all or part to confirm your last message OR you repeat back the key points of the last message I sent you
Roger	Message received and understood
Say again	Repeat all or part of your last transmission to me
SitRep	Situation report to be transmitted
Stand by	I must pause, will transmit when ready
Understood	Message understood

Bush Fire Survival if in a building

- **Full personal protective clothing (PPC) correctly worn and fastened**
- Be aware of your surroundings
- Be aware of current weather conditions and fire behaviour
- A substantial building can offer the best shelter during the passage of a bush fire
- **Bush Fire Coordinating Committee policy recommends that capable persons should not be evacuated from properly prepared dwellings**
- **Last minute evacuations should be avoided**

- Don't panic or cause others to panic
- Know the whereabouts of all crew and/or family and ensure their safety
- Fill bath and sinks with water and strategically place static supplies of water externally (for firefighting)
- Ensure gutters are clear, then block and fill with water
- **Turn off electrical and gas systems**
- Close all doors and windows and seal gaps with towels or similar material
- If possible have a battery powered radio and torch in working order
- If time permits, clear away from around the building as much flammable material as possible
- Stay outside for as long as possible to extinguish small outbreaks
- Shelter in the house away from the approaching fire
- Once the fire has passed, move outside and extinguish any hot spots and check the building for any signs of fire, especially the roof and under the house

Bush Fire Survival if on foot

- **Full personal protective clothing (PPC) correctly worn and fastened**
- Be aware of your surroundings, note areas of little vegetation, natural shelter places, escape routes and refuge areas
- Be aware of current weather conditions and fire behaviour
- **Assess the risk of fire overrun**
- **Don't put yourself in this position in the first place – anticipate and avoid hazardous locations – use the LACES checklist**

- Don't panic or cause others to panic
- Don't run through dense smoke, you may run into something, fall down or over a cliff
- Don't run through a fire which exceeds 1.5 metres high x 1.5 to 3 metres deep
- Don't try to outrun a fire uphill, for each 10⁰ of slope the fire roughly doubles in the rate of forward spread, preferably move across the slope out of the path of the fire
- **Seek bare or burnt ground or an area of little vegetation**
- **Seek shelter by using a track, culvert, drain, wheel rut, cave, rock ledge, large rock or fallen tree**
- Check that there are no air spaces under rocks, fallen trees, etc. which would allow the fire to be channelled underneath
- Shelter may be sought in large dams, rivers and streams
- **Avoid elevated water tanks**
- If time permits, clear away or burn as much flammable material as possible
- Shelter on the side furthest from the path of the fire
- Lie face down
- Dig into the ground if possible, cover your body as much as possible to protect against the radiant heat
- A cloth or handkerchief, placed over your mouth and nose gives further protection
- Limit breathing as much as possible
- The air closest to the ground is the freshest

Bush Fire Survival if in a vehicle

- **Full personal protective clothing (PPC) correctly worn and fastened**
- Be aware of your surroundings, note areas of little vegetation, natural shelter places, escape routes and refuge areas
- Be aware of current weather conditions and fire behaviour
- **Assess the risk of fire overrun**
- **Don't put yourself in this position in the first place – anticipate and avoid hazardous locations – use the LACES checklist**
- Don't panic or cause others to panic – **Warn others** who may be in immediate danger
- **Send an emergency radio call giving your details, callsign, roof ID number and location**
- Don't drive through dense smoke, you may have an accident or drive off the road
- **Park in open space, bare or burnt ground or in an area of least vegetation, furthest from the path of the fire**
- **Stay in your vehicle and operate protective equipment (spray bars)**
- **Turn on the headlights, emergency lights and hazard warning lights, leave engine running and sound horn**
- Petrol motors may stop working due to vapour lock
- **Close windows and air vents and turn air conditioning on to recycle**
- **Shelter under a coat or blanket to protect your body from the radiant heat and lie down as close as possible to the floor**
- When the fire has passed
 - if vehicle is still safe, remain in the vehicle
 - if vehicle is hazardous remain together as a crew and seek refuge in a safer location until conditions cool
- The air closest to the ground is the freshest
- Coats or blankets should be taken and worn to provide supplementary protection against radiated heat from the burnt out ground
- Don't touch the interior or exterior parts (particularly metal) of the vehicle, it will be very hot and may still be burning