



# Fire Management and Community Recovery Plan

Weymouth Progress Association



Updated December, 2024

# Weymouth Progress Association Sub Committee Fire Management and Community Recovery Plan

The WPA Fire Management and Community Recovery Sub Committee met on January 18, 2020 to consider the implications of a major fire event in Weymouth and how this would impact the community.

The sub Committee consisted of:

- Craig Tyeson (Vice President, WPA) Convener
- Ralph Berry: TFS Weymouth Station leader
- Zich Zicy-Woinarski: TFS volunteer
- Stan Van Emmerik: WPA Executive and SES volunteer
- Daryl Bailey: WPA Committee member

The Fire Management and Community Recovery Plan has been reviewed by the Tas Fire Service Community Development Officer.

The development of this plan is consistent with the interim findings of the Bushfire Royal Commission, which urges "shared responsibility" with respect to fire management and community recovery. A copy of the interim findings is available at the following link:

[https://naturaldisaster.royalcommission.gov.au/system/files/2020-08/Interim%20Observations%20-31%20August%202020\\_0.pdf](https://naturaldisaster.royalcommission.gov.au/system/files/2020-08/Interim%20Observations%20-31%20August%202020_0.pdf)

The Sub Committee was guided by the following key questions:

## Key Questions:

- What is a bushfire disaster?
- What are the consequences of a bushfire disaster?
- What or who is affected or lost in the community?
- What do we need to do in the Weymouth Community to mitigate the risks and effects of a bushfire disaster?
- What happens immediately following a bushfire disaster?
- What is community recovery?
- What are the roles of key stakeholders in community recovery?
- What resources, agencies will assist us in planning?
- Where to next?

Our response to a major fire event can be guided by three broad areas of focus:

- **What?** Define the problem, identify the risks and hazards.
- **So what?** What does this mean for the community? How will the community be affected?
- **What next?** What do we do to mitigate risks? How do we manage and assist the community to recover from a major bushfire event?

### What?

The following risks have been identified with respect to major fire event or bushfire disaster impacting the Weymouth Community:

#	Location and Risk/Event	Outcome	Existing/proposed risk treatment actions
1	<ul style="list-style-type: none"><li>Fire starts east of Lulworth Road</li></ul>	<ul style="list-style-type: none"><li>Fire spreads to Weymouth</li><li>Excess fuel loads</li></ul>	<ul style="list-style-type: none"><li>Residents advised to put protection measures in place to reduce fire risk</li></ul>
2	<ul style="list-style-type: none"><li>Fire Danger: Severe, Extreme or Catastrophic</li></ul>	<ul style="list-style-type: none"><li>Fire difficult or impossible to stop or control</li></ul>	<ul style="list-style-type: none"><li>Leave early.</li></ul>
3	<ul style="list-style-type: none"><li>2km spotting distance</li></ul>	<ul style="list-style-type: none"><li>Embers and fire in advance of the main fire</li></ul>	<ul style="list-style-type: none"><li>Emergency broadcast advising to leave early</li></ul>
4	<ul style="list-style-type: none"><li>Smoke</li></ul>	<ul style="list-style-type: none"><li>Respiratory difficulties.</li><li>Difficult for fixed wing or rotary wing aircraft to locate fire</li></ul>	<ul style="list-style-type: none"><li>Leave early</li></ul>
5	<ul style="list-style-type: none"><li>Power outage</li></ul>	<ul style="list-style-type: none"><li>Power cut to household pumps. Communication blackout. NBN towers impacted.</li></ul>	<ul style="list-style-type: none"><li>Recommend battery powered radio</li></ul>
6	<ul style="list-style-type: none"><li>Road blocked</li></ul>	<ul style="list-style-type: none"><li>No access in or out</li><li>Difficulties for TFS to deploy appliances and personnel</li></ul>	<ul style="list-style-type: none"><li>Leave early</li></ul>
7	<ul style="list-style-type: none"><li>Evacuation to safe place</li></ul>	<ul style="list-style-type: none"><li>Traffic congestion at river beach</li><li>Traffic control required</li><li>Cars will need to be abandoned</li><li>Difficult access to beach for aged and disabled</li><li>Lack of shelter</li><li>Evacuees will need to stay at the safe place for significant period of time</li></ul>	<ul style="list-style-type: none"><li>Alternative defensible place</li><li>Sports ground? How do we make the sports ground defensible?</li><li>Determine in advance who will stay in the event of a fire event</li><li>Consider alternative access</li></ul>

#	Location and Risk/Event	Outcome	Existing/proposed risk treatment actions
8	<ul style="list-style-type: none"> <li>Reduced food supplies</li> </ul>	<ul style="list-style-type: none"> <li>Victims seeking shelter have little or no food. Elderly and young significantly impacted.</li> </ul>	<ul style="list-style-type: none"> <li>Emergency supplies delivered after the fire front has passed</li> </ul>
9	<ul style="list-style-type: none"> <li>Excess fuel loads in public spaces and private property</li> </ul>	<ul style="list-style-type: none"> <li>Higher risk of fire</li> </ul>	<ul style="list-style-type: none"> <li>Controlled fuel reduction burns</li> </ul>
10	<ul style="list-style-type: none"> <li>Inconsistencies in community preparedness</li> <li>Numbers of residents unclear and therefore difficult to account for all residents</li> <li>Elderly, infirmed or disabled have difficulty in accessing safe location.</li> </ul>	<ul style="list-style-type: none"> <li>Numbers of residents unprepared placed at higher risk</li> <li>Elderly and infirmed at greater risk of injury</li> </ul>	<ul style="list-style-type: none"> <li>Develop community, age, property profile of Weymouth: ABS, GTC</li> <li>Identify permanent, casual residents</li> <li>Identify key areas that can be cleared of fuel</li> <li>Mobile phone contact by tower</li> </ul>
	<ul style="list-style-type: none"> <li>Ambulances unable to access the fire zone</li> </ul>	<ul style="list-style-type: none"> <li>Elderly and infirmed unable to be evacuated</li> </ul>	<ul style="list-style-type: none"> <li>Leave early</li> </ul>

### So What?

Emergency Services, TFS and SES conduct a rapid impact assessment following the fire event to assess the extent of damage to structures, infrastructure and to determine if there has been any loss of life.

A major fire event will impact the following:

- Access: road, air, sea
- People with disabilities and the aged
- Infrastructure and power
- Communication
- Emergency services
- Property loss
- Loss of life or injury
- Water and food
- Local Business
- Wildlife and flora
- Trauma and mental health
- Primary producers

### **What Next?**

- What actions/strategies are needed to mitigate the risks?
- What Community Recovery strategies are required following a major bushfire event?
- What is the role of:
  - WPA
  - TFS
  - GT Council
  - State Government

### **Recommendations:**

- Investigate alternative means of evacuation
  - River – upstream
  - Across Weymouth Farm land to Weymouth Farm Road
- Replace public wood fired BBQs with electric BBQs
- Identify areas required fuel reduction or clearing
- Develop Community awareness around fire management
- Construct Trevor Street extension as a natural fire break
- Create new fire breaks
- Develop access trails
- Develop Sports Ground as alternative safe place.
- Assess issues regarding access to Sports Ground and maintaining the area as a defensible place. This will require fire breaks, fuel reduction, cleared access on Walden Street.
- Identify where low branches can be cut to enable fire truck access, particularly in public spaces or those owned by DPIPW or GTC
- Develop a Community profile: age, residential status, need for prescription medication, mobility issues, medical conditions that may be impacted by fire/smoke eg asthma
  - Create Survey Monkey (anonymous)
- Identify expertise that exists in the community that would assist in community recovery. Undertake audit of local skills (Survey Monkey):
  - Professional
  - Trades – electrician, plumbing, building
  - First aid certification
  - Medical experience, nurses
  - Location of emergency generators, fire pumps
- Conduct audit of residences with:
  - solar powered battery packs
  - generators
  - Fire fighting pumps and equipment
- Strategies to enact in the event of an extreme fire danger
  - Advise residents to leave
  - Public information
  - Messages on Public Hall Notice board

- Complete Fire Management and Community Recovery Plan (FMCPR) including community consultation.
- Convene Special Community meeting for Community Consultation on FMCPR. Invite GTC Emergency Management person (Peter Groves, Procurement, Risk and Compliance Officer George Town Council)
- Raise Community awareness about possible looting following a fire event
- Legal implications for victims of a fire event.
- Insurance implications for victims of a fire event.
- Clearly define Duty of Care for each agency or community organization.
- Determine optimum location for a Bushfire Recovery Centre: Weymouth Hall, Tam O' Shanter Golf Club, elsewhere?

## Updated Recommendations:

Recommendations (September, 2020)
<ul style="list-style-type: none"> <li>• Investigate alternative means of evacuation <ul style="list-style-type: none"> <li>○ River – upstream</li> <li>○ Across Weymouth Farm land to Weymouth Farm Road</li> <li>○ Gain approval from land owner to use access road</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Replace public wood fired BBQs with electric BBQs</li> </ul>
<ul style="list-style-type: none"> <li>• Identify areas requiring fuel reduction or clearing</li> </ul>
<ul style="list-style-type: none"> <li>• Develop Community awareness around fire management. Letterbox drop, website and email to members.</li> </ul>
<ul style="list-style-type: none"> <li>• Construct Trevor Street extension as a natural fire break</li> </ul>
<ul style="list-style-type: none"> <li>• Create new fire breaks Cricket Ground: Walden Street access to be cleared.</li> </ul>
<ul style="list-style-type: none"> <li>• Develop access trails.</li> <li>• Regular maintenance of fire trails. Identify fire trails.</li> <li>• Service Request to DPIPW to re-survey and assess fire appliances to the Esplanade.</li> </ul>
<ul style="list-style-type: none"> <li>• Develop Sports Ground as alternative safe place.</li> </ul>
<ul style="list-style-type: none"> <li>• Assess issues regarding access to Sports Ground and maintaining the area as a defensible place. This will require fire breaks, fuel reduction, cleared access on Walden Street.</li> </ul>
<ul style="list-style-type: none"> <li>• Identify where low branches can be cut to enable fire truck access, particularly in public spaces or those owned by DPIPW or GTC</li> </ul>
<ul style="list-style-type: none"> <li>• Develop a Community profile: age, residential status, need for prescription medication, mobility issues, medical conditions that may be impacted by fire/smoke eg asthma</li> <li>• Create Survey Monkey (anonymous)</li> </ul>
<ul style="list-style-type: none"> <li>• Identify expertise that exists in the community that would assist in community recovery. Undertake audit of local skills (Survey Monkey): <ul style="list-style-type: none"> <li>○ Professional</li> <li>○ Trades – electrician, plumbing, building</li> <li>○ First aid certification</li> </ul> </li> </ul>

<ul style="list-style-type: none"> <li>○ Medical experience, nurses</li> <li>○ Location of emergency generators, fire pumps</li> </ul>
<ul style="list-style-type: none"> <li>● Conduct audit of residences with: <ul style="list-style-type: none"> <li>○ Solar powered battery packs</li> <li>○ Generators</li> <li>○ Fire fighting pumps and equipment</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>● Strategies to enact in the event of an extreme fire danger <ul style="list-style-type: none"> <li>○ Advise residents to leave</li> <li>○ Public information</li> <li>○ Messages on Public Hall Notice board</li> <li>○ Conduct a Community Fire Drill involving all Emergency Services (November, 2022?)</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>● Complete Fire Management and Community Recovery Plan (FMCRP) including community consultation.</li> </ul>
<ul style="list-style-type: none"> <li>● Remind members of the need to have a Bushfire Plan. Provide members and residents with copy of updates FMCRP.</li> </ul>
<ul style="list-style-type: none"> <li>● Raise Community awareness about possible looting following a fire event.</li> <li>● The following advice has been received from Tasmania Police: <ul style="list-style-type: none"> <li>○ <i>Anyone who is the victim of a crime is urged to report the matter to police as soon as possible after the incident on 131 444 or Triple Zero (000) in an emergency.</i></li> <li>○ <i>Burglary prevention advice can be located on the Tasmania Police website, for example, within the Residential Burglary Prevention brochure at - <a href="https://www.police.tas.gov.au/services-online/pamphlets-publications/residential-burglary-prevention/">https://www.police.tas.gov.au/services-online/pamphlets-publications/residential-burglary-prevention/</a></i></li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>● Legal implications for victims of a fire event.</li> </ul>
<ul style="list-style-type: none"> <li>● Insurance implications for victims of a fire event.</li> </ul>
<ul style="list-style-type: none"> <li>● Clearly define Duty of Care for each agency or community organization.</li> </ul>
<ul style="list-style-type: none"> <li>● Determine optimum location for a Bushfire Recovery Centre: Tam O' Shanter Golf Club has been identified by SES, department of Police, Fire and Emergency Management as the designated Emergency Assembly Point. This has been confirmed by the Tam O' Shanter Golf Club.</li> </ul>
<b>New Recommendations (Updated, October 2021)</b>
<ul style="list-style-type: none"> <li>● Regular scheduling of maintenance of Fire Trails</li> </ul>
<ul style="list-style-type: none"> <li>● Newsletter or flier to remind residents of need for fire plan leading into summer.</li> <li>● Email</li> <li>● Website</li> <li>● Letterbox drop</li> </ul>
<ul style="list-style-type: none"> <li>● Trevor Street burn. Needs to be done March/April</li> </ul>
<ul style="list-style-type: none"> <li>● Vegetation above Power lines opposite Smith Street needs to be cleared. Telstra shed track needs to be cleared.</li> </ul>
<ul style="list-style-type: none"> <li>● TFS supervision of burns of vegetation in the WMBRA. Service Request to GTC.</li> </ul>
<ul style="list-style-type: none"> <li>● Monitor fire reduction in and around the Optus Tower.</li> </ul>

### **Emergency Evacuation Exercise: Sunday November 6, 2022**

A working party consisting of WPA reps and TFS reps was convened in early 2022 to investigate the possibility of staging a Fire evacuation simulation at the Weymouth Cricket Ground (Nearby Safer Place).

The exercise was conducted on Sunday, November 6, 2022. Volunteers from 7 Brigades and SES participated:

- Weymouth,
- Pipers River
- Karoola
- George Town
- Dilston
- Pipers Brook Brigades
- George Town State Emergency Service
- Sea Rescue.

The following planning considerations were implemented:

#### **Tasks- On the Day**

- Set up Staging area (WCC) 08:00 Sunday.
- Set up Rec Ground- 08:00
- Conduct Exercise briefing at staging area.

*The event will also include take the form of a Family Fun Day with the following proposals to be considered at the October 20 planning meeting.*

- Increase activities at the Rec ground to include equipment displays from SES and TFS displays
- Increase give away type prizes
- Focus some activities at children.
- Let children use a hose to hit targets for prizes.
- Lucky prize of fire extinguishers for participating community members.
- Police car display.

These activities are aimed at children who will encourage parents to be involved.

Lucky entry prizes will encourage more people to be there.

The higher number of residents who participate is the key to the success of the exercise.

#### **Planning Considerations/Requirements**

- *Weymouth Cricket Ground will be Control Centre.*
  - TFS will set up from 8:00 am and will be finished by 4:00 pm
  - *WPA will need to nominate an assistant Controller and Safety Officer.*
  - 4 Scenarios
1. Evacuation to Cricket Ground: entry from Walden St, exit from Blamey Street.
  2. Report of burning embers at a residence and evacuation.
  3. Lost family (4 including at least 1 adult) in the dunes: recovery and evacuation.
  4. Non ambulant resident: evacuation.



- *Call for actors to fill roles for Scenarios 2,3 and 4.*
- Weymouth Brigade will log radio communication.
- Weymouth, Dilston, Lilydale and Pipers River confirmed.
- Launceston and George Town SES confirmed.
- George Town, Pipers Brook and Hillwood brigades also invited to participate.
- Invite Lulworth to participate.
- Invite co-operation of Tas Police.
- Dilston brigade will establish a designated helicopter landing area.
- *Flier to all residents will go out two weeks before the event.*
- *Residents will need to be aware of the event and sirens on the day.*
- *Advertise on email and social media leading up to the event. Promote at the Anniversary Event and General Meeting.*
- 20 km/h speed limit
- Evacuation starts at 10:30 am and concludes by 12:30 pm
- *WPA and TFS will contribute to costs of a BBQ: sausages and bottled water.*
- Briefing for actors at the Hall at 10:00 am
- Safety Officer will complete an evaluation including questions for residents at the cricket ground who have participated.
- Evaluation will inform efficacy of our current FMCRP.
- *All officials will be provided with hi-vis vests by TFS.*

#### To Do

Planning Tasks	Who's responsible	Completed
Write scenarios	TFS Community Development Officer	Draft
Write Facilitators Guides	TFS Community Development Officer	Draft
Write intro	TFS Community Development Officer	Draft
Allocate tasks to Brigades	Management Team	Partial
Develop Exercise Timeline-	Management Team	
Allocate Roles	Management Team	Partial
Write Actors Brief	TFS Community Development Officer	
Write and Send invitation letter to community	WPA	
Determine activation signal	Management Team	Truck siren
Arrange comms Plan with Fire Comm	TFS Community Development Officer	
Print site maps	TFS Community Development Officer	
Develop Evaluation form	TFS Community Development Officer	Draft
Develop Safety Instruction	TFS Community Development Officer	Draft

Develop Brigade/ unit instruction.	TFS Community Development Officer	
Risk Management plan	TFS Community Development Officer	Complete / Accepted
Catering	WPA	Completed
Get written agreement and commitment from <ul style="list-style-type: none"> <li>○ GT Council,</li> <li>○ TasPol,</li> <li>○ GT SES</li> <li>○ Tas</li> <li>○ Ambulance</li> <li>○ TFS- Pipers River, Pipers Brook, Hillwood, GT</li> </ul>	WPA WPA DC TFS Community Development Officer Cancelled  TFS Community Development Officer	
Brief DO and FO	TFS Community Development Officer	Ongoing
Weymouth Resident contact list	TFS Community Development Officer	Done

**Roles: - To be allocated**

Planning Tasks	Who's responsible	Completed
Exercise Controller-	Raz	Confirmed
Deputy Exercise Controller	Craig Tyeson Plus 1	Confirmed
Safety Officer	DC	
Logistics Officer	Not required	
Scenario 1 Facilitators Rec Ground managers	Craig R	Confirmed
Scenario 2 Facilitators	Ross Griffin	Confirmed
Scenario 3 Facilitators	GT SES	DC to discuss with A.T
Scenario 4 Facilitators	Launceston SES	DC to discuss with David Nichols
Scenario 4a Facilitators	TFS Support	

Evaluations Officers	EC, Evac manager, Safety Officer, Deputies	Management Team
Recreation Ground Controller Deputy Rec Ground Controller	Craig Shaun	DC
6 Actors for scenarios 3 and 4		
Street controllers		
Comms from Staging area	Zich, Ralph	Confirmed

### Key Role nominees

#### Logistics

NAME	Role allocated	
Zich	Comms	
Ralph	Comms	
Dave Cleaver	BRN	
Raz Stow	EC	
Brian Medcraft	Safety Officer	
<b>CONFIRMED BRIGADES</b>		
Lilydale 4-1	Scenarios	
Pipers River 4-1	Scenarios	
Weymouth 4-1	Scenarios	
Dilston 3-1	Rec Ground	
GT SES	Scenario 3	
L'ton SES	Scenario 4	
<b>CONFIRMED ACTORS</b>		
Local residents	WPA	Confirmed
Item	Who's Responsible	Completed
Hi Vis vests	TFS Community Development Officer	
Catering	WPA	
Bushfire Ready Neighbourhoods	James Jennings	
Tables for catering	WPA	
Arrange face to face planning meeting: Oct 20. 19:00	TFS Community Development Officer	

#### See also associated documents:

- Exercise Time Line
- Social Media Poster
- Letter to residents

- **Thank you letter to Brigade volunteers**
- **Risk Assessment**

#### **Update Recommendations: December 2022**

1. Core flute directional signage: Nearby Safe Place, eyelets. Include a sticker with NSP for the town map.
  - a. **Action: WPA to arrange.**
2. 5m gate at Blamey Street entrance and road base. Gates to have dual padlock: TFS and WPA.
  - a. **Action: WPA to submit request to GTC.**
3. Water tank for reliable water supply at NSP.
  - a. **Action: Request has gone to GTC.**
4. Portable fire pump to be kept at NSP.
  - a. **Action: WPA to take pump to WCC.**
5. Hose for portable pump.
  - a. **Action: Dave Cleaver to investigate.**
6. Site plan with designated parking, TFS Reserved parking. No parking over septic tank area.
  - a. **Action: Dave Cleaver to draft site map.**
7. TFS Parking parallel to fence on Miller Street.
8. Rotary wing aircraft landing area in the middle of the cricket ground does not require marking.
9. New Fire Risk Rating system. Investigate Warning sign for Weymouth. This could be mounted at the Hall.
  - a. **Action: Dave Cleaver to investigate provision of A1 sign.**
10. Shade for staging area: WPA to provide gazebos in the event of a fire emergency.
11. Megaphone: WPA to provide megaphone in the event of a fire emergency.
12. Maintain vegetation growth: responsibility of GTC. Needs to be clarified in lease conditions provided GTC renews lease of WCG. If leased is renewed, requires written agreement between GTC and WPA on use of the clubhouse structure.
  - a. **Action: WPA to negotiate with GTC.**
13. Advice to residents: Send residents copy of Bushfire Safety Guide 2022
  - a. **Action: Dev Cleaver to provide 200 copies.**
  - b. **Action: WPA to distribute to residents.**
14. Currently when solar panels are installed, the installer is required to place a notice on the meter box, that "Solar Panels are installed". This indicates that the household has 2 alternative power supplies- the grid and solar power off the roof. When the grid goes down, the Solar system is unable to deliver power to the household or into the transmission lines. A number of residences have both solar panels and batteries. If the grid goes down these residences can still generate their own power until our batteries are 100% full, at which stage our solar panels will shut down and come on intermittently when the batteries fall below 100%, during daylight hours. These residences are not delivering power to the grid, but still have power to support household appliances. As a result of the Exercise, it is recommended

that another sign to go on the meter box: "Solar Panels and Battery are installed at this premises". This will alert the Emergency Services of the alternative power sources at the premises.

**a. Action: WPA to investigate.**

**Recommendations and observations from TFS.**

1. Impressed with attendance, work of WPA. Level of awareness is good.
2. Important to maintain momentum.
3. Replication of the event? Every 2 years in collaboration with WPA. Middle of October to November? Depends on fire season.
4. Thank you letter from WPA to Brigades and SES for contributing to the success of the exercise.

**a. Action: WPA to arrange**

## **Community Recovery**

Several documents and publications are available to inform the community and key agencies about issues in relation to Community recovery following a major fire event or bushfire disaster.

The WPA Sub Committee recommends the following:

- Australian Institute for Disaster Resilience Handbook Collection and Checklists
- Tasmanian Disaster Resilience Strategy 2020-2025
- Tasmanian Community Bushfire Refuge Plan
- George Town Council Emergency Management Plan
- Red Cross: Recovering from Disaster

Other useful publications include:

- Emergency Management Victoria: Disaster Recovery Toolkit for Local Government
- Emergency New South Wales: NSW Disaster Recovery
- South Australia: Disaster Recovery Plan

## **Duty of Care Australia**

The principle of duty of care is that you have an obligation to avoid acts or omissions, which could be reasonably foreseen to injure or harm other people. This means that you must anticipate risks for your clients and take care to prevent them coming to harm.

A duty of care exists when someone's actions could reasonably be expected to affect other people. If someone is relying on you to be careful, and that reliance is, in the circumstances, reasonable, then it will generally be the case that you owe them a duty of care. You need to be clear about exactly what the nature of the care or support is that you are providing, and on which the person is relying. Failure to exercise care in that situation may lead to foreseeable injury (in other words it could have been avoided with due care taken).

# Surviving a bushfire

We recommend that you are familiar with the Bushfire Survival Strategies available on the Tas Fire Service website: [Tas Fire Service Bushfire Survival Plan](#)

The information below from the South Australian Community Fire Service may also be useful.

There are 7 keys to surviving a bushfire which we recommend you review as part of developing your Bushfire Survival Plan.

## **Writing and practicing your Bushfire Survival Plans**

- Your plan is central to your survival.
- **Have you got a Plan?**

## **Understanding bushfire behaviour**

- It is important to understand the characteristics and behaviour of bushfires.
- They are influenced by vegetation, topography and climate.
- **What do you know about bushfire behaviour?**

## **Recognising days of high fire danger**

- Bushfires can be more dangerous on certain days.
- Learn to recognise the characteristics and terminology of these days.
- **Do you know the signs?**

## **Preparing your home and property**

- Even if your Plan is to leave early, a well prepared home is more likely to survive a bushfire.
- **How prepared is your property?**

## **Creating Emergency Kits**

- Kits keep all the things you will need together and accessible. Create:
  - Relocation Kit - things to take with you
  - Survival Kit - what you need to help survive the day
  - Recovery Kit - what you need for the 24-48 hours after a fire.
- **What would you pack?**

## **Acting on days of high fire danger**

- Put your preparation and plans into action on high fire danger days.
- **What will you do on a high fire danger day?**

## **Consider your physical and emotional preparation**

- It's important to be realistic about what you can and can't do.
- Ensure you and your family understand fully what a bushfire can mean in terms of fear, stress and threat to personal life.
- **How prepared are you?**

## **Know what to do on fire danger days**

Fires can threaten suddenly without warning, and can travel very fast.

It's important that you use triggers to warn you of the potential for danger before a fire even starts.

Days of high fire danger are usually:

- hot
- dry
- windy

Finding out the Fire Danger Rating is the best way to identify if it is a day of high fire danger.

Remember, the Fire Danger Rating is not a predictor of how likely a bushfire is to occur, but how dangerous it could be if it did occur.

You should not become complacent because there have been days with high Fire Danger Ratings and no bushfires.

The Bureau of Meteorology issues the Fire Danger Rating after 4pm for the next day.

One of the best ways to identify whether you need to activate your Bushfire Survival Plan early is to find out the Fire Danger Rating for the next day.

Don't wait until there is a fire, activate your plan well before a fire starts on high fire danger days.

The most important thing on high fire risk days is to be alert to what is going on around you.

Most of your actions will be the same whether you are leaving early or staying and defending. They include:

- monitoring the radio
- checking the weather forecast
- ringing neighbours to share facts and opinions
- look at the Tas Fire Alerts website for information on fires in your area  
<http://www.fire.tas.gov.au/>
- going outside and looking for smoke every 30 minutes
- performing the actions that will allow you more time as the fire front approaches
- performing the actions that are part of your local community strategies, for example, checking on a vulnerable neighbour.

## **Bushfire behaviour**

### ***Three stages of a fire***

During a fire, you and your property are at risk from several things, depending on the stage of the fire.

### ***Stage one – before the fire arrives***

The lead time is highly variable, but a general guide is up to 30 minutes.

Before the fire front arrives, the main threats are:

- ember attack
- thick smoke
- increasing fire noise
- increasing darkness



- it will also be hot and frightening.

You can deal with these threats by:

- ember proofing your home
- preparing a clear space around your home that you can defend
- dressing in protective clothing and wearing a protective mask
- preparing yourself psychologically for the ordeal
- patrolling inside and outside the house, extinguishing any spot fires
- sheltering in the house if conditions become too bad.

### ***Stage two – during the fire***

This is a relatively short period, but that does not make it less horrific. It will last from 5 to 20 minutes, depending on conditions. Although brief, this is the most dangerous stage and you should seek shelter inside.

As the fire front passes you will be subject to:

- radiant heat
- flame contact
- ember attack
- smoke
- loud noise
- darkness
- power failure.

### **Radiant heat**

Radiant heat can kill.

- Radiant heat is many times hotter than the air temperature.
- The front of a moving fire radiates up to six times more heat than its back.
- Radiant heat only radiates *in straight lines* and will *not penetrate solid objects*.
- Although it may not set a building on fire, it can crack and break windows, allowing embers to enter your home.
- Bushfires radiate a more significant amount of heat than grassfires.

### ***Stage three – after the fire front has passed***

Many hours, sometimes days, after the fire front has passed, properties continue to be at risk from ember attack and smouldering fuel. You should extinguish small fires and check roof spaces and other likely places for embers.

How vegetation feeds bushfire

Vegetation fuels bushfires. How hot the fire becomes or how fast it spreads depends on the vegetation or fuels: the amount, type, condition and arrangement.

For example, long dry grass, twigs and leaves will burn very quickly; while heavy forest and scrub will burn slowly, but at a much higher temperature and at greater intensity.

Common fuel types include:

- grass usually after it is drying out or dead
- crops
- seaweed
- decomposing humus, peat and duff (fine ground litter)

- small shrubs and scrub (heath lands)
- plantation forest (eucalypts, pine trees)
- bush/scrub (eucalypts with under-storey vegetation, wattles, she-oaks).

Given the right conditions, most of these fuels will ignite and burn readily. All will burn with different degrees of intensity.

### **How different fuels burn**

Grasses respond rapidly to changing moisture in the air. Very dry grass (a deep gold and brown colour) absorbs moisture from damp air overnight which is lost to wind and dry air very early on high fire risk days. Grass fires can spread very rapidly.

Scrub vegetation and trees drop leaves and twigs (fine fuel) on the ground around them. These fuels can accumulate in large quantities. This fuel burns slower than grasses, but gives off far more heat.

When the bark on trees is fibrous and dry, flames from a surface fire can pre-heat and ignite the bark. This helps a fire climb higher up the tree, adding to both the height of the flames and the heat of the fire.

When shrubs, branches and bark provide a continuous ladder of fuel up into the tree canopy, a bushfire can burn high in the trees and give off very large amounts of heat. This is called a crown fire.

### **Effects of humidity on bushfire**

It is easy to recognise days when fuels are at their driest. This is more common in summer, on hot and windy days.

The strong winds, coming from arid inland Australia, dry out the bush and fan any fire that starts.

On a typical summer day the air may contain very little moisture; it has a low relative humidity. This means that vegetation cannot absorb much moisture from the air.

When the air is dry, the bush or grasslands are also dry from very early in the day, adding to the fire danger.

### **Relative humidity**

Humidity is the amount of water vapour in the air:

- Low humidity means the air is very dry.
- When humidity decreases to less than 30 per cent the fire danger increases.
- Low humidity evaporates moisture from vegetation and flammable materials, making them easier to ignite.

### **Effects of wind on bushfire**

Strong winds are normally present during bushfires, which makes it harder for firefighters to bring the fire under control. The wind pushes flames closer to unburnt fuel and causes the fire to travel quicker.

In South Australia, winds are hottest from the north/northwest. Wind also dries out vegetation, making it more flammable, and bends flames over, allowing radiant heat to pre-heat unburnt fuel.

#### *Effect of wind on fire*

Wind influences:

- the speed at which a fire spreads. The higher the wind speed, the greater the fire danger
- the direction in which a fire travels and the size of the fire front. A change in wind direction will rapidly change the fire front and fire direction
- the intensity of a fire by providing more oxygen
- the likelihood of spotting. Spot fires ignite when winds carry burning pieces of leaves, twigs and bark (embers) ahead of the fire.

### **Effects of topography on bushfire**

A fire will burn faster uphill because the flames can reach more unburnt fuel in front of the fire. The heat radiating from the fire pre-heats fuel on the slope ahead of the fire, causing the fuel to start burning more quickly.

As a rule, the fire will increase its speed by 4 times as it travels up a 20 degree slope. The opposite applies to a fire travelling downhill: because the flames reach less fuel, there is less radiant heat to pre-heat the fuel ahead of the fire, so the fire travels slower.

### **How a bushfire spreads**

Bushfires spread along the surface of the ground in three ways:

- direct flame contact
- radiant heat
- burning embers.

Direct flame contact - flames touch unburnt fuels and raise their temperature to ignition. This process is hastened by wind blowing the flames deeper into the fuel ahead or an upward slope presenting fuel to the flames sooner.

Radiant heat - radiant heat from the fire raises nearby fuel to ignition temperature, often before the flames reach it.

Burning embers - when embers land on fine fuels, they can start small fires. If left unchecked, these fires smoulder, grow and spread. Winds carry embers ahead of the actual fire - sometimes several hundred metres ahead. They can land on flammable material, causing small fires to start.

Fires spread vertically from the surface through middle and upper-level fuels. Fires only crown into the tops of tall trees if there is fuel from the ground all the way up to the tree tops.

As a rule, flame height is between 3 and 5 times the height of the fuel. This makes cutting or grazing grass well worthwhile!

Fire is typically teardrop-shaped when there is wind.

The back of the fire burns slowest, coolest and with the shortest flames.

The fire front burns fastest and hottest and is the most dangerous place.

The fire flank is also dangerous: in the event of a wind change the upwind flank will immediately burn at its maximum rate of spread.

- Planning to stay and defend

### **What to do in the event of a bushfire**

If you live in a bushfire-prone area you need to have:

- a pre-prepared checklist

- a prepared and practised Bushfire Survival Plan listing what your actions will be in the event of a bushfire.

To make your checklist easier to follow divide it up into things to do:

- inside and outside the house
- before, during and after the bushfire has passed.

The actions below will assist if you are staying to defend your property or are unable to leave.

Remember, property can be replaced but lives cannot. If you intend to leave early, make sure that you do so either early in the morning or even the night before.

## **Before the fire front arrives**

### **Inside**

- Alert family and neighbours.
- Bring pets inside.
- Dress in protective clothing.
- Shut all doors and windows.
- Fill bath, sinks and buckets with water.
- Place wet towels in any crevices, such as gaps under doors.
- Take curtains down and push furniture away from windows.
- Place ladder in ceiling access ready to inspect ceiling cavity.

### **Outside**

- Remove last minute combustibles from around the house including flammable blinds, wooden furniture and doormats.
- Start pump for fire hose and/or roof sprinklers. (Make sure to manage your water supply well, so that there is sufficient water left for when the fire front actually arrives).
- Wet down all areas on the side of house facing the direction of the fire.
- Dampen window ledges allowing water to penetrate any gaps.
- Plug drains and fill gutters with water.
- Wet down any pre-determined problem areas.
- Patrol for spot fires and extinguish any that start.

## **When fire front arrives**

- Retreat inside your home.
- Bring buckets, hoses, mops and tap fittings inside with you.
- Patrol inside for spot fires and extinguish.
- Check the ceiling cavity.
- Drink plenty of water.
- Reassure family and pets.
- Make sure you are situated in a room with two exits.

## **After fire front has passed**

- Return outside when safe to do so.
- Patrol for spot fires and extinguish any.
- Continue to patrol for 3-8 hours.
- Let family and neighbours know you're okay.
- Continue drinking plenty of water.

## **Vehicles in a bushfire**

*Being out on the road during a bushfire is EXTREMELY dangerous. Last minute evacuations are clearly not an option.*

A well thought out Bushfire Survival Plan is vital for all residents in bushfire-prone areas. Plan to stay with your home and defend it, or go to a safe area well before the fire is expected to arrive.

Travel in the country during the bushfire season needs to be done with extreme caution and vigilance.

- Always carry woollen blankets and a supply of water in the vehicle. Dress in suitable non-synthetic clothing and shoes.
- Know the local bushfire warning system and tune in accordingly when travelling.
- Be attentive to your situation and as you drive make mental notes of solid structures, including farmhouses, buildings etc that could provide safe shelter in the event of a bushfire.
- Look for sites that have well managed, reduced vegetation.

If you see a bushfire in the distance, carefully pull over to the side of the road to assess the situation. If it is safe to do so, turn around and drive to safety. Depending on how close the fire is, consider using a solid structure that you may have passed previously to shelter in while the fire front passes.

If the fire traps you

If the fire has trapped you find a suitable place to situate the car and shelter from the intense radiant heat. There is a whole range of factors that may impact your survival chances. The following guidelines may help to minimise the level of risk:

### *Positioning your vehicle*

- Find a clearing away from dense bush and high ground fuel loads.
- If possible minimise exposure to radiant heat by parking behind a natural barrier such as a rocky outcrop.
- Position vehicle facing towards oncoming fire front.
- Park vehicle off the roadway to avoid collisions in poor visibility.
- Park away from other vehicles.

### *Actions to take inside your vehicle*

- Stay inside your vehicle - it offers the best level of protection from the radiant heat as the fire front passes.
- Turn headlights and hazard warning lights on to make the vehicle as visible as possible.
- Tightly close all windows and doors.
- Shut all the air vents and turn air conditioning off.
- Turn the engine off.
- Get down below the window level and shelter under woollen blankets.
- Drink water to minimise the risks of dehydration.

### *What to expect as the fire front passes*

- Stay in the vehicle until the fire front has passed and the temperature has dropped outside.
- Fuel tanks are very unlikely to explode.

- As the fire front approaches, the intensity of the heat will increase along with smoke and embers.
- Smoke will gradually get inside the vehicle and fumes will be released from the interior of the car. Stay as close to the floor as possible to minimise inhalation and cover your mouth with a moist cloth.
- Tyres and external plastic body parts may catch alight. In more extreme cases the vehicle interior may catch on fire.
- Once the fire front has passed and the temperature has dropped cautiously exit the vehicle. (Be careful - internal parts will be extremely hot.)
- Move to a safe area e.g. a strip of land that has already burnt.
- Stay covered in woollen blankets, continue to drink water and await assistance.

### **Legal Implications: Preparing for and responding to disasters**

<https://www.nfplaw.org.au/free-resources/disasters>