



Rural or Remote Facility Bushfire Risk Management Checklist

“I love a sunburnt country/ a land of sweeping plains/ of ragged mountain ranges/ of droughts and flooding rains.....

Core of my heart, my country/ land of the Rainbow Gold/ for flood and fire and famine/ she pays us back threefold.”

These excerpts from Dorothea Mackellar’s “My Country” which was first published in 1908 describe the nature and variation of the Australian climatic landscape. Naturally, we still experience drought, flood and fire, with some perhaps arguing that current day events may be more intense than they were one hundred years ago. Whether you subscribe to this view or not, preparing for these natural perils is an accepted reality with “preparation” being the mantra of the various response agencies.

This bushfire risk management checklist is the result of the valuable input of members who attended a series of mini seminars which were held during December 2015. It is a revision of the original checklist posted on the Unimutual website and adopts a modified format which addresses the following sequential issues:

- Preliminary planning
- Preparing a Bushfire Emergency and Evacuation Plan (BEEP)
- Pre-season preparation and site hardening
- An approaching bushfire
- On the fire ground
- Post fire recovery

This checklist is generic and may not be suitable for all applications relating to bushfire preparedness, as the nature of individual sites will vary significantly. It is intended to provide a list of issues for institutions to consider and does not constitute advice regarding the management of a bushfire event. It is recommended that each institution using this checklist employ modifications to ensure that it is appropriate for use in the context of their individual requirements and situations and that the advice and resources of the relevant local authorities also be sought.



Section 1 – Preliminary Planning

This section examines the range of issues to consider when planning for the bushfire season. The planning process should consider the location and access (remote, rural, bushland), activities undertaken, staff and visitor numbers, fire danger, site autonomy, external resources available, engagement with local emergency management committees and preparation of a site specific risk assessment and bushfire emergency management plan.

1	Is the site either in a remote, rural or bushland setting?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
2	Is the site in a recognised bushfire risk zone?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
3	Is there only one access road to the site?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
4	Is the site occupied by staff and visitors during the bushfire season?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
5	Is stock kept at this location (such as, cattle, sheep or horses)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
If you answered yes to any question 1-5 – it is likely that the site will be high risk or greater				
6	Have you conducted a site autonomy and status assessment which considers the sites exposure to bushfire, internal resources and preparedness?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
7	Have you assessed the site response capabilities including equipment and supplies available on site for firefighting?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
8	Have you assessed the response capabilities of external resources such as the RFS/CFA?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
9	Has the brigade visited the site and provided feedback regarding their needs for set up and site defence, site preparedness or hardening against bushfire attack?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
10	Do any staff participate in the Local Emergency Management Committee or are members of the RFS/CFA or other response agencies?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
11	Has a detailed asset inventory and valuation been prepared for the site?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
12	Does the site contain any valuable research equipment, specimens, samples or records?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
13	Have all critical utilities and associated equipment or infrastructure been identified?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
14	Has all fire fire-fighting equipment and infrastructure been adequately maintained and tested?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
15	Have you prepared a bushfire risk assessment for the site? Does it include a Bushfire Attack Level assessment? If the BAL is high, can it be reduced?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
16	Has a site hardening or preparation plan been developed where appropriate to address risks identified in the risk assessment?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
17	Have you prepared a bushfire emergency and evacuation plan for the site?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
18	Have you identified evacuation routes and places of last resort as part of the emergency plan?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>

19	Have “new items” required for fire hardening or firefighting purposes been included in the budget planning and forward budget planning processes?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
20	Has a BCP been prepared for the site?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>

Section2 – Bushfire Emergency and Evacuation Plan (BEEP)

This section examines the range of issues to consider when preparing a bushfire emergency and evacuation plan.

1	Is the BEEP or a copy kept on site?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
2	Is the BEEP reviewed regularly or when there are changes to response agency procedures, protocol or advice?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
3	Is the BEEP version controlled?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
4	Does the BEEP identify an Emergency Controller or Chief Warden as well as Area Wardens (if required)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
5	Does the BEEP contain all relevant contact numbers, including university and response agency contact numbers?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
6	Does the BEEP specify escalation and notification protocols and procedures for managing specific phases of the emergency?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
7	Does the BEEP specify when to “shelter in” or when an evacuation should commence?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
8	Does the BEEP identify evacuation routes and places of last resort and have the risks to people using the evacuation routes been assessed?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
9	Does the BEEP specify how an evacuation should be conducted? Any special needs to be accommodated, whether for people or equipment in need of evacuation or relocation?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
10	Does the BEEP include bushfire management instructions and action plan, such as close all windows, wet towels under doors, fitting of ember guards or radiation barriers?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
11	Does the BEEP contain a site layout of the premises that shows the relevant information such as main buildings, internal roads, gas, water, Chemical Stores housing Dangerous Goods or other locations with Hazardous materials (including biological)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
12	Does the BEEP identify the location of shut off valves for key utilities?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
13	After utilities are isolated, have you ensured that fire water remains available?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
14	Does the BEEP detail procedures for managing valuable research equipment, specimens, samples and records?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
15	Does the BEEP specify who should do what tasks during a bushfire emergency?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>

16	Have staff been trained to implement the BEEP?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
17	Does the site induction (for staff and visitors) incorporate key details of the BEEP?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
18	Have staff completed an annual drill?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
19	Have key staff been trained in the basic procedures and protocols for fighting bushfires?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
20	Does the BEEP contain a list of annual maintenance tasks such as clear gutters, maintain the Asset Protection Zone, exercise generators, hydrants and pumps?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
21	Has the local fire authority reviewed your plan and do they have a copy?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>

Section 3 – Preseason Preparation and Site Hardening

There are a number of actions which can be taken to prepare for and harden sites against attack by bushfire. These actions often can be implemented under the maintenance program and budget but in some instances engineered site hardening may require capital funding. Engineered site hardening may involve activities including (but not limited to) the installation of ember and radiation screens, the use of heat resistant paints, installation of pumps, generators and roof sprinklers or creation of fire breaks using heavy machinery.

Establishing and maintaining an Asset Protection Zone is a key part of site hardening and preparation for bushfires. An asset protection zone consists of two areas – an inner and an outer protection zone (IPZ and OPZ). The OPZ serves to reduce the potential length of flames, filtering embers and reduce the likelihood of a crown fire. The IPZ provides a defensible space and manages heat intensities at the building surface. To be effective an APZ must be adequately maintained.

1	Have you established an Asset Protection Zone (APZ) between critical buildings or infrastructure and surrounding bushland?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
2	If the answer to question 1 is No – do you require environmental or development approval to establish an APZ?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
3	Does the OPZ have tree canopy cover of no greater than 30% and is the understorey mowed annually?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
4	Does the IPZ have tree canopy cover of no greater than 15% with branches higher than 2 metres from the ground and at least 2 metres from a building roofline?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
5	Are garden beds located greater than 10 metres from exposed windows or doors?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
6	Has the APZ been mowed and maintained?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
7	Have exposed roof gutters had leaf debris removed?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
8	Have gutter guards been installed on roof gutters (where appropriate)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
9	Have generators and pumps been tested and exercised?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
10	Are critical items of research and other equipment wired into the emergency/back up (generator set) power circuits?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
11	Are there sufficient supplies of firefighting equipment (such as hoses and nozzles, extinguishers, rakes, shovels)?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
12	Are flammable liquids and chemicals stored in appropriate locations? Are these locations mapped?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
13	Do satellite phones have batteries which are charged and are they in working order?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
14	Is there access to a two way radio at the site?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
15	Are sufficient quantities of safety clothing, PPE and first aid supplies available?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
16	Can the HVAC system be configured in order to prevent smoke ingress to the building, or specific areas and are there procedures for this?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>

Section 4 – An Approaching Fire

There are a number of ways to monitor fire development and activity in the local area. Both the CFA, RFS and other state fire authorities have web sites which provide detail on the status of fires across their respective states. There are three levels of alert warnings in NSW which are:

1. **Advice** – A fire has started. There is no immediate danger. Stay up to date in case the situation changes.
2. **Watch and Act** - There is a heightened level of threat. Conditions are changing and you need to start taking action now to protect you and your family.
3. **Emergency Warning** - An Emergency Warning is the highest level of Bush Fire Alert. You may be in danger and need to take action immediately. Any delay now puts your life at risk.

The sight or smell of smoke is an obvious indicator that a fire is burning in the area and should be one of the first triggers for the activation of the Bushfire Emergency Plan. Further, prevailing and forecasted weather conditions should be monitored for changes which could increase the fire risk. Contact with the fire authority, institution and other response agencies should be made to alert them of you current status and to seek advice regarding the recommended course of action. You should monitor radio, TV and smart phone apps for regular updates on the status of the fire.

1	Are you aware of the current alert status for your area	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
2	Have you made contact with the fire and response authorities regarding your site status?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
3	Are you able to monitor updates via internet, TV, radio or smart phone apps?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
4	Are all staff and site visitors accounted for?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
5	Have you briefed all on-site personnel regarding the triggering of the BEEP?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
6	Are key staff at other campuses aware?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
7	Have you taken steps to prepare for the evacuation of stock to a safer location?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
8	Have you checked that all firefighting equipment is operational?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
9	Have you checked that firefighting water supplies are sufficient?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
10	Have you arranged for the evacuation of all non-essential personnel on the basis that is safe for them to evacuate?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
11	Has a spotter been nominated to monitor ember attack and spot fires?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
12	Have personnel been nominated to initiate asset protection tasks including sensitive equipment shutdown?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
13	Are remaining personnel ready to evacuate if it is safe to do so? In the event of catastrophic fire conditions – fire authority advice will likely be evacuate early before conditions make it unsafe to do so?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
14	Have you developed a strategy for defending the critical assets?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>

Section 5 – On the Fire Ground

Hopefully, the assistance of the local fire authority will be available to help defend the critical assets. However, depending upon the extent and intensity of the fire, the authority's available resources as well as access to your site, they may not be able to attend. You will need to make a decision, based on best available information, whether to stay and defend the property, evacuate to a safer place or if conditions become catastrophic - to evacuate to a place of last resort. Every bushfire event will be different and no single procedure will account for every situation. Notwithstanding this, there are a number of principles which universally apply. The main principle to remember is life above property.

1	Have you identified a place of last resort?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
2	Are you aware of the situational elements which will decrease your Margin of Manoeuvre? For an explanation of this concept and principle – see the additional reading section below.	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
3	Have you developed a communication protocol for the fire ground?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
4	First aid kit on hand? Survival kit on hand – food, water, blankets, clothing, torch, personnel lists and copy of BEEP Evacuation kits on hand – personal items and EPIRB	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>

Section 6 – Post Fire Recovery

Hopefully the planning and preparation work undertaken prior to the fire would have reduced the extent of any losses at the site. Ideally the site BCP will contain expanded detail on the items listed below.

1	Have you assessed the extent of the damage to buildings and contents and documented this assessment, including photographic evidence?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
2	Have you assessed the risks on site, including risks presented by damaged buildings, fire flare up, falling trees?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
3	Have you assessed the damage to utilities, power, water and sewage?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
4	Have you performed a triage on injured stock, wildlife and research animals?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
5	Have you arranged veterinary treatment for injured stock or contacted WIRES (Wildlife Rescue Organisation) for assistance with injured wildlife?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
6	Have you made the site safe for the conduct of initial clean up and recovery work?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
7	Have you arranged for short term suitable accommodation and associated office supplies?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
8	Have you notified the Mutual of the loss and engaged a loss assessor?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
9	Have you established a recovery job number on the finance expenditure ledger?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
10	Have you prepared a short – medium term schedule of recovery works?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
11	Are you able to undertake a basic inventory of contents remaining?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
12	Have you arranged for additional security for the site if required?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
13	Have you triggered the campus/University BCP?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>

Additional Resources and Reading

www.myfireplan.com.au/Plan

<http://www.rfs.nsw.gov.au/resources/bush-fire-survival-plan>

Margin of Manoeuvre:

<http://apfmag.mdmpublishing.com/improving-safety-and-performance-on-the-fireground/>

This document is provided for informational purposes only and contains general advice that is given without taking into account member's objectives, financial situation or needs.

Please consider the appropriateness of the information and any general advice provided in light of your objectives, financial situation or needs. Please read the Product Disclosure Statement (PDS) to reference the exact protection terms and conditions, and before acting on the advice offered, please seek separate professional legal or financial advice.

The content mentioned in this document is provided to support and does not constitute professional advice, and you accept and agree that following any information or recommendations provided herein is at your risk.

