



Department of Planning,
Lands and Heritage



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Western Australia.*

Position Statement:

Tourism land uses in bushfire prone areas

November 2019

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1. Policy Intent

The intent of this position statement is to provide guidance for tourism land uses within bushfire prone areas. The position statement maintains primacy for the protection of life but also recognises that the protection of property or infrastructure may be secondary to the social and economic development of a region. If human safety can be satisfied, the asset may be considered 'replaceable' and its bushfire construction level determined to the degree necessary.

2. Tourism land uses in bushfire prone areas in Western Australia

The social and economic importance of tourism is recognised in the State Planning Strategy and many regional and local planning strategies. This position statement recognises the need to provide a framework to facilitate appropriate tourism opportunities across Western Australia where they are supported by a regional strategy, local planning strategy or local planning scheme.

Many tourism land uses are intrinsically linked to the natural landscape values of an area and often, to the remoteness of the location. This link to natural amenity and remote locations makes it difficult for many tourism land uses to meet the current provisions of *State Planning Policy 3.7 Planning in Bushfire Prone Areas (SPP 3.7)*, the supporting *Guidelines for Planning in Bushfire Prone Areas (Guidelines)* and the deemed to satisfy provisions of the *National Construction Code*.

Developing tourism land uses within remote and/or heavily vegetated areas comes with an inherent risk of bushfire, which can be reduced but never fully eliminated. Such risks must be understood in order to anticipate and manage them and foster a culture of resilience at all levels. Local governments should improve the education of tourists by way of

prominent signage and/or pamphlets at locations including the visitors' centre and local government offices; land owners and operators should accept responsibility for tourists and visitors using their facilities; and importantly, tourists and visitors alike should be aware of the risks, particularly in remote areas where there is unlikely to be a caretaker on site.

3. Application of this policy

For the purpose of the position statement, tourism land uses refer to short-term accommodation, which means temporary accommodation provided either continuously or from time-to-time, with no guest accommodated for more than three months in any 12-month period. The position statement is also relevant for tourism day uses including art gallery, brewery, exhibition centre, hotel, reception centre, restaurant/café, small bar, tavern and wineries (as defined in the *Planning and Development [Local Planning Schemes] Regulations 2015*).

Tourism land uses are considered vulnerable land uses under SPP 3.7 and the preparation of a Bushfire Management Plan (BMP) and an Emergency Evacuation Plan (EEP) should be undertaken in accordance with the Guidelines for a vulnerable land use.

The position statement provides acceptable solutions (policy measures) to guide the development of a variety of tourism land uses and a framework for the development of performance principle-based solutions. Any application supported by a risk assessment will be treated as a performance principle-based solution.

In accordance with the Guidelines, vulnerable land uses, with the exception of minor development, should be referred to the Department of Fire and Emergency Services (DFES) for advice.

4. Policy objectives

This position statement seeks to achieve the following objectives:

- maintain primacy for the protection of life, but also recognise preservation of property or infrastructure may be secondary to the social and economic development of a region
- provide bushfire protection relevant to the characteristics of the tourism land use
- provide bushfire risk management measures that mitigate the identified risks
- achieve a balance between bushfire risk management measures, environmental protection, biodiversity management and landscape amenity.

5. Policy measures

Applications for tourism land uses should be assessed against the acceptable solutions (policy measures) included in Table 1 of this position statement.

5.1 Tourism land uses

Different tourism land uses demonstrate different characteristics and may require different levels of protection. Reasons for setting bushfire protection measures specific to the type of tourism land use include, but are not limited to:

- the presence of a resident/manager on site, thereby improving the potential for informed emergency evacuation decisions
- construction under Australian Standard (AS) 3959 may be impractical (that is, tents and caravans) or the dwelling may already exist and not constructed in accordance with AS 3959 remoteness of the site, including proximity to emergency services
- whether the land use involves overnight stay.

The following are 'use classes' as defined in the *Planning and Development [Local Planning Schemes] Regulations 2015*.

5.1.1 Bed and breakfast and holiday house:

A bed and breakfast means a dwelling used by a resident of the dwelling to provide short-term accommodation, including breakfast, on a commercial basis for not more than four adults or one family and containing not more than two guest bedrooms.

Holiday house means a single dwelling on one lot used to provide short-term accommodation but does not include a bed and breakfast.

The decision-maker may determine that a bed and breakfast or holiday house that is within a residential built-out area, satisfies the definition of 'minor development'. A simplified EEP should be provided, or alternatively compliance with the *Homeowner's Bushfire Survival Manual* (DFES, 2014) should be demonstrated, to reflect the residential scale of the vulnerable land use. In addition, a map should be included that identifies the subject property, the access routes available and destinations. The Simple Development Application BMP template should be used.

5.1.2 Caravan park:

As defined in the *Caravan Parks and Camping Grounds Act 1995* section 5.1, means an area of land on which caravans, or caravans and camps, are situated for habitation.

Standard type caravans, motor homes, holiday cabins and tents, including eco tents used for short-term accommodation generally cannot achieve any level of construction under AS 3959.

Consideration should be given to whether, in the event of a bushfire, the loss of these structures is a tolerable risk. If not, then an Asset Protection Zone (APZ) should be provided to minimise risk of loss of these structures during a bushfire event. This should be clearly detailed within the BMP. The emphasis should also be on early evacuation or closure on days of an elevated fire danger rating (FDR) or days of a total fire ban. These triggers should be identified through the BMP and EEP. However, in some scenarios, the EEP may determine that containing people on site is the safest option.

Remote camping grounds

Western Australia contains many camping grounds that are remote from townsites and emergency services, and require special consideration. Some of these provide limited facilities and may or may not include an on-site caretaker. Bushfire is an inherent risk in these areas and it is the responsibility of the owner/operator to inform visitors of the risk and the options available in the event of a bushfire. It is also the responsibility of those visiting these areas to understand and prepare for the risk. Vehicular access may be limited

to a four-wheel drive and potable water and water for firefighting may also not be available.

The use of remote camping grounds in high-risk bushfire prone areas during periods of elevated bushfire danger is discouraged. The BMP should identify the risks and propose bushfire management measures to reduce this risk. This could include improvements to vehicular access, signage and identification of areas of 'least risk' for the camp sites (Section 5.2).

The importance of identifying potential risks and options for seeking on-site shelter should be considered through the preparation of the EEP.

5.1.3 Tourism day uses:

This refers to tourism land uses that involve no overnight stay and include, but is not limited to, art gallery, brewery, exhibition centre, hotel, reception centre, restaurant/café, small bar, tavern, and wineries. It should be noted that not all tourism day uses are considered vulnerable land uses. Vulnerability should be determined on a case by case basis, in accordance with section 5.5 of the Guidelines. Generally, when located in residential built-out area, visitors will be familiar with the environment, and as such, should not be considered vulnerable.

Day uses present similar challenges to short-term accommodation in that many of these land uses rely on the natural environment and as such, are often located outside residential built-out areas.

However, many of these land uses can rely on closure in response to a pre-determined fire danger rating and/or on the issue of a total fire ban on any given day. Most of these uses would have a manager and/or staff member on site at all times, who is able to activate these emergency procedures. In most cases visitors to the site would have travelled in their own or shared vehicle or tourist bus and would be able to evacuate the premises in the manner they came. Details on emergency management should be detailed in an EEP.

5.2 Bushfire risk assessment

Developing tourism land uses within remote and/or heavily vegetated areas comes with an inherent risk of bushfire, which can be reduced but can never fully eliminated. Such risks must be understood to anticipate and manage them and foster a culture of resilience at all levels.

This position statement provides for a risk-based assessment and if necessary, the use of contingencies to reduce the risk to acceptable levels. Evacuation in response to a bushfire alert or warning, and/or the provision of an on-site bushfire shelter as a

place of last resort are contingency options that may be suitable for some tourism land uses.

The *National Emergency Risk Assessment Guidelines* (NERAG) handbook provides an emergency-related risk assessment method consistent with the *Australian/New Zealand Standard Risk Management – Principles and Guidelines* (ISO31000:2009). These principles should be applied to assist with demonstration of compliance with this position statement (Table 2).

A key component of the risk assessment will be consideration of the broader landscape and the risk of a landscape scale fire. A heavily timbered area, such as a national park will present increasing challenges with landscape scale bushfires and safe evacuation.

The risk assessment should be included within the BMP and decision-makers will need to be satisfied that the assessment:

- determines the likelihood or probability of a landscape scale bushfire event (based on a quantitative analysis of historical data)
- determines the consequences of a bushfire event, such as loss of life and/or loss of infrastructure (based on historic data and/or modelling)
- evaluates the risk

- proposes risk treatment measures to reduce the risk to an acceptable level (such as provision of access routes, on-site shelter, early evacuation and APZs), and
- identifies an appropriate process for ongoing monitoring and review of risk management for the life of the development.

5.3 Contingency measures

This position statement recognises that for different landscape risk scenarios, a range of strategies including sheltering on-site, sheltering off-site (evacuation) and closure of facilities will need to be developed. The declaration of a total fire ban by the emergency services is an appropriate trigger for the activation of the EEP arrangements. This is discussed below.

5.3.1 Sheltering on-site

The early evacuation of visitors and staff based on an imminent bushfire threat should always be the first consideration and will form the basis of a successful EEP. Care must be taken to avoid creating a perception that sheltering on-site within a designated building or open space area, will provide a degree of protection that aligns with it being considered a first resort option.

Generally, sheltering on-site must be accepted as being a last resort option when it is no longer safe to evacuate to an area not prone to bushfire risk or when DFES has issued advice that it is no longer safe to evacuate. It should be emphasised that sheltering on-site is not a standalone contingency to managing risk to life safety. The EEP should identify the significant risks involved in planning to shelter on-site, due to the uncertainty, variability and indeterminacy of exposure to bushfire. The on-site shelter should be provided with sufficient space for the maximum number of employees and visitors that could be on-site at any given time. The shelter should be within easy walking distance from the tourism land use, with designated and sign-posted footpaths.

Shelter on-site in a nominated building

The building nominated to be used as an on-site shelter, should be designed to withstand a bushfire attack in the form of wind, smoke, embers, radiant heat and flame contact. A building proposed for this purpose needs to have a sufficient separation distance from the predominant bushfire prone vegetation to avoid exposure to a radiant heat flux exceeding 10kW/m² (with an assumed flame temperature of 1200K). This separation reduces potential fire spread between primary vegetation and the building and enables firefighters wearing protective clothing to approach the building for a

short period of time. Any proposed on-site shelter in a nominated building will be assessed against the *National Construction Code* and the *ABCB Design and Construction of Community Bushfire Refuges Handbook* (Australian Building Codes Board, 2014). The building will need to be designed and certified by a suitably qualified fire engineer.

The ongoing maintenance of the building and the surrounding separation distances from the bushfire prone vegetation will be the responsibility of the owner/operator. A 'maintenance plan' should detail the maintenance requirements and annual testing requirements. It is recommended that the annual testing be undertaken by a fire engineer.

It is recommended that the following conditions are imposed on a development approval.

1. The on-site bushfire shelter must be designed and constructed by a suitably qualified fire engineer in accordance with the National Construction Code and the *ABCB Design and Construction of Community Bushfire Refuges Handbook* (2014).
2. Prior to occupation of the development, a final inspection of the on-site bushfire shelter must be undertaken by a suitably qualified fire engineer with fire risk assessment expertise, accredited with Engineers Australia. The fire engineer shall

provide certification, to the satisfaction of the local government, that the works have been completed in accordance with the requirements of the *National Construction Code and the ABCB Design and Construction of Community Bushfire Refuges Handbook (2014)*.

3. Prior to occupation of the development, an on-site bushfire shelter maintenance plan must be prepared by a suitably qualified fire engineer with fire risk assessment expertise, accredited with Engineers Australia, and must include:
 - a) details of maintenance requirements, and
 - b) details of annual testing requirements for operational compliance.
4. Annual testing shall include the lodgement of a compliance certification by a suitably qualified fire engineer, to the local government at least one month prior to the start of the bushfire season.

Shelter on-site in a nominated open space area

Where a tourism land use, such as a camping ground that provides no facilities or built structures that could be utilised for on-site shelter, a risk assessment may

determine that an open space area is acceptable for on-site shelter as a last resort.

Where an open space area is being proposed, the site and surrounding site vegetation modification and management should seek to achieve a radiant heat flux of 2kW/m² or less (with an assumed flame temperature of 1200K). A person is able to withstand a radiant heat flux of 2kW/m² without protection, however it is important to recognise an open space area will provide limited, if any protection and therefore those sheltering are likely to be impacted by smoke, sand, sun and wind.

While the separation distances from bushfire prone vegetation to achieve 2kW/m² are likely to be considerable, some remote coastal camping sites may be able to utilise the beach as an open space area to shelter. Consideration will need to be given to the anticipated duration of the bushfire event, including the recovery period. Any ability to provide some shelter, such as a roofed area or shielding, would be beneficial.

The ongoing maintenance of the separation distances from the bushfire prone vegetation will be the responsibility of the owner/operator. It is recommended that the following conditions be imposed on a development approval.

1. A bushfire on-site shelter maintenance plan must be prepared by a Level 3 bushfire planning practitioner to the satisfaction of the local government, to detail the maintenance requirements prior to commencement of operation.
2. Lodgement of a compliance certification by a Level 3 bushfire planning practitioner to the local government, at least one month prior to the commencement of the bushfire season.

5.3.2 Early evacuation or closure of a tourism land use

Consideration should be given to the closure of a tourism land use in response to a pre-determined fire danger rating and/or the issue of a total fire ban on any given day. This option would be reliant on a caretaker or staff member residing on-site and able to activate the approved EEP.

Closure requires adoption of a trigger point. For a residential property, DFES generally recommends leaving an area when the fire danger rating is 'catastrophic' or 'extreme'.

In some situations, such as remote tourism land uses, it may be a safer option to require all staff and guests to remain on-site for the day as opposed to undertaking day visits where communication could be more difficult. It is also acknowledged that closure may not be realistic for overnight facilities, however could apply where there are incidental day uses.

Early evacuation in response to the DFES alerts during a bushfire event should be reinforced through an EEP.

- **Advice** – there is a bushfire in the area, but there is no known risk
- **Watch and act:** there is a possible risk to lives or homes; you need to leave or get ready to defend
- **Emergency warning:** you are in danger and need to take immediate action to survive; there is a threat to lives or homes.

An appropriate 'safer place' should be identified within the EEP in the event of a bushfire or trigger point. A 'safer place' is a place that is not prone to bushfire risk, is generally not on the subject site, is accessible and in reasonable proximity to the tourism land use. Local governments are encouraged to identify suitable buildings or areas for use by the community in the event of a bushfire emergency through their Local Emergency Management Framework.

5.4 Emergency Evacuation Plan (EEP)

It is a requirement under SPP 3.7 for all vulnerable land uses to be accompanied by an EEP, which details implementation mechanisms to support the BMP. Further guidance can be found in section 5.5.2 of the Guidelines, online at dplh.wa.gov.au in

A Guide to Developing a Bushfire Emergency Evacuation Plan and the Bushfire Emergency Evacuation Plan template.

The purpose of the EEP is to improve the preparedness of vulnerable land uses by identifying steps to be followed before, during and after a bushfire event.

The EEP should be prepared in consultation with the owner/operator, local government and local fire brigade as the differences in responses by emergency services, including time taken to respond, should be understood and included in the plan.

The success of an EEP will be dependent on the transfer of knowledge from the bushfire planning practitioner, to the landowner/operator and staff through regular training and then to those visiting the site through appropriate signage and/or information dissemination.

The local government is encouraged to require as a condition of development approval, regular review of the EEP by an accredited bushfire planning practitioner, to ensure it remains valid and relevant.

5.5 Peer review

A risk management approach to bushfire is an emerging field in Western Australia. The need to identify appropriate quantitative tolerable standards for risk and acceptable risk mitigation measures will be subject to continual

review and improvement. A peer review should be undertaken by a suitably qualified practitioner to support the recommendations of a BMP where a risk assessment has been prepared.

Definitions

Acceptable risk: The level of risk that is sufficiently low that society is comfortable with it.

Consequence: An impact on the natural, economic, built or social environments because of the hazard. The consequences are influenced by the vulnerability of elements at risk, by the exposure of elements at risk to the hazard, and by the characteristics of the hazard.

Hazard: Any source of potential harm or a situation with a potential to cause loss. A hazard is therefore the source of risk.

Likelihood: The chance of an event occurring. Likelihood may be represented qualitatively using measures such as 'likely', 'possible' and 'rare'.

Minor development: As per SPP 3.7.

On-site shelter: A designated building or open space area that can provide shelter before, during and after a bushfire event.

Safer place: A public building or land (such as an oval) registered by the local government for use by the community in the event of a bushfire (or other) emergency. It provides for improved protection of human life during the onset and passage of a bushfire. It is in a central location where people facing an immediate threat to their personal safety or property can gather and seek shelter from the impact of bushfire.

Short-term accommodation: Temporary accommodation provided either continuously or from time to time with no guest accommodated for more than three months in any 12-month period.

Residential built-out area: A lot that has access to reticulated water and is within or contiguous with, an urban area or town (or similar).

Risk treatment: The partial or complete removal of a risk source or some improvement in the controls to reduce the level of risk.

Unacceptable risk: A level of risk that is so high that only avoidance enables the elimination of the risk. Loss of life represents unacceptable risk.

References

Australian Institute for Disaster Resilience
2015, *National Emergency Risk Assessment
(NERAG) Handbook*, Australia

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Strategy*, Australia

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*Construction and Project Management
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Victoria

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Bushfire Refuges – Handbook*. Australian
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Bushfire Protection*, NSW

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NSW Rural Fire Service 2014, *Ecotourism
factsheet 1/14*, NSW

Table 1: Tourism land uses

Intent: To provide bushfire protection for tourism land uses relevant to the characteristics of the occupants and/or surrounding community to preserve life and reduce the impact of bushfire on property and infrastructure.

PERFORMANCE PRINCIPLE	ACCEPTABLE SOLUTION (POLICY MEASURE)	RISK ASSESSMENT
<p>Bed and Breakfast and Holiday House – not minor development (where the dwelling is existing and is outside a residential built-out area)</p>		
<p>1. Siting and design To provide suitable building design, construction and sufficient space to ensure radiant heat levels do not exceed critical limits for emergency services personnel undertaking operations, including supporting or evacuating occupants</p>	<p>1.1 Siting and design to reduce levels of radiant heat, smoke and ember attack through the provision of an APZ to improve the vulnerability of the existing dwelling.</p> <p>1.2 Existing dwellings in BAL-40 or BAL-FZ should only be considered where two-way access is provided; or it is demonstrated through a risk assessment, that the risk can be mitigated. Where there is a permanent resident or caretaker on-site, this can form part of a risk mitigation package.</p> <p>1.3 Where the existing dwelling is located in an area above BAL-LOW, modifications should be undertaken to improve the building’s resistance to ember attack commensurate to its determined BAL level, except where that existing building was required to comply with a higher level of bushfire resistant construction under any other written law.</p>	<p>Where dwelling is in BAL-40 or BAL-FZ and/or where the acceptable solutions for vehicular access cannot be achieved.</p>
<p>2. Vehicular access To provide a safe operational access for emergency services personnel in suppressing a bushfire, while residents and visitors are accessing or egressing the site</p>	<p>2.1 Where an existing dwelling is in BAL-40 or BAL-FZ, two-way access should be provided; or it should be demonstrated through a risk assessment that the risk can be mitigated.</p> <p>2.2 Where an existing dwelling achieves BAL-29 or below, the provision of one access route can be considered where it abuts moderate or low threat vegetation, and where it is demonstrated that secondary access (including an emergency access way) cannot be achieved.</p> <p>2.3 All roads should be through roads. Dead end roads are not recommended but if unavoidable, or they are existing, they should be no more than 200 metres.</p> <p>2.4 Access routes should achieve the requirements of Table 6 in the <i>Guidelines for Planning in Bushfire Prone Areas</i>.</p> <p>2.5 Private driveways longer than 50 metres require:</p> <ul style="list-style-type: none"> • passing bays every 200 metres with a minimum length of 20 metres and a minimum width of two metres (i.e. the combined width of the passing bay and constructed private driveway to be a minimum six metres); • Turn-around areas designed to accommodate type 3.4 fire appliances and to enable them to turn around safely every 500 metres (i.e. kerb to kerb 17.5 metres) and within 50 metres of a house; and • An all-weather surface (i.e. compacted gravel, limestone or sealed). 	
<p>3. Provision of water The provision of a permanent and secure water supply that is sufficient for firefighting purposes</p>	<p>3.1 The development or land use is provided with a reticulated water supply in accordance with the specifications of the relevant water supply authority and/or the local government; or</p> <p>3.2 Provision of a static water supply on the lot for firefighting purposes, that has an effective capacity of at least 10,000 litres in addition to any requirements for potable water.</p> <p>3.3 Dedicated water supplies shall be non-combustible (or suitably shielded) and located such that fire services can readily gain access to appropriate fittings and connect fire fighting vehicles to dedicated water supplies in a safe manner.</p>	

PERFORMANCE PRINCIPLE	ACCEPTABLE SOLUTION (POLICY MEASURE)	RISK ASSESSMENT
<p>Bed and Breakfast and Holiday House – minor development where the dwelling is existing or the dwelling is not yet constructed) (in residential built-out area)</p>		
<p>1. Siting and design To provide suitable building design, construction and sufficient space to ensure radiant heat levels do not exceed critical limits for emergency services personnel undertaking operations, including supporting or evacuating occupants</p>	<p>Where the dwelling is existing</p> <p>1.1 Siting and design to <u>reduce</u> levels of radiant heat, smoke and ember attack through the provision of an APZ to improve the vulnerability of the existing dwelling.</p> <p>1.2 Any dwelling determined to be BAL-40 or BAL-FZ is subject to justification under cl 6.7.1. of SPP 3.7</p> <p>Where the dwelling is not yet constructed</p> <p>1.3 In accordance with Element 2: Siting and Design of Development A2.1 Asset Projection Zone, contained within the <i>Guidelines for Planning in Bushfire Prone Areas</i>.</p>	<p>N/A</p>
<p>2. Vehicular access To provide a safe operational access for emergency services personnel in suppressing a bushfire, while residents and visitors are accessing or egressing the site</p>	<p>2.1 The provision of one access route which connects to the public road network, and provides safe access and egress.</p>	
<p>3. Provision of water The provision of a permanent and secure water supply that is sufficient for firefighting purposes</p>	<p>3.1 The development or land use is provided with a reticulated water supply in accordance with the specifications of the relevant water supply authority and/or the local government.</p>	

PERFORMANCE PRINCIPLE	ACCEPTABLE SOLUTION (POLICY MEASURE)	RISK ASSESSMENT
<p>Bed and Breakfast and Holiday House – not minor development (where the dwelling is not yet constructed and is outside a residential built-out area)</p>		
<p>1. Siting and design To provide suitable building design, construction and sufficient space to ensure radiant heat levels do not exceed critical limits for emergency services personnel undertaking operations, including supporting or evacuating occupants</p>	<p>1.1 In accordance with Element 2: Siting and Design of Development A2.1 Asset Projection Zone, contained within the <i>Guidelines for Planning in Bushfire Prone Areas</i>.</p>	<p>Where dwelling is in BAL-40 or BAL-FZ and/or where the acceptable solutions for vehicular access cannot be achieved.</p>
<p>2. Vehicular access To provide a safe operational access for emergency services personnel in suppressing a bushfire, while residents and visitors are accessing or egressing the site</p>	<p>2.1 Provision of one access route can be considered where it abuts moderate or low threat vegetation, and where it is demonstrated that secondary access (including an emergency access way) cannot be achieved.</p> <p>2.2 All public roads should be through roads. Dead end roads are not recommended but if unavoidable, or they are existing, they should be no more than 200 metres.</p> <p>2.3 Access routes should achieve the requirements of Table 6 in the <i>Guidelines for Planning in Bushfire Prone Areas</i>.</p> <p>2.4 Private driveways longer than 50 metres require:</p> <ul style="list-style-type: none"> • passing bays every 200 metres with a minimum length of 20 metres and a minimum width of two metres (i.e. the combined width of the passing bay and constructed private driveway to be a minimum 6 metres); • Turn-around areas designed to accommodate type 3.4 fire appliances and to enable them to turn around safely every 500 metres (i.e. kerb to kerb 17.5 metres) and within 50 metres of a house; and • An all-weather surface (i.e. compacted gravel, limestone or sealed). 	
<p>3. Provision of water The provision of a permanent and secure water supply that is sufficient for firefighting purposes</p>	<p>3.1 The development or land use is provided with a reticulated water supply in accordance with the specifications of the relevant water supply authority and/or the local government; or</p> <p>3.2 Provision of a static water supply on the lot for firefighting purposes, that has an effective capacity of at least 10, 000 litres in addition to any requirements for potable water.</p> <p>3.3 Dedicated water supplies shall be non-combustible (or suitably shielded) and located such that fire services can readily gain access to appropriate fittings and connect fire fighting vehicles to dedicated water supplies in a safe manner.</p>	

PERFORMANCE PRINCIPLE	ACCEPTABLE SOLUTION (POLICY MEASURE)	RISK ASSESSMENT
Caravan Park (includes camping ground)		
<p>1. Siting and design To provide sufficient space to ensure radiant heat levels do not exceed critical limits for emergency services personnel undertaking operations, including supporting or evacuating occupants</p>	<p>1.1 Siting and design to reduce levels of radiant heat, smoke and ember attack.</p> <ul style="list-style-type: none"> • Consideration should be given to the provision of an APZ to achieve 29kW/m² around the camp ground facilities, which may include the office, manager’s residence, camp kitchen and shower/laundry. • Consideration should be given to clustering of camp sites and securing an APZ around the entire development or providing an APZ to separate the site from the potential adjoining hazard. • Where there is no bushfire construction standard (i.e. tents and caravans and some eco tents) and the loss of these structures is identified in a risk assessment as a ‘tolerable’ risk, then no APZ is required and subject to a risk assessment, these structures may be located in areas of BAL-40 or BAL-FZ. <p>1.2 Where a building is to function as an on-site shelter, there must be sufficient separation distance from the predominant bushfire prone vegetation to avoid exposure to a radiant heat flux exceeding 10kW/m² (with an assumed flame temperature of 1200K); or where an open space area is to function as an on-site shelter, there must be sufficient separation distance from the predominant bushfire prone vegetation to avoid exposure to a radiant heat flux exceeding 2kW/m² (with an assumed flame temperature of 1200K).</p> <p>1.3 Buildings identified as suitable on-site shelter shall be designed and constructed in accordance with National Construction Code and the ABCB Community Shelter Handbook.</p>	<p>Where buildings or structures are located in BAL-40 or BAL-FZ and/or where the acceptable solutions for vehicular access cannot be achieved.</p>
<p>2. Vehicular access To provide a safe operational access for emergency services personnel in suppressing a bushfire, while residents and visits are accessing or egressing the site</p>	<p>2.1 Caravan parks located in residential built-out areas should provide one access route which connects to the public road network, and provides safe access and egress.</p> <p>2.2 Caravan parks located outside of residential built-out areas -where vehicular access in two different directions to two different destinations cannot be provided, the BMP should identify the risks and propose bushfire management measures to reduce this risk, which may include on-site shelter and or closure.</p> <p>2.3 All roads should be through roads. Dead end roads are not recommended but if unavoidable, or they are existing, they should be no more than 200 metres.</p> <p>2.4 Access routes should achieve the requirements of Table 6 in the <i>Guidelines for Planning in Bushfire Prone Areas</i>.</p>	
<p>3. Provision of water To provide an adequate supply of water for firefighting purposes to reflect the intended response to a bushfire event, by emergency services and/or the owner/ occupier</p>	<p>3.1 The development or land use is provided with a reticulated water supply in accordance with the specifications of the relevant water supply authority and/or the local government; or</p> <p>3.2 Where the intention is to actively defend property and infrastructure, provision of a minimum 10,000 litre static water supply for firefighting purposes per building/structure, in addition to any requirements for potable water; or</p> <p>3.3 Where the intention is to actively defend property and infrastructure, provision of a minimum 50,000 litre static water supply for firefighting purposes per 25 buildings/structures, to the satisfaction of the local government; and</p> <p>3.4 Dedicated water supplies shall be non-combustible (or suitably shielded) and located such that fire services can readily gain access to appropriate fittings and connect fire fighting vehicles to dedicated water supplies in a safe manner.</p>	

PERFORMANCE PRINCIPLE	ACCEPTABLE SOLUTION (POLICY MEASURE)	RISK ASSESSMENT
<p>Other (vulnerable) short-term accommodation – including motel, serviced apartments, tourist development, holiday accommodation and</p> <p>Vulnerable Day uses – including art gallery, brewery, exhibition centre, hotel, reception centre, restaurant/cafe, small bar, tavern, winery</p>		
<p>1. Siting and design To provide suitable building design, construction and sufficient space to ensure radiant heat levels do not exceed critical limits for emergency services personnel undertaking operations, including supporting or evacuating occupants</p>	<p>1.1 In accordance with Element 2: Siting and Design of Development A2.1 Asset Projection Zone, contained within the <i>Guidelines for Planning in Bushfire Prone Areas</i>.</p> <p>1.2 Where a building is to function as an on-site shelter, there must be sufficient separation distance from the predominant bushfire prone vegetation to avoid exposure to a radiant heat flux exceeding 10kW/m² (with an assumed flame temperature of 1200K); or where an open space area is to function as an on-site shelter, there must be sufficient separation distance from the predominant bushfire prone vegetation to avoid exposure to a radiant heat flux exceeding 2kW/m² (with an assumed flame temperature of 1200K).</p> <p>1.3 Buildings identified as suitable for on-site shelter shall be designed and constructed in accordance with <i>National Construction Code</i> and the <i>ABCB Community Shelter Handbook</i>.</p>	<p>Where buildings or structures are located in BAL-40 or BAL-FZ and/or where the acceptable solutions for vehicular access cannot be achieved.</p>
<p>2. Vehicular access To provide a safe operational access for emergency services personnel in suppressing a bushfire, while residents and visits are accessing or egressing the site</p>	<p>2.1 The provision of one access route can be considered where:</p> <ul style="list-style-type: none"> • the proposal is within a residential built-out area; or • the access route abuts moderate or low threat vegetation, and • where it is demonstrated that secondary access (including an emergency access way) cannot be achieved, and • the access route is not travelling back towards or through the hazard. <p>2.2 Access routes should achieve the requirements of Table 6 in the <i>Guidelines for Planning in Bushfire Prone Areas</i>.</p> <p>2.3 Private driveways longer than 50 metres require:</p> <ul style="list-style-type: none"> • passing bays every 200 metres with a minimum length of 20 metres and a minimum width of two metres (i.e. the combined width of the passing bay and constructed private driveway to be a minimum six metres); • Turn-around areas designed to accommodate type 3.4 fire appliances and to enable them to turn around safely every 500 metres (i.e. kerb to kerb 17.5 metres) and within 50 metres of a house; and • An all-weather surface (i.e. compacted gravel, limestone or sealed). 	
<p>3. Provision of water The provision of a permanent and secure water supply that is sufficient for firefighting purposes</p>	<p>3.1 The development or land use is provided with a reticulated water supply in accordance with the specifications of the relevant water supply authority and the local government; or</p> <p>3.2 Provision of a static water supply for firefighting purposes on the lot that has an effective capacity of 10,000 litres per building/structure in addition to any requirements for potable water; or</p> <p>3.3 Provision of a minimum 50,000 litre static water supply for firefighting purposes per 25 buildings/structures, to the satisfaction of the local government; and</p> <p>3.4 Dedicated water supplies shall be non-combustible (or suitably shielded) and located such that fire services can readily gain access to appropriate fittings and connect fire fighting vehicles to dedicated water supplies in a safe manner.</p>	

Table 2: Risk assessment framework adapted for planning in bushfire prone areas

STAKEHOLDER CONSULTATION	<p>Establish the context</p> <p>Confirm the purpose, objectives, scope and stakeholder consultation of the risk assessment. Identify the planning proposal, site and locality context.</p>	MONITORING AND REVIEW		
	<p>RISK IDENTIFICATION</p> <p>Bushfire hazard identification</p> <p>Undertake a vegetation assessment including consideration of the broader landscape. Identify fire weather, vegetation types and topography. Investigate fire history, key fire runs, emergency service response and options for evacuation.</p>			
	<p>VULNERABILITY ANALYSIS</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>Determine consequence</p> <p>Develop consequence scale and determine consequence.</p> </td> <td style="width: 50%; vertical-align: top;"> <p>Determine likelihood</p> <p>Develop likelihood scale and determine likelihood of loss of life and assets.</p> </td> </tr> </table>		<p>Determine consequence</p> <p>Develop consequence scale and determine consequence.</p>	<p>Determine likelihood</p> <p>Develop likelihood scale and determine likelihood of loss of life and assets.</p>
	<p>Determine consequence</p> <p>Develop consequence scale and determine consequence.</p>		<p>Determine likelihood</p> <p>Develop likelihood scale and determine likelihood of loss of life and assets.</p>	
	<p>RISK EVALUATION</p> <p>Evaluate identified risks</p> <p>Based on the bushfire hazard identification, likelihood of a bushfire event occurring and the possible level of consequence, evaluate the risk to people and property.</p>			
	<p>RISK TREATMENT</p> <p>Identify risk treatment options</p> <p>Identify potential risk treatment options, including contingency measures and management, to ensure preservation of life, minimise risk to assets to an acceptable level and reduce the level of risk identified from the risk matrix/vulnerability analysis.</p> <p>Evaluate risk treatment options</p> <p>Demonstrate the suitability and effectiveness of these risk treatments options.</p>			
<p>IMPLEMENTATION</p> <p>Prepare Emergency Evacuation Plan (EEP)</p> <p>Prepare an EEP that ensures effective implementation of these risk management measures for the duration of the tourism land use.</p>				