

© Department of Fire and Emergency Services 2020

Other than permitted under the Copyright Act 1968, no part of this publication may be reproduced by any means without written permission of the Department of Fire and Emergency Services of Western Australia. Enquiries should be addressed to:

Office of Bushfire Risk Management
Department of Fire and Emergency Services
PO Box P1174 Perth WA 6844

Website: dfes.wa.gov.au/OBRM **Email**: obrm@dfes.wa.gov.au

Wherever a third party holds copyright in material presented in this publication, the copyright remains with that party. Their permission may be required to use the material.

This document contains Standards Australia Ltd and ISO copyrighted material that is distributed by SAI Global on Standards Australia Ltd and ISO's behalf. Standards Australia Ltd and ISO's material is not for resale, reproduction or distribution in whole or in part without written permission from SAI Global Ltd:

tel + 61 2 8206 6355 or copyright@saiglobal.com

Disclaimer

The information contained herein is provided by the Office of Bushfire Risk Management, Department of Fire and Emergency Services ("the Office") in good faith as a public service. This material has been released as a general guide. Recipients should exercise their own skill and care in respect to its use. Persons relying on this information do so at their own risk. The Office does not guarantee the accuracy of this information, and it is the responsibility of recipients to make their own enquiries as to the accuracy, completeness and relevance of the information for their purposes. If you consider any aspect of this information is of significance to you, you should obtain professional advice relevant to your particular circumstances. The Office, its servants and agents expressly disclaim liability for any act or omission made in reliance on this information or for any consequence of such act or omission. The Office, its servants and agents expressly disclaim liability for loss or damage howsoever caused, including as a result of negligence of the Office.

These Guidelines were prepared by the Office of Bushfire Risk Management (OBRM) and have been endorsed as the standard for Bushfire Risk Management (BRM) planning in Western Australia. OBRM would like to thank all those who contributed to the development and testing of these Guidelines, especially those that have been involved in the BRM Planning Program since its inception in 2015.

Currency of the Guidelines

These Guidelines describe the standard and methodology for developing a BRM Plan. The Guidelines were updated in 2020 to align them with contemporary practice. A full review of the Guidelines and the methodology used in BRM Planning is currently underway.

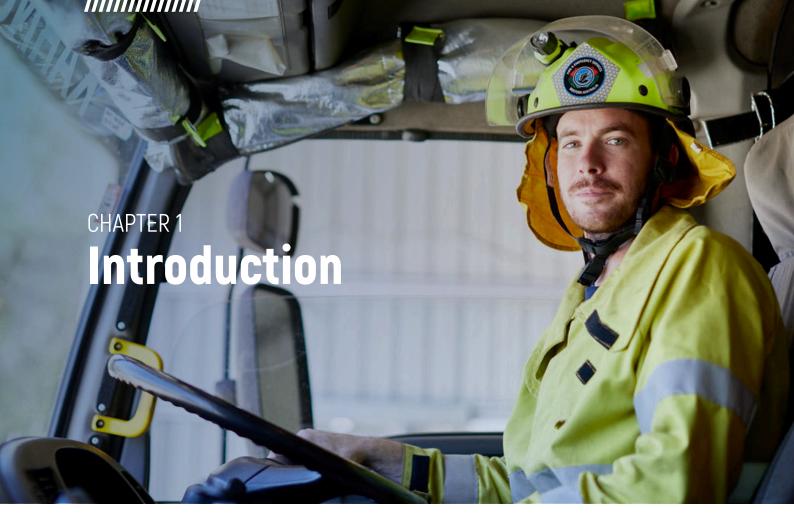
The formulas and data used within these Guidelines are based on the best available information at the time of development. These may be subject to change over time as new knowledge becomes available.

Contents

Chapter 1 - Introduction	6
1.1 Background	6
1.2 What is Bushfire Risk?	6
1.3 What is a Bushfire Risk Management Plan?	7
Chapter 2 – Developing a Bushfire Risk Management Plan	10
2.1 The Bushfire Risk Management Planning Process	10
2.2 Roles and Responsibilities	12
2.3 Record Keeping and Auditing	16
2.4 Communication Strategy	16
2.5 Establishing the Context	17
2.6 Planning Areas	22
Chapter 3 – Assets and Risk Assessment	23
3.1 Asset Identification	23
3.2 The Bushfire Risk Assessment Process	28
3.3 Assessing Consequence	29
3.4 Assessing Likelihood	37
Chapter 4 - Risk Evaluation and Treatment	38
4.1 Purpose of Risk Evaluation	38
4.2 Risk Acceptability	38
4.3 Treatment Priority	39
4.4 Risk Treatment	40
Chapter 5 – Approval, Monitoring, Review and Reporting	44
5.1 The Approval Process	44
5.2 Dispute Resolution	45
5.3 Publishing the Bushfire Risk Management Plan	45
5.4 Annual Reporting	45
5.5 Reviewing the Bushfire Risk Management Plan	46

		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
		HH

Glossary	47
Common Abbreviations	49
Appendix A - Assessment Criteria	50
Appendix B – Self Assessment Checklist	53
List of Figures	
Figure 1 – Components of the Bushfire Risk Management Plan	{
Figure 2 – The Bushfire Risk Management Process	1
Figure 3 – Bushfire Risk Management Plan Roles and Responsibilities	15
Figure 4 – The Bushfire Risk Management Plan Approval Process	45
List of Tables	
Table 1 – Human Settlement Asset Categories and Subcategories	24
Table 2 – Economic Asset Categories and Subcategories	25
Table 3 – Environmental Asset Categories and Subcategories	26
Table 4 – Cultural Asset Categories and Subcategories	27
Table 5 – Determining the Risk Rating	28
Table 6 – Consequence Ratings for Human Settlement Assets	30
Table 7 – Consequence Ratings for Economic Assets	32
Table 8 – Vulnerability Assessment for Economic Assets	33
Table 9 – Consequence Ratings for Environmental Assets	34
Table 10 – Vulnerability Ratings for Environmental Assets	35
Table 11 – Consequence Ratings for Cultural Assets	36
Table 12 – Likelihood Ratings for Bushfire Risk	37
Table 13 – Treatment Priorities	4(



1.1 Background

Under the *State Hazard Plan - Fire*, local governments in Western Australia (WA) with significant bushfire risk are required to develop an integrated Bushfire Risk Management (BRM) Plan that addresses bushfire risk across all land tenures. These *Guidelines for Preparing a Bushfire Risk Management Plan* (the Guidelines) describe the process and requirements for identifying and assessing bushfire risk and preparing a BRM Plan.

The BRM Planning Program is a state-wide initiative led by the Department of Fire and Emergency Services (DFES) to support local governments across WA to develop a contextualised BRM Plan to reduce bushfire risk within their local community. The tools, templates and guidance available to local governments participating in the BRM Planning Program align to the standards established in these Guidelines.

1.2 What is Bushfire Risk?

Bushfire risk can be defined as the chance of a bushfire igniting, spreading and causing damage to the community or the assets they value.

1.3 What is a Bushfire Risk Management Plan?

A BRM Plan is a strategic document developed by local government to facilitate a coordinated approach towards the identification, assessment and treatment of assets exposed to bushfire risk. The aim of a BRM Plan is to effectively manage bushfire risk in order to protect people, assets and other things of local value. The objectives of a BRM Plan are to:

- · guide and coordinate a tenure blind, multi-agency BRM program over a five-year period;
- document the process used to identify, analyse and evaluate risk, determine priorities and develop a plan to systematically treat risk;
- · facilitate the effective use of the financial and physical resources available for BRM activities;
- · integrate BRM into the business processes of local government, land owners and other agencies;
- · ensure there is integration between land owners, BRM programs and activities; and
- document processes used to monitor and review the implementation of treatment plans to ensure they are adaptable and that risk is managed at an acceptable level.

Specifically, the BRM Plan and associated data:

- establishes the context for managing bushfire risk in a local government, including defining the risk assessment criteria and process and the level of acceptable bushfire risk;
- identifies assets of value that are at risk from bushfire including communities, infrastructure, economic, cultural and environmental assets;
- captures the risk ratings assigned to assets identified and assessed in the BRM Plan and their priority for treatment;
- · describes and prioritises actions required to treat bushfire risk according to the risk criteria;
- · assigns risk ownership and responsibility for implementing treatments; and
- specifies a timeframe for treatment owners to implement the required treatments.

Figure 1 provides an overview of the templates, data and reports that form part of the BRM Plan and support the BRM planning process. Appended to the BRM Plan are the Communication Strategy and the Local Government Wide Controls Table. The Communication Strategy identifies the key stakeholders to be involved in the BRM planning process, their role in the BRM Plan and the objectives for communication activities. The Local Government Wide Controls Table is used to identify and record the programs and activities currently undertaken by the local government and other stakeholders that contribute to managing bushfire risk within the local government.

The Bushfire Risk Management System (BRMS) is an online application that supports the development and implementation of BRM Plans. BRMS is used to record and map assets, undertake risk assessments and record the treatments associated with specific assets. BRMS can also generate reports and maps that provide a summary of the assets identified as being at risk from bushfire within the local government and their associated risk ratings and treatments.

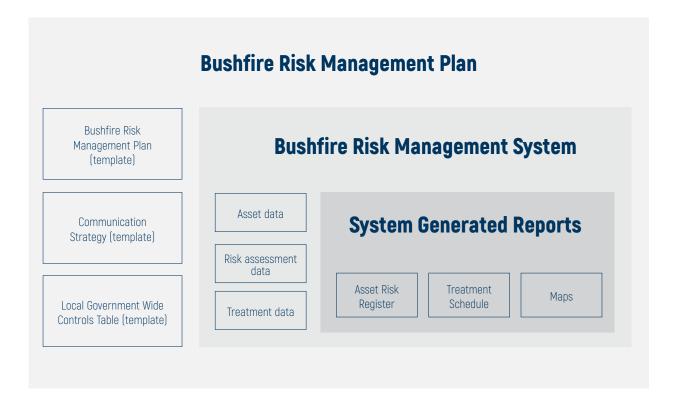


FIGURE 1 - Components of the Bushfire Risk Management Plan

The development and implementation of the BRM Plan and Treatment Schedule must comply with relevant legislation, regulations, policy, standards and guidelines, including those related to:

- · Bushfire and emergency management;
- · Land and asset management;
- · Protection of environmental and heritage values;
- · Land development; and
- · Risk management.

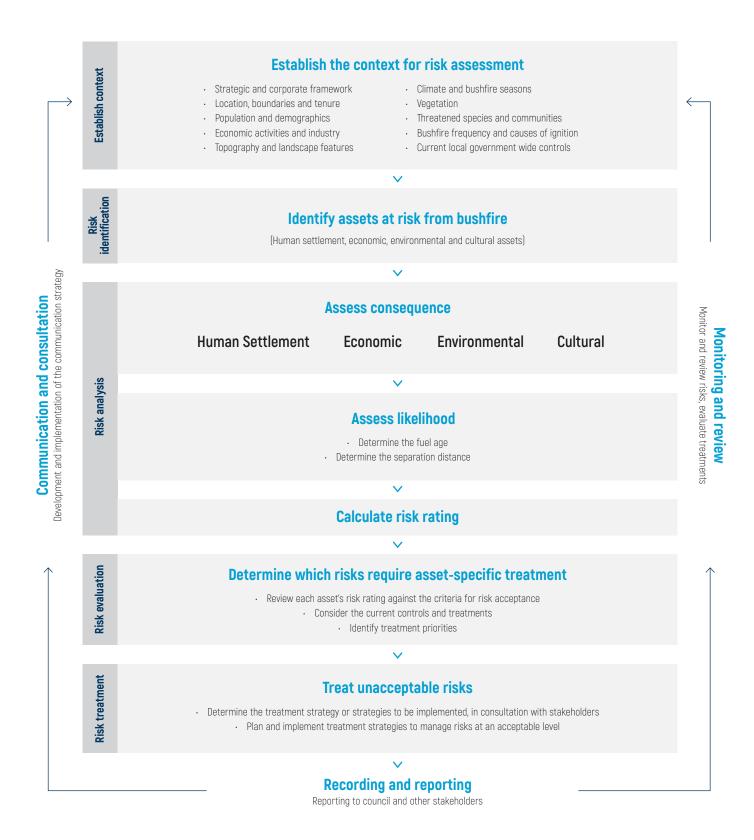
Local governments need to ensure that BRM planning processes are integrated into their organisations' corporate framework, including relevant internal processes, policies and procedures. Alignment of organisational processes will ensure activities related to the BRM Plan comply with legislative requirements, adhere to best practice standards and support the local government's goals and objectives. *The BRM Planning Handbook* provides a detailed list of relevant legislation, policies and other documents that relate to the BRM Plan and associated activities.



2.1 The Bushfire Risk Management Planning Process

The BRM planning process involves identifying assets that are important, or determined to have local value and assessing the consequence and likelihood of a bushfire impacting upon these assets (Figure 2). Based on the risk rating, assets are prioritised for treatment. When a risk treatment is recommended, monitoring and review processes ensure that risks are continuously managed.

The Bushfire Risk Management Planning Process



11

FIGURE 2 - The Bushfire Risk Management Process¹

¹Adapted from AS/NZS ISO 31000 with permission from SAI Global under licence number 1510-c081.

2.2 Roles and Responsibilities

2.2.1 Local Government

The State Hazard Plan – Fire requires local governments with bushfire risk to develop an integrated BRM Plan for their area. While DFES, Department of Biodiversity, Conservation and Attractions (DBCA) and other significant land owners and asset managers will contribute to the process, local government are the custodians of the BRM Plan and coordinate its development and ongoing review. With support from DFES, local governments negotiate a commitment from land owners to treat risks identified in the BRM Plan. This is appropriate in light of the powers and responsibilities given to local government under the Bush Fires Act 1954, their responsibility for community service provision at the local level, local knowledge, existing relationships with land owners and involvement in local planning, fire management and community engagement programs. Local governments are encouraged to engage their Bush Fire Advisory Committee (BFAC) and Local Emergency Management Committee (LEMC) in the development and implementation of their BRM Plan to ensure the outcomes of BRM planning are integrated into emergency management activities.

Local governments implement treatment strategies to address risk on land that they manage. As part of the approval process, the BRM Plan is submitted to council for approval and adoption in their local government.

2.2.2 Department of Fire and Emergency Services

DFES is the state government agency responsible for delivery of the BRM Planning Program. In line with the agency's responsibilities under the *State Hazard Plan - Fire*, DFES will participate in, and contribute to locally developed and implemented BRM Plans. DFES support local government by providing expert knowledge and advice in relation to bushfire risk, prevention and treatment; assisting with the identification of appropriate risk treatment strategies and engaging State and Federal government agencies in the BRM planning process.

DFES facilitates a number of state-wide programs and initiatives that are likely to be included as treatment strategies in a BRM Plan. DFES may also act in support of other agencies and land owners that do not have the capacity to undertake particular treatment strategies, such as planned burning, on their own land.

DFES is the custodian of BRMS and undertakes all aspects of system administration, user support, quality assurance and the training. Access to BRMS is provided to local governments participating in the BRM Planning Program to support the development and implementation of BRM Plans.

DFES administer and coordinate the Mitigation Activity Fund (MAF) Grants Program on behalf of the State. Local governments that have an endorsed BRM Plan² are eligible to apply for MAF funding though an annual competitive grants process.

DFES' Office of Bushfire Risk Management (OBRM) provides policy advice and undertakes risk assurance programs to support the management of bushfire risk and related activities in accordance with AS/NZS ISO 31000 and other best practice standards. OBRM has developed and endorsed these Guidelines as the standard for preparing a BRM Plan and is responsible for their periodic review.

In addition, OBRM will review a local government's draft BRM Plan for consistency with the Guidelines, prior to approval by the local government's council. OBRM may also implement a quality assurance and audit program in relation to BRM planning. OBRM report annually to the Fire and Emergency Services (FES) Commissioner on the state of bushfire risk across WA.

2.2.3 Department of Biodiversity, Conservation and Attractions - Parks and Wildlife Service

In line with their responsibilities under the *State Hazard Plan – Fire*, DBCA will participate in, and contribute to, locally developed and implemented BRM Plans. DBCA undertake a substantial annual treatment program to mitigate bushfire risk on land they manage. Their programs will be important to consider as part of the BRM planning process. Local governments are encouraged to seek advice from DBCA when identifying environmental assets that are vulnerable to fire and planning appropriate treatment strategies for their protection. DBCA is likely to be a significant land owner and treatment manager in most local governments due to their management responsibilities, activities and programs.

²A BRM Plan reviewed and endorsed by DFES' Office of Bushfire Risk Management as being consistent with the processes, methodology and templates set out in the Guidelines for Preparing a Bushfire Risk Management Plan.

,,,,,,,,,,,,,,,,,,

2.2.4 Department of Planning, Lands and Heritage

The Department of Planning Lands and Heritage (DPLH) manages bushfire risk on land owned by the WA Planning Commission and provides funding to DFES and DBCA for the management of bushfire risk on Unallocated Crown Land (UCL) and Unmanaged Reserves (UMR) across the State of WA. DPLH can assist local governments by providing expert advice to support the identification, assessment and treatment of Aboriginal and European heritage sites that require inclusion in the BRM Plan.

2.2.5 Forest Products Commission

Forest Products Commission (FPC) manage timber plantation and native forest resources owned by the State, and in line with their responsibilities under the *State Hazard Plan – Fire*, they will participate in, and contribute to, locally developed and implemented BRM Plans. FPC can support local governments by providing information about their assets and current risk treatment programs. As a land manager, FPC may plan and implement risk treatments on land they manage to address significant risks identified in the BRM Plan.

2.2.6 Other State and Federal Government Agencies and public utilities

As required, local governments and DFES will engage other state and federal government agencies and public utilities in the development and implementation of BRM Plans. These agencies may support local governments by providing information about their assets and current risk treatment programs, or by planning and managing treatments on their own land to address risks identified in the BRM Plan.

2.2.7 Corporations and Private Land Owners

As required, local government will engage corporations and private land owners in the development and implementation of BRM Plans. These stakeholders may support local governments by providing information about their assets or current risk treatment programs. Where privately owned or managed land presents a significant risk to assets, local governments may engage with corporations and private land owners to assist them to identify appropriate treatment strategies for reducing bushfire hazards on their own land.

The roles and responsibilities of all agencies are summarised in Figure 3.

Local Government Bushfire Risk Management Plan

Local Government

- · Plan custodian & coordinator
- Asset owner
- · Land/treatment manager

DFES

- · Expert advice
- · Training & assistance
- BRMS administration
- Administer MAF grants

OBRM

- BRM guidelines & standards
- BRM plan endorsement
- · Quality assurance

DBCA

- Expert advice
- Asset owner
- · Land/treatment manager

DPLH

- · Land use planning
- · Expert advice
- Asset owner
- · Land/treatment manager

Public Utilities

- Asset owners
- Land/treatment managers

Private Land Owners

- Asset owners
- · Land/treatment managers

FPC

- Asset owner
- · Land/treatment manager

FIGURE 3 - Bushfire Risk Management Plan roles and responsibilities

2.3 Record Keeping and Auditing

Many decisions will be made during the development and implementation of the BRM Plan. It is important that adequate records are maintained to satisfy corporate and legislative record keeping requirements. Effective record keeping will provide evidence of:

- · a systematic approach to risk identification and analysis;
- · the reasoning behind decision making and the outcomes;
- · appropriate consultation with stakeholders and that approval processes have been followed; and
- treatments have been completed and treatment objectives have been achieved.

OBRM may audit local government and other agencies to ensure that BRM Plans are implemented appropriately and treatment objectives are achieved.

2.4 Communication Strategy

Communication and consultation is an important part of effective risk management. Participation from a diverse range of stakeholder groups is important to the BRM planning process. Development of a Communication Strategy ensures consultation is appropriate, timely and effective. The strategy should detail:

- the communication objectives;
- · communications roles and responsibilities;
- · key stakeholders for communication;
- a Communications Log recording which stakeholders were engaged in the development of the BRM Plan and Treatment Schedule; and
- a Communications Plan for the implementation and review of the BRM Plan and Treatment Schedule.

The *Communication Strategy Template* is the preferred format for developing the BRM Plan Communication Strategy.

2.5 Establishing the Context

Establishing the context is the first step in the risk management process and should occur before risk assessments are conducted. The context statements are a description of the environment in which bushfire risk is being managed and the criteria that will influence risk evaluation. This includes the local government's objectives for bushfire risk: a description of the natural, cultural and economic environments and any other factors that will significantly influence bushfire risk or the approach taken to managing it. Information discovered during this stage will inform decision making by providing perspective on the potential consequences of a bushfire event, the likelihood of it occurring, the community's acceptance of bushfire risk and the treatment options available.

Sections 2.7 and 2.8 of these Guidelines describe the factors that should be considered when sourcing information that describes the context of the local government and preparing the BRM Plan context statements. Further guidance is provided in the *BRM Planning Handbook*.

2.5.1 Describing the Local Government and Community Context

Strategic and Corporate Framework

The context statement within the BRM Plan will need to establish the relationship between BRM and the local government's other strategic and corporate planning frameworks. It should address the following:

- how the BRM Plan will help the local government achieve its corporate vision and how it relates to outcomes of the corporate and/or business plan and other high level community strategies and plans;
- the governance and structure of the local government, identifying the area(s) responsible for BRM planning processes;
- how bushfire risk should be integrated across the structure of the local government, including the planning and development, operations, community services and corporate services areas;
- how outcomes from the BRM Plan will link to, or be used to inform, related local government functions, such as the LEMC/BFAC or annual mitigation programs; and
- the current perception of bushfire risk and the general attitude of the community towards bushfire risk and preparedness.

Identifying how the BRM Plan will be embedded into the local government's strategic and corporate frameworks will reinforce a commitment to BRM at the corporate level.

Location, Boundaries and Tenure

The BRM Plan context statement should briefly describe the location and boundaries of the local government and provide a general breakdown of land tenure. This defines the area covered by the BRM Plan and identifies the key land owner groups to be involved in the development and/or implementation of the BRM Plan.

Population and Demographics

The BRM Plan context statement should describe the population and demographics of the local government, including where and how people live, the location of communities and general trends. It should address the following:

- · location and population of the main communities;
- presence and nature of any communities that are particularly vulnerable to bushfire (for example retirees, young families, tourist populations, commuter groups (Fly-In/Fly-Out or daily), absentee land owners, or culturally and linguistically diverse communities) and programs being delivered to support their preparedness and resilience;
- the degree of engagement, preparedness and understanding of bushfire risk in the community; and
- identify any areas experiencing rapid, short term (2-5 years) growth or new development within the rural urban interface.

Economic Activities and Industry

The BRM Plan context statement should describe the significant economic activities and industries within the local government that may require special consideration in BRM planning, including any major agricultural industries and mining operations. Particular attention should be given to documenting industry or economic activities that are of regional or state significance, for example major transport routes into the state. The section should identify any activities that may have an effect on bushfire risk, management or treatment (for example, the impact of smoke on vineyards or during significant tourist seasons). If tourism is a significant activity, detail the general number of annual visitors (if known) and the peak seasons type of activity.

2.5.2 Describing the Environment and Bushfire Context

Topography and Landscape Features

Topography has a significant effect on bushfire behaviour and, therefore, the risk to assets. The BRM Plan context statement should describe the topography of the local government, with specific reference to any landscape features that influence bushfire risk or limit the capacity to implement effective treatments (for example, steep terrain, wetlands, riparian vegetation, peat soils, or areas sensitive to erosion or salinity).

Climate and Bushfire Season

The BRM Plan context statement should describe the climate and the weather patterns that typically occur within the local government. Bushfire behaviour is significantly influenced by climate, so understanding the climatic and seasonal factors that affect bushfire risk will help determine the appropriate treatment strategies to be implemented and any conditions that could reduce their effectiveness. The context statement should include:

- · a description of the length and timing of all seasons;
- · annual temperature and rainfall patterns; and
- prevailing conditions and weather patterns that typically give rise to the worst fire weather conditions throughout the year.

Vegetation and Fuel

The BRM Plan context statement should describe the vegetation categories that commonly occur throughout the local government. Bushfire fuel is that portion of the vegetation that is available to be burnt in a fire. The quantity, arrangement and composition of fuel strongly affects the rate of spread and intensity of a bushfire. This includes the probability of crown fire development and ember attack. The list of vegetation categories applicable to BRM planning is available in the *BRM Planning Handbook*.

,,,,,,,,,,,,,,,,,,

Threatened Species and Ecological Communities

Threatened fauna and flora and Threatened Ecological Communities (TECs) are significant environmental assets that may need to be recorded and assessed in BRMS. The presence of these conservation listed species or communities may influence the timing and suitability of certain bushfire risk treatment activities or require a permit or clearance to be obtained prior to the treatment activity being conducted. Datasets are available within BRMS to assist local governments with this process. However, further advice on the threatened species or TECs that may be present within the local government should be obtained from DBCA. The BRM Plan context statement should include:

- a list of threatened species and TECs protected under both state and federal legislation, including their conservation status;
- the identification of any threatened species or TECs that are fire sensitive or likely to be negatively impacted by fire;
- the identification of any threatened species or TECs that may be adversely impacted by bushfire risk treatment activities;
- the identification of any other locally significant or iconic taxa or communities; and
- reference the processes in place within the local government to ensure planned risk treatment activities comply with relevant legislation and that the appropriate approvals, permits or licences to undertake an activity are obtained.



Bushfire Frequency and Causes of Ignition

Considering the bushfire frequency for the local government and previous fire history can help to identify locations where fires are more likely to start. Analysis of fire report data and statistics can identify common causes of ignition, which potentially could be reduced by improving controls and undertaking targeted education campaigns to reduce their occurrence. The following information should be included in the BRM Plan context statement:

- · fire history and areas of frequent ignition;
- common causes of ignition and any actions that are recommended to reduce these types of ignitions; and
- · historical fires of significance and any outcomes or improvements that resulted from these.

Current Local Government Wide Controls

In most local governments a range of activities (controls) are already being undertaken by local government, state agencies and other stakeholders that contribute to managing bushfire risk. These controls are not activities that are implemented to protect a specific asset, or assets, but are activities that are broadly applied across the local government in relation to managing bushfire risk. The BRM Plan context statement should identify any local government wide controls currently in place. The effectiveness of the control measures and their ability to manage risk at an acceptable level will be considered during risk evaluation. If controls are not able to adequately manage a risk, then asset -specific treatments will need to be implemented to further reduce the risk to the asset.

The following programs and activities are examples of current local government wide controls that should be considered when developing the BRM Plan context statement and Local Government Wide Controls Table:

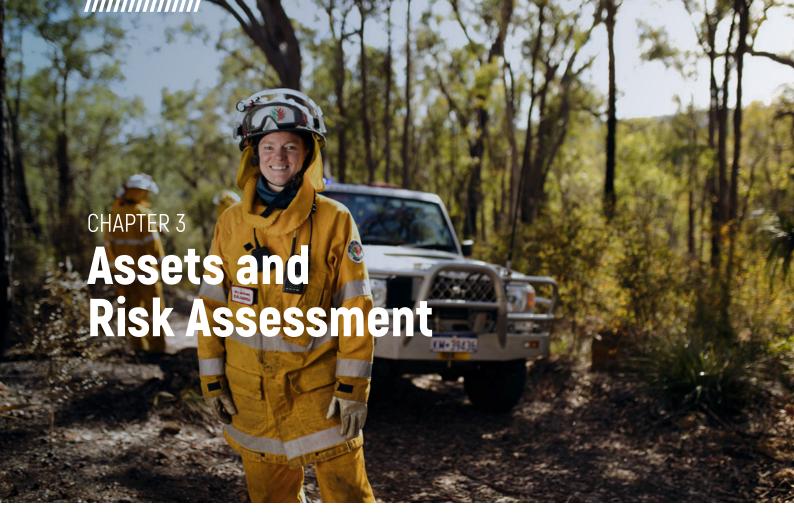
- the use of *Bush Fires Act 1954* section 33 Fire Management Notices, including applicable fuel management requirements, firebreak standards and annual enforcement programs;
- the application of *State Planning Policy 3.7 Planning for Bushfire Prone Areas* to manage development in areas identified on the Map of Bushfire Prone Areas. Local planning schemes, development policies and land subdivision and building standards applied within the local government;
- the declaration and management of burning restrictions, such as Total Fire Bans, Restricted Burning Times, Prohibited Burning Times and Harvest and Vehicle Movement Bans to reduce ignition risk;

- the distribution and capability of response resources, including career and volunteer fire brigades;
- community engagement activities or programs that support community awareness,
 preparedness and resilience prior to bushfire events; and
- any other broadly applied practices or programs undertaken by local government or state agencies that contribute to managing bushfire risk, including controls under state government policies, agreements and memorandums. For example, state-wide arson programs or vegetation management programs.

A summary of the identified controls should be appended to the BRM Plan using the *Local Government Wide Controls Table Template.*

2.6 Planning Areas

Planning areas are a subdivision of the local government. They are based on local government ward boundaries and are used to define an area at an appropriate mapping scale. Where a local government does not have wards, then there is only one planning area for the local government. Planning area boundaries are available to view within BRMS.



3.1 Asset Identification

An asset is anything valued by the community that is vulnerable, or requires protection from bushfire. There are four categories of assets considered in the BRM Plan: human settlement, economic, environmental and cultural assets (see Tables 1-4).

Only those assets at risk from bushfire need to be assessed and included in the BRM Plan. As a guiding principle, assets located within 400 metres of classified vegetation are deemed to be at sufficient risk from bushfire to warrant inclusion in the BRM Plan. Assets located beyond 400 metres may still be included, but will generally be assigned a lower risk rating that those located nearer to vegetation.

The decision to include an asset in the BRM Plan will be assessed case by case. Where it is unclear, the decision to include an asset should be determined in consultation with the asset owner or managing agency. Specific business rules for categorising assets are provided in the *BRM Planning Handbook*. Further advice can also be sought from DFES' Bushfire Risk Management Branch.

To include an asset in the BRM Plan the asset must be recorded in BRMS using the processes outlined in the BRM Planning Handbook and BRMS User Guide.

Assets may fall into more than one category. Where this is the case, multiple risk assessments can be completed against the asset, with the assessment resulting in the highest risk rating being the rating assigned to the asset.

Assets should be grouped for assessment, rather than assessed on an individual basis. To be grouped, assets must be of the same asset category and subcategory, and have similar risk characteristics for risk assessment (for example, vegetation, slope, separation distance and vulnerability inputs).

Table 1 - Human Settlement Asset Categories and Subcategories

Asset Category Human Settlement Assets Residential Residential areas, including dwellings in rural areas and the rural-urban interface. In urban areas, a street, or group of streets, along the urban interface may be classified as an asset. Places of temporary occupation Commercial and industrial areas, mining sites or camps and other locations where people may work or gather (for example, mining camps, industrial complexes, showgrounds, sports facilities and recreation centres).

Locations and facilities where occupants may be especially vulnerable to bushfire for one or more of the following reasons:

- · Occupants may have limited knowledge about the impact of bushfires;
- · Occupants may have a reduced capacity to evaluate risk and respond adequately to a bushfire event;
- Occupants may be more vulnerable to stress and anxiety arising from a bushfire event or the effects of smoke:
- Special risk and critical facilities
- $\boldsymbol{\cdot}$ There may be significant communication barriers with occupants; or
- Relocation and/or management of occupants may present unique challenges or difficulties, such as transportation, or providing alternative accommodation, healthcare or food supplies.

(for example, schools, nursing homes, hospitals and patient care facilities, specialised care facilities, childcare facilities, tourist accommodation (incl. caravan parks), prisons and detention centres, retirement villages, shared home or supported accommodation and independent living facilities)

Facilities that are critical to the community during a bushfire emergency.

(for example, police, fire and emergency services facilities, designated evacuation centres, incident control centres, local government administration and depot facilities)

Table 2 - Economic Asset Categories and Subcategories

Asset Category	Asset Subcategories
Economic Assets	
Agricultural	Areas under production, such as pasture, livestock, crops, viticulture, horticulture and associated infrastructure. Must be grouped for assessment and should not be assessed at the level of individual farms or properties.
Commercial and Industrial	Major industry, waste treatment plants, mines (economic interest), mills, processing and manufacturing facilities and cottage industry.
Critical infrastructure	Power lines and substations, water pumping stations, tanks/bores and pipelines, gas pipelines, telecommunications infrastructure, railways, bridges (timber/timber-hybrid), port facilities and waste water treatments plants.
Tourist and recreational	Tourist attractions, day-use areas and recreational sites that generate significant tourism and/or employment within the local area. These assets are different to tourist accommodation described as a Human Settlement Asset (see above).
Commercial forests and plantations	Plantations and production native forests.
Drinking water catchments	Land and infrastructure associated with drinking water catchments.

Table 3 - Environmental Asset Categories and Subcategories

Asset Category	Asset Subcategories
Environmental Assets	
Protected	 Flora, fauna and ecological communities that are listed as a: Critically Endangered, Endangered or Vulnerable species under the <i>Environmental Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act 1999)</i> (including associated critical habitat); Critically Endangered, Endangered or Vulnerable species under the <i>Biodiversity Conservation Act 2016;</i> Critically Endangered, Endangered or Vulnerable ecological community under the <i>EPBC Act 1999</i> (Cth); Critically Endangered, Endangered or Vulnerable Threatened Ecological Community (TEC) endorsed by the Minister for Environment (WA); Fauna protected under international conventions; and Ramsar wetlands of international importance.
Priority	Flora, fauna and ecological communities that are a: Priority species listed on the Priority Flora or Priority Fauna Lists held by DBCA (Priority 1-5). Priority Ecological Community (PEC) (Priority 1-5); and Wetlands of national or state importance.
Locally Important	Species, populations, ecological communities or habitats that the local community or independent scientific experts consider important for the area and for which there is some scientific evidence that protection would be beneficial. Wetlands of local importance. Sites being used for scientific research.

Note: Environmental assets only need to be included and assessed in the BRM Plan if the time since fire is less than the minimum fire threshold for the species or community (i.e. the shortest period of time that fire should be excluded from an asset to avoid any localised decline or loss of species from excessive burning). Advice relating to fire interval thresholds for particular species, populations, communities or habitats can be sought from DBCA.

Table 4 - Cultural Asset Categories and Subcategories

Asset Category	Asset Subcategories
Cultural Assets	
Aboriginal heritage	Places of indigenous significance identified by DPLH or the local community. DPLH has established the Aboriginal Heritage Inquiry System (AHIS) as per the Aboriginal Heritage Act 1972. The register holds the details of all known Aboriginal cultural heritage places and objects within Western Australia. Additional sites may become known through discussions with local Aboriginal communities or other people and can be included in the BRM Plan and referred to DPLH for possible inclusion in the AHIS.
European heritage	Non-indigenous heritage assets afforded legislative protection through identification by the National Trust, State Heritage List or Local Planning Scheme Heritage List. Non-indigenous heritage assets are generally those places or items of significant cultural value arising from the early occupation of Western Australia by European or non-indigenous settlers and pioneers.
Local heritage	Assets identified in a Municipal Heritage Inventory or identified by the local community as being significant to local heritage.
Other	In some areas, the local community values other cultural assets. These may include community halls, churches, clubs and recreational facilities.

3.2 The Bushfire Risk Assessment Process

Risk assessment uses a combination of consequence and likelihood to determine the level of bushfire risk. Once an asset has been identified, mapped and categorised, a risk assessment can be conducted to determine an asset's exposure to bushfire risk. The level of exposure to bushfire risk is called the risk rating.

BRMS will automatically calculate the risk rating, based on the consequence and likelihood inputs entered for an asset. Table 5 demonstrates how likelihood and consequence combine to determine the risk rating. There are five risk ratings: **Low, Medium, High, Very High** and **Extreme.**

Table 5 - Determining the Risk Rating

	Consequence				
_		Minor	Moderate	Major	Catastrophic
Likelihood	Almost Certain	High	Very High	Extreme	Extreme
Likel	Likely	Medium	High	Very High	Extreme
	Possible	Low	Medium	High	Very High
	Unlikely	Low	Low	Medium	High

3.3 Assessing Consequence

Consequence is described as the outcome or impact of a bushfire event on the asset. The approach used to determine the consequence rating is different for each asset category: Human Settlement; Economic; Environmental; and Cultural. This is due to the different aspects, or values at risk, and the type of information that needs to be considered when undertaking the risk assessment. There are four possible consequence ratings: Minor, Moderate, Major and Catastrophic.

3.3.1 Consequence Assessment - Human Settlement Assets

When considering human settlement assets, the methodology used to determine the consequence rating will be based on the following (Table 6):

Hazard

The hazard posed by the classified vegetation; and

· Vulnerability

The vulnerability of the asset.

3.3.1 (a) Calculating the Bushfire Hazard

The bushfire hazard is calculated in BRMS using relevant information about the classified vegetation, fuel age, canopy cover, separation distance, slope under the vegetation and slope from the asset to vegetation.

Table 6 - Consequence Ratings for Human Settlement Assets

	Bushfire Hazard					
oillity		Low	Medium	High	Very High	
Vulnerability	High Vulnerability	Moderate	Major	Catastrophic	Catastrophic	
Vul	Moderate Vulnerability	Minor	Moderate	Major	Catastrophic	
	Low vulnerability	Minor	Minor	Moderate	Major	

Where the vegetation being assessed in relation to an asset is not excluded as low hazard (see section 3.3.1(b)), the following information is used to calculate the bushfire hazard:

· Vegetation Class

The hazard vegetation is to be classified according to the vegetation categories described in the *BRM Planning Handbook*. The vegetation that poses the greatest hazard to the asset should be assessed. This is not necessarily the vegetation closest to the asset.

· Fuel Age and Canopy Cover

The fuel age (in years) of the vegetation assessed and its estimated percentage canopy cover.

Separation Distance

The separation distance is defined as the distance between the asset and the vegetation.

· Slope under the Vegetation

The effective slope in the land under the hazard vegetation.

Slope from Asset to Vegetation

The slope of the land between the asset and the hazard vegetation.

3.3.1 (b) Low Hazard Exclusion

If the classified vegetation being assessed in relation to an asset meets one or more of the following criteria³, the bushfire hazard will automatically be rated as **LOW**:

More than 100 metres from the asset

Vegetation of any type that is more than 100 metres from the asset.

· Single area less than 1 hectare

Single areas of vegetation less than 1 hectare in area and not within 100 metres of other areas of vegetation being classified.

Multiple areas less than 0.25 hectares each

Multiple areas of vegetation less than 0.25 hectares in area and not within 20 metres of the asset, or each other.

Strips of vegetation with a width less than 20 metres

Strips of vegetation less than 20 metres in width regardless of the length and not within 20 metres of the asset or each other, or other areas of vegetation being classified.

Non-vegetated areas

Non-vegetated areas, including waterways, roads, footpaths, buildings and rocky outcrops.

Low hazard vegetation

Low threat vegetation, including managed grassland⁴, maintained lawns, golf courses, maintained public reserves and parklands, botanical gardens, vineyards, orchards, cultivated ornamental gardens, commercial nurseries, nature strips and wind breaks.

3.3.1 (c) Rating Vulnerability – Human Settlement Assets

The vulnerability of a human settlement asset describes the susceptibility of the asset and its occupants to the adverse effects of a bushfire. There are three categories of vulnerability for human settlement assets: **High, Moderate** and **Low.**

The Human Settlement Vulnerability Tool in the BRM Planning Handbook is used to select the category that best describes the estimated vulnerability of the asset.

³ Source: AS 3959–2009, reproduced with permission from SAI Global under licence number 1510-c081.

⁴ Managed in a minimal fuel condition, which means there is insufficient fuel available to significantly increase the severity of bushfire attack, recognised as short cropped grass to a height of 10 cm.

3.3.2 Consequence Assessment - Economic Assets

When considering economic assets, the methodology used to determine the consequence rating will be based on the following (Table 7):

Hazard

The hazard posed by the classified vegetation; and

· Vulnerability

The vulnerability of the asset, based on the level of impact and susceptibility of the asset to the adverse effects of bushfire.

Table 7 - Consequence Ratings for Economic Assets

	Bushfire Hazard					
oility		Low	Medium	High	Very High	
Vulnerability	High Vulnerability	Moderate	Major	Major	Catastrophic	
Vul	Moderate Vulnerability	Minor	Moderate	Moderate	Major	
	Low vulnerability	Minor	Minor	Minor	Moderate	

3.3.2 (a) Calculating the Bushfire Hazard

The bushfire hazard is calculated in BRMS using relevant information about the classified vegetation, slope and separation distance between the vegetation and the asset. See section 3.3.1(a) for further information on calculating the bushfire hazard.

3.3.2 (b) Rating Vulnerability – Economic Assets

The vulnerability of an economic asset is determined by assessing susceptibility of the asset to bushfire (Table 8). There are three categories of vulnerability for economic assets: **High, Moderate** and **Low.**

Table 8 - Vulnerability Assessment for Economic Assets

ity	Level of Impact					
Susceptibility		Local	Regional	State or Critical		
Susce	High Susceptibility	Moderate	High	High		
Asset 9	Moderate Susceptibility	Low	Moderate	High		
Ä	Low Susceptibility	Low	Low	Moderate		

3.3.2 (c) Level of Impact

The level of impact describes the relative importance of the asset and the potential impact its loss, disruption or damage from bushfire, may have on the wider economy. There are three levels of impact: **Local, Regional** and **State or Critical.**

The Level of Impact Decision Tool in the BRM Planning Handbook is used to select the category that best describes the level of impact for the asset.

3.3.2 (d) Asset Susceptibility

The asset susceptibility describes the ability of an asset to withstand the adverse effects of a bushfire. There are three levels of asset susceptibility: **Low, Moderate** and **High.**

The Asset Susceptibility Table in the BRM Planning Handbook is used to select the category which best describes the susceptibility of the asset to a bushfire impact.

3.3.3 Consequence Assessment – Environmental Assets

When considering environmental assets, the methodology used to determine the consequence rating will be based on the following (Table 9):

Vulnerabilty

The vulnerability of the asset, based on its conservation status and geographic extent; and

Potential Impact of Fire

The potential impact of a bushfire event or fire regime on the asset.

Table 9 - Consequence Ratings for Environmental Assets

Fire	Vulnerability				
act of		Low	Moderate	High	Very High
Impact	Fire Sensitive – Exclude Fire	Moderate	Major	Major	Catastrophic
ential	Fire Influenced - Restrict Fire	Minor	Moderate	Moderate	Major
Potel	Fire Dependent - No Conditions	Minor	Minor	Minor	Moderate

3.3.3 (a) Rating Vulnerability - Environmental Assets

The vulnerability of an environmental asset to an impact from bushfire is based on its conservation status and geographic extent (Table 10). There are four categories of vulnerability for environmental assets: **Very High, High, Moderate** and **Low.**

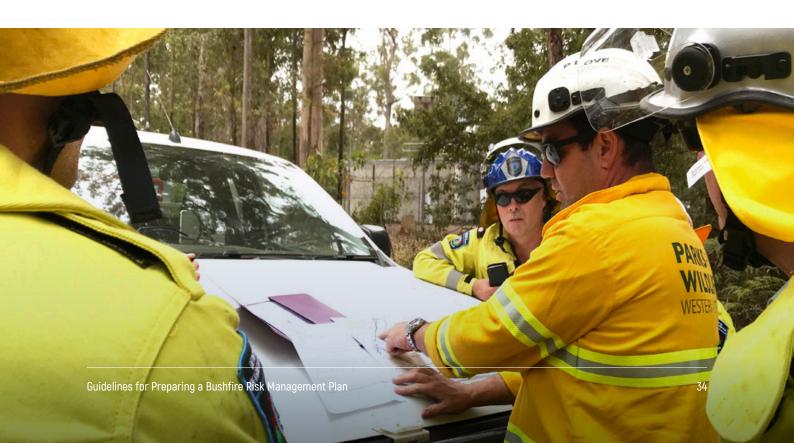


Table 10 - Vulnerability Ratings for Environmental Assets

Ħ			Conservation Sta	tus
Extent		Local Conservation	Priority	Threatened
Geographic	Highly Restricted	Moderate	High	Very High
eogr	Restricted	Low	Moderate	High
9	Widespread	Low	Low	Moderate

3.3.3 (b) Potential Impact of Fire

The potential impact of fire describes the long term effect a fire regime may have on a vegetation type and the characteristics associated with each category. There are three categories for the potential impact of fire: **Fire Sensitive, Fire Influenced** and **Fire Dependent.**

The *Potential Impact of Fire Table* in the *BRM Planning Handbook* is used to select the category that best describes the potential impact of fire on the asset.

3.3.3 (c) Conservation Status

The conservation status describes the relative importance of an environmental asset for protection. There are three categories for conservation status: **Threatened**, **Priority** and **Local Conservation**.

The *Conservation Status Table* in the *BRM Planning Handbook* is used to select the category that best describes the conservation status of the asset.

3.3.3 (d) Geographic Extent

The geographic extent describes the distribution of an environmental asset. Unique or rare environmental assets will have a highly restricted geographic extent and therefore warrant a higher level of protection than species or communities occurring more frequently. There are three categories of geographic extent: **Highly Restricted**, **Restricted** and **Widespread**.

The *Geographic Extent Table* in the *BRM Planning Handbook* is used to select the category that best describes the geographic extent of the asset.

3.3.4 Consequence Assessment - Cultural Assets

When considering cultural assets, the methodology used to determine the consequence rating will be based on the following (Table 11):

Hazard

The hazard posed by the classified vegetation; and

Vulnerability

The vulnerability of the asset.

Table 11 - Consequence Ratings for Cultural Assets

Vulnerability		Hazard			
		Low	Medium	High	Very High
	High Vulnerability	Minor	Moderate	Major	Catastrophic
	Moderate Vulnerability	Minor	Moderate	Moderate	Major
	Low Vulnerability	Minor	Minor	Moderate	Moderate

3.3.4 (a) Calculating the Bushfire Hazard

The bushfire hazard is calculated in BRMS using relevant information about the classified vegetation, slope and separation distance between the vegetation and the asset. See section 3.3.1(a) for further information on calculating the bushfire hazard.

3.3.4 (b) Rating Vulnerability - Cultural Assets

The vulnerability of a cultural asset describes the susceptibility of the asset to the adverse effects of a bushfire. There are three categories of vulnerability for cultural assets: **Low, Moderate** and **High.**

The *Cultural Vulnerability Table* in the *BRM Planning Handbook* is used to select the category that best describes the estimated vulnerability of the asset.

3.4 Assessing Likelihood

Likelihood is described as the potential for a bushfire to ignite, spread and impact on an asset. The approach used to determine the likelihood rating is the same for each asset category: Human Settlement, Economic, Environmental and Cultural. There are four possible likelihood ratings: **Unlikely, Possible, Likely** and **Almost Certain.**

To determine the likelihood rating, the following is considered for the asset being assessed:

Fuel Age (in years)

The fuel age (in years) of the classified vegetation identified as the hazard.

Separation Distance

The distance between the asset and the classified vegetation identified as the hazard.

Table 12 - Likelihood Ratings for Bushfire Risk

Fuel Age (in years) (*excluding) grasslands)	Separation Distance			
		>100 m-400 m	>30 m-100 m	0-30 m
	0-3 years	Unlikely	Unlikely	Possible
	>3-6 years	Unlikely	Possible	Likely
	>6 years	Possible	Likely	Almost Certain

^{*}Unmanaged grasslands are assessed in the >3-6 years fuel age category because of their relatively low maximum fuel weight and limited capacity to generate embers.



4.1 Purpose of Risk Evaluation

The purpose of evaluating risk is to:

- · confirm that the risk ratings for each asset are appropriate;
- · consider risk acceptability and identify which assets require treatment; and
- · identify treatment priorities.

4.2 Risk Acceptability

It is not possible, or practical to treat all bushfire risks identified in the BRM planning process. In some circumstances risks may be acceptable without the need for specific treatment. For example, assets with a Low to Moderate risk rating are likely to be adequately managed through routine local government wide controls, so committing resources to further reduce the risk may not be justifiable.

When considering risk acceptability, keep in mind the availability of resources, capacity to undertake treatments, budget constraints and the practicality of implementation. These factors will heavily influence the ability of land owners and managers to treat risk.

Ultimately, it will be at the discretion of the local government, together with DFES and the relevant land owner, to determine the most appropriate course of action for a particular asset. However, for each risk rating the BRM Plan should document the following:

Criteria for Acceptance

The criteria to be used when determining the acceptability of a risk; and

Courses of Action

General courses of action to be taken for each of the five possible risk ratings: Low; Moderate; High; Very High and Extreme.

Local government and land owners are strongly encouraged to implement asset-specific treatment strategies for risks rated High, Very High and Extreme.

4.3 Treatment Priority

No organisation has unlimited resources to manage risks, therefore it is necessary to prioritise unacceptable risks for treatment. Risk acceptability indicates which assets need to be treated, based on the risk rating received during risk assessment. The treatment priority provides guidance on the order that assets (or risks) should be prioritised for treatment, including how assets should be prioritised within a particular risk rating. For example, Table 13 shows that there are three combinations of consequence and likelihood that will result in an asset receiving an Extreme risk rating. However, the alpha-numeric treatment priority (e.g. 1A, 1B, 1C) assigned to each combination is different. Assets with a higher treatment priority (e.g. 1A) should be considered for treatment before addressing assets with a lower treatment priority (e.g. 1C, 2B etc.)

The treatment priority will be automatically assigned by BRMS, based on the asset's risk assessment. Table 13 shows how consequence and likelihood combine to give the risk rating and subsequent treatment priority for an asset.

Table 13 - Treatment Priorities

	Consequence				
_		Minor	Moderate	Major	Catastrophic
Likelihood	Almost Certain	3D (High)	2C (Very High)	1C (Extreme)	1A (Extreme)
Likel	Likely	4C (Medium)	3A (High)	2A (Very High)	1B (Extreme)
	Possible	5A (Low)	4A (Medium)	3B (High)	2B (Very High)
	Unlikely	5C (Low)	5B (Low)	4B (Medium)	3C (High)

Local governments and other land owners and managers are encouraged to allocate resources to treatments that address higher priority risks and provide the best return on investment. This applies to the allocation of current resources and when seeking funding for additional resources.

4.4 Risk Treatment

The purpose of risk treatment is to reduce the potential impact of bushfire on the community, economy and environment. This is achieved by implementing treatments that modify the characteristics of the community or the environment.

Assets are likely to require risk treatment when:

- · the risk rating associated with the asset is at an unacceptable level;
- local government wide controls identified earlier in the BRM process are not sufficient to adequately manage the risk at an acceptable level; and/or
- existing treatment programs or recent mitigation activities need to be maintained into the future to ensure the risk rating remains at an acceptable level.

4.4.1 Asset-Specific Treatment Strategies

Asset-specific treatments are implemented to protect an individual asset or group of assets, identified and assessed in the BRM Plan as having an unacceptable level of risk from bushfire. Asset-specific treatments are recorded and managed within BRMS. There are five asset-specific treatment strategies:

Fuel management

Treatment reduces or modifies the bushfire fuel through manual, chemical or planned burning methods;

· Ignition management

Treatment aims to reduce potential sources of ignition in the landscape;

· Preparedness

Treatments aim to enhance the community's capacity to fight to a bushfire, for example by improving vehicle access, water supply or availability of fire fighting appliances;

Planning

Treatments focus on developing plans to improve the ability of firefighters and the community to prepare, respond and recover from bushfire; and

Community Engagement

Treatments seek to build relationships, raise awareness and change the behaviour of people exposed to bushfire risk.

The treatment strategy (or combination of treatment strategies) selected will depend on a range of factors and not all treatment strategies will be suitable in all circumstances.

Where an asset-specific treatment is not required or not possible, only local government wide controls will be used to manage the risk. This should also be recorded in BRMS to ensure risks are periodically scheduled for review.

4.4.2 Selecting the Treatment Strategy

Selecting the most appropriate treatment strategy or combination of treatment strategies for an asset involves balancing the costs of implementing treatments against the benefits derived. In general, the cost of managing the risk needs to be proportionate to the benefits obtained.

Appropriate strategies will include a mix of treatments that are undertaken in both close proximity to the asset and in the wider landscape. Further advice on selecting appropriate treatment strategies is provided in the *BRM Planning Handbook*.

The process for recording treatments in BRMS is detailed in the *BRM Planning Handbook* and *BRMS User Guide*.



4.4.3 Development of the Treatment Schedule

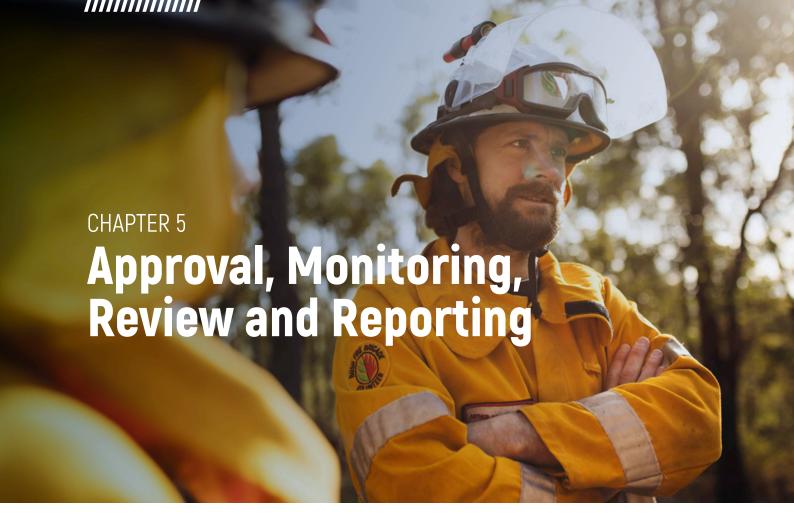
The Treatment Schedule will evolve and develop throughout the life of the BRM Plan. In the first instance, efforts should focus on developing a program of works that identifies the treatment activities to be undertaken within the first year of implementation of the BRM Plan. This initial Treatment Schedule (first year) is to be provided with the draft BRM Plan when it is submitted to OBRM for endorsement.

Responsibility for Treatment

Land owners and occupiers are ultimately responsible for treatments implemented on their own land. This includes any costs associated with the treatment and obtaining the relevant approvals, permits or licences to undertake an activity. Where agreed, another agency may manage a treatment on behalf of a land owner. However, the onus is still on the land owner to ensure treatments identified in the BRM Plan's Treatment Schedule are completed.

The BRM planning process is founded on the notion that...

"Those that own or occupy the land, own the risk."



5.1 The Approval Process

Once developed, BRM plans are to be endorsed by OBRM prior to approval by the local government council. Council approval signifies the local government's acknowledgement of the assets that have been identified within their local community and the risk ratings and treatment priorities assigned. Approval of the plan is a commitment by local government to work with land owners and managers to address unacceptable risk within their community. It is not an acceptance of responsibility or commitment to treat risks occurring on land that is not owned or managed by the local government.

DFES' BRM Branch undertake a quality assurance review of all draft plans, prior to submission to OBRM. This review ensures draft BRM Plans meet the minimum standard for endorsement and streamlines review processes.

OBRM's review of the draft BRM Plan will consider its consistency with the Guidelines. Figure 4 provides an overview of the BRM Plan approval process. Appendix A provides a checklist for submitting the draft BRM Plan to OBRM for endorsement, along with the key criteria that will be assessed. Further information regarding the approval process is also available in the *BRM Planning Handbook*.



FIGURE 4 - The Bushfire Risk Management Plan Approval Process

5.2 Dispute Resolution

All attempts should be made to negotiate an acceptable solution to an issue at the local or lowest possible level. If this course of action is unsuccessful, then the matter may be referred to the regional or State level for resolution. All attempts should be made to resolve issues at the earliest opportunity.

5.3 Publishing the Bushfire Risk Management Plan

Local governments are encouraged to publish the BRM Plan on their website. Promotion of the BRM Plan to the wider community may raise the level of risk awareness and help private land owners understand how they can contribute to reducing bushfire risk on their own land.

5.4 Annual Reporting

Local governments are encouraged to report regularly (at least annually) to council, the LEMC and/or BFAC on progress made towards implementation of the BRM Plan and Treatment Schedule. Upon request, local governments will be asked to contribute information relating to their bushfire risk treatment activities to OBRM's annual *Fuel Management Activity Report*.

5.5 Reviewing the Bushfire Risk Management Plan

The BRM Plan is to undergo a comprehensive review within five years against the Guidelines current at the time of commencing the review.

5.5.1 Managing Treatment Data in BRMS

The *BRM Planning Handbook* provides the process for recording and managing treatment data within BRMS. To ensure the currency of information entered into BRMS is maintained, data is to be reviewed and updated where:

- · a new treatment is identified;
- the details of an existing treatment change, including reassigning or rescheduling the treatment;
- · a treatment has been completed;
- · a treatment evaluation has been completed;
- · the post-treatment risk assessment is completed; or
- the treatment is no longer required due to an unplanned event, such as a bushfire.

Glossary

Asset

A term used to describe anything of value that may be adversely impacted by bushfire. This may include residential houses, infrastructure, commercial, agriculture, industry, environmental, cultural and heritage sites.

Asset Category

There are four categories that classify the type of asset – Human Settlement, Economic, Environmental and Cultural.

Asset Owner

The owner, occupier or custodian of the asset itself. Note: this may differ from the owner of the land the asset is located on – for example, a communication tower located on leased land or private property.

Asset Register

A component within the Bushfire Risk Management System (BRMS) used to record the details of assets identified in the Bushfire Risk Management (BRM) Plan.

Asset Risk Register

A report produced within BRMS that details the consequence, likelihood, risk rating and treatment priority for each asset identified in the BRM Plan.

Bushfire

Unplanned vegetation fire. A generic term which includes grass fires, forest fires and scrub fires both with and without a suppression objective.

Bushfire Attack

Mechanisms by which a bushfire may ignite or cause damage to an asset, such as ember attack, radiant heat or direct flame contact.

Bushfire Hazard

The hazard posed by the classified vegetation, based on the vegetation category, slope and separation distance.

Bushfire Risk

The chance of a bushfire igniting, spreading and causing damage to the community or the assets they value.

Bushfire Risk Management

A systematic process to coordinate, direct and control activities relating to bushfire risk; with the aim of limiting the adverse effects of bushfire on the community.

Classified Vegetation

Vegetation that has been classified as a bushfire hazard, i.e. any vegetation that does not meet the criteria for Low Hazard Exclusion.

Consequence

The outcome or impact of a bushfire event on the asset.

Geographic Information System (GIS)

A data base technology, linking any aspect of land related information to its precise geographic location.

Land Owner

The owner of the land, as listed on the Certificate of Title; or leaser under a registered lease agreement; or other entity that has a vested responsibility to manage the land.

Likelihood

The chance of something occurring. In this instance, it is the potential for a bushfire to ignite, spread and impact on an asset.

Map

The mapping component of BRMS. Assets, treatments and other associated information is spatially identified, displayed and recorded within the Map.

Planning Area

A geographic area, generally based on a local government ward boundary, which is used to provide a suitable scale for risk assessment, stakeholder engagement and reporting.

Priority

See Treatment Priority.

Risk Acceptability/Acceptance

The informed decision to accept a risk, based on the knowledge gained during the risk assessment process.

Risk Analysis

The application of consequence and likelihood to an event in order to determine the level of risk.

Risk Assessment

The systematic process of identifying, analysing and evaluating risk.

Risk Evaluation

The process of comparing the outcomes of risk analysis to the risk acceptability criteria in order to determine whether a risk is acceptable.

Risk Identification

The process of recognising, identifying and describing risks.

Risk Register

A component within BRMS used to record, review and monitor risk assessments and treatments associated with assets identified in the BRM planning process.

Risk Treatment

A process to select and implement appropriate measures undertaken to modify risk.

Rural

Any area where residences and other developments are scattered and intermingled with forest, range, or farm land and native vegetation or cultivated crops.

Rural Urban Interface

The line or area where structures and other human development adjoin or overlap with undeveloped bushland.

Slope

The angle of the ground's surface measured from the horizontal.

Tenure Blind

An approach where multiple land parcels are consider as a whole, regardless of individual ownership or management arrangements.

Treatment

An activity undertaken in order to modify risk, such as a planned burn.

Treatment Priority

The order, importance or urgency for allocation of funding, resources and opportunity to treatments associated with a particular asset. The treatment priority is based on an asset's risk rating.

Treatment Schedule

A report produced within BRMS that details the treatment priority of each asset identified in the BRM Plan and the treatments scheduled.

Treatment Strategy

The broad approach that will be used to modify risk, such as fuel management.

Vulnerability

The susceptibility of an asset to the impacts of bushfire.

Common Abbreviations

AFAC	Australasian Fire and Emergency Services Authorities Council
BFAC	Bush Fire Advisory Committee
BRM	Bushfire Risk Management
BRM Branch	Bushfire Risk Management Branch (DFES)
BRM Plan	Bushfire Risk Management Plan
BRMS	Bushfire Risk Management System
DBCA	Department of Biodiversity, Conservation and Attractions
DFES	Department of Fire and Emergency Services
DPLH	Department of Planning, Lands and Heritage
EPBC Act	Environmental Protection and Biodiversity Conservation Act
FPC	Forest Products Commission
GIS	Geographical Information System
LEMC	Local Emergency Management Committee
MAF	Mitigation Activity Fund
OBRM	Office of Bushfire Risk Management (DFES)
PEC	Priority Ecological Community
PWS	Parks and Wildlife Service (DBCA)
RFD	Rural Fire Division (DFES)
SEMC	State Emergency Management Committee
TEC	Threatened Ecological Community
UCL	Unallocated Crown Land
UMR	Unmanaged Reserve
WA	Western Australia
WAPC	Western Australian Planning Commission

Appendix A - Assessment Criteria

Assessment Criteria	How the Criteria will be Assessed
Plan Preparation - General	
Does the plan follow the format of the Office of Bushfire Risk Management (OBRM) Bushfire Risk Management Plan (BRM Plan) Template and have all sections been addressed?	Review BRM Plan OBRM template has been used (preferred) All sections have been addressed Section numbering and order consistent with template
Have all required Appendices been attached to the BRM Plan?	Check Appendices Communication Strategy Asset Risk Register (optional) Treatment Schedule Local Government Wide Controls Table
Have the roles and responsibilities of the various agencies/stakeholders been described?	Review Roles and Responsibilities table Roles and responsibilities section completed
Has an appropriate Communication Strategy been developed?	Review Communication Strategy OBRM template has been used (preferred) All sections have been addressed Scope and outcomes have been set Range of stakeholders identified Communications Log from the development of the BRM Plan complete Key messages developed Communications Plan developed

Establishing the Context			
Has the Local Government and Community context for the risk assessment been described?	Review the Local Government and Community context Has a link to the strategic and corporate framework been established? Has the Local Government's location and boundaries been described? Has a link to the land tenure, land owners and bushfire risk management been described? Has the population and demographics of the community been well described? Has an overview of the economic and industrial activities been provided? Has the information provided been appropriately sourced and referenced?		
Has the Environment and Bushfire context for the risk assessment been described?	Review the Environment and Bushfire context Has the topography and landscape in the context of bushfire risk been described Has the climate and bushfire season been described? Have the vegetation complexes/types been linked to bushfire risk and have any Threatened Species or Communities been listed? Has a bushfire history been provided including frequency and causes of ignition Has the information provided been appropriately sourced and referenced?		
Asset Identification and Assessment			
Have assets been identified in all planning areas?	Review Asset Risk Register Assets identified in all planning areas within the Bushfire Risk Management System (BRMS) Have assets been identified across all asset categories? Have assets been grouped appropriately in BRMS? Have assets been named appropriately in BRMS?		
Have stakeholders been engaged in the identification of assets?	Review BRM Plan and Communications Strategy Evidence of DBCA consultation with the identification and assessment of environmental assets. Evidence of consultation with other stakeholders including relevant State Government agencies, business areas across the local government, industry and community.		
Have risk assessments been completed and recorded for all assets identified?	Review Asset Risk Register Risk assessment recorded for each asset		

Risk Evaluation	
Is the level of risk acceptability documented in the BRM Plan?	Review BRM Plan Criteria for acceptance of risk and course of action table complete
Risk Treatment	
Have the Local Government Wide Controls been identified, reviewed and documented in the BRM Plan?	Review BRM Plan Current Local Government Wide Controls listed in BRM Plan Local Government Wide Controls have been reviewed and any potential gaps or opportunities have been identified? Local Government Wide Control Table identifies actions, timeframes and responsibilities
Has a Treatment Schedule been provided as an appendix at the time of BRM Plan submission?	Review Treatment Schedule Does the Treatment Schedule include any treatments known at time of submission? For the treatment strategies identified, are they appropriate to the level of risk identified? Is there evidence in that land owners and treatment managers were engaged in the development of the Treatment Schedule?
Monitoring and Review	
Has a monitoring and review process been described in the BRM Plan?	Review Monitoring and Review Have appropriate processes for monitoring and review of the BRM Plan been documented? Have the responsibilities for the monitoring and review of the BRM Plan been detailed?
Draft BRM Plan Submission	
Has the BRM Plan been 'locked' in BRMS?	Review locked date Locked date is recorded
Has the self-assessment checklist been completed and attached to the submission?	Review Checklist Checklist attached Contact person nominated
Has a cover letter from the local government CEO (or delegate) been attached to the submission?	Review cover letter Cover letter attached

Appendix B - Self Assessment Checklist

Draft Bushfire Risk Management Plan (BRM Plan) submission

To be completed and attached to the draft BRM Plan submission.

Cover letter from the local government CEO or delegate submitting the draft BRM Plan to the Director of Office of Bushfire Risk Management (OBRM) for review attached
All sections of the BRM Plan Template have been addressed
Communication Strategy attached
Context statements are complete
Local Government Wide Controls are identified and recorded
All assets at risk of bushfire have been identified and assessed
Evidence of consultation with the Department of Biodiversity, Conservation and Attractions regarding environmental assets included (if relevant)
Asset Risk Register attached (optional)
Initial Treatment Schedule attached
BRM Plan has been 'locked' in BRMS

The contact person in regards to this submission is:

Name:		
Position:		
Organisation:		
Postal address:		
Contact Number:		
Email:		

Submissions to be forwarded to:

Office of Bushfire Risk Management, Department of Fire and Emergency Services

Postal Address: PO Box P1174, PERTH WA 6844

Email: obrm@dfes.wa.gov.au



