Shire of Donnybrook Balingup Bushfire Risk Management Plan

2017 - 2022

Contents

Document Control

Document Name	Bushfire Risk Management Plan	Current Version	2.4
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Document Endorsements

The Donnybrook Balingup Shire Council confirms that the Bushfire Risk Management Plan (BRM Plan) has been reviewed and assessed by the Office of Bushfire Risk Management as compliant with the standard for bushfire risk management planning in Western Australia, the *Guidelines for Preparing a Bushfire Risk Management Plan*. The Shire of Donnybrook Balingup is the owner of this document and has responsibility, as far as is reasonable, to manage the implementation of the BRM Plan and facilitate the implementation of bushfire risk management treatments by risk owners.

The endorsement of the BRM Plan by The Donnybrook Balingup Shire Council satisfies their endorsement obligations under section 2.3.1 of the *State Hazard Plan for Fire* (*Westplan Fire*).

In approving this BRM Plan, the Shire of Donnybrook Balingup Council is acknowledging the assets that have been identified and the risk ratings and treatment priorities assigned. Approval of the BRM Plan is a commitment by the Shire of Donnybrook Balingup to work with land owners and managers to address unacceptable risk within the community. Endorsement of this BRM Plan is not committing the Shire of Donnybrook Balingup to a program of treatment works to be implemented by others, or an acceptance or responsibility for risk occurring on land that is not owned or managed by the shire.[1]

Local Government	Representative	Signature	Date
Shire of Donnybrook Balingup	Ben Rose CEO	*[signature]*	17.01.2018

Amendment List

Version	Date	Author	Section
1.0	April 2016	Bushfire Risk Management Officer	Draft BRMP
2.3	November 2017	Bushfire Risk Planning Coordinator	Draft BRM Plan

Publication Information

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[1] Department of Fire & Emergency Services, Office of Bushfire Risk Management, *Guidelines for Preparing a Bushfire Risk Management Plan (Nov 2015)*, Pg79.

1. Introduction

1.1 Background

Under the *State Hazard Plan for Fire* (*Westplan Fire*) an integrated Bushfire Risk Management Plan (BRM Plan) is to be developed for local government areas with significant bushfire risk. This BRM Plan has been prepared for the Shire of Donnybrook Balingup in accordance with the requirements of *Westplan Fire* and the *Guidelines for Preparing a Bushfire Risk Management Plan* (Guidelines). The risk management processes used to develop this BRM Plan are aligned to the key principles of *AS/NZS ISO 31000:2009 Risk management – Principles and guidelines* (AS/NZS ISO 31000:2009), as described in the Second Edition of the *National Emergency Risk Assessment Guidelines* (NERAG 2015). This approach is consistent with the policies of the State Emergency Management Committee, specifically the *State Emergency Management Policy 3.2 – Management of Emergency Risks.*

This BRM Plan is a strategic document that identifies assets at risk from bushfire and their priority for treatment. The Treatment Schedule sets out a broad program of coordinated multi-agency treatments to address risks identified in the BRM Plan. Government agencies and other land managers responsible for implementing treatments participate in developing the BRM Plan to ensure treatment strategies are collaborative and efficient, regardless of land tenure.

1.2 Aim and Objectives

The aim of the BRM Plan is to document a coordinated and efficient approach toward the identification, assessment and treatment of assets exposed to bushfire risk within the Shire of Donnybrook Balingup.

The objective of the BRM Plan is to effectively manage bushfire risk within the Shire of Donnybrook Balingup in order to protect people, assets and other things of local value. Specifically, the objectives of this BRM Plan are to:

- Guide and coordinate a tenure blind, multi-agency bushfire risk management 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 bushfire risk management activities;
- Integrate bushfire risk management into the business processes of local government, land owners and other agencies;
- Ensure there is integration between land owners and bushfire risk management programs and activities;
- Monitor and review the implementation of treatments to ensure treatment plans are adaptable and risk is managed at an acceptable level.

1.3   Legislation, Policy and Standards

The following legislation, policy and standards were considered to be applicable in the development and implementation of the BRM Plan.

1.3.1   Legislation

- *Bush Fires Act 1954*
- *Emergency Management Act 2005*
- *Fire Brigades Act 1942*
- *Fire and Emergency Service Act 1998*
- *Conservation and Land Management Act 1984*
- *Environmental Protection Act 1986*
- *Environmental Protection and Biodiversity Conservation Act 1999*
- *Wildlife Conservation Act 1950*
- *Aboriginal Heritage Act 1972*
- *Metropolitan Water Supply, Sewerage and Drainage Act 1909*
- *Country Areas Water Supply Act 1947*
- *Building Act 2011*
- *Bush Fires Regulations 1954*
- *Emergency Management Regulations 2006*
- *Planning and Development (Local Planning Scheme) Regulations 2015*
- *Shire of Donnybrook Balingup Bushfire Brigades Local Law 2000*

1.3.2   Policies, Guidelines and Standards

- National Emergency Risk Assessment Guidelines (NERAG) (Second Edition 2015)
- State Emergency Management Policy 3.2 - Emergency Management in Local Government Districts
- State Emergency Management Policy 3.2 - Management of Emergency Risks
- State Hazard Plan for Fire (Westplan Fire)
- State Planning Policy 3.7: Planning in Bushfire Prone Areas
- State Planning Policy 3.4: Natural Hazards and Disasters
- Guidelines for Planning in Bushfire Prone Areas (2015)
- Western Australian Emergency Risk Management Guidelines (Emergency Management WA 2005)
- A Guide to the Use of Pesticides in Western Australia (Dept. of Health 2010)
- Guidelines for Plantation Fire Protection (DFES 2011)
- Firebreak Location, Construction and Maintenance Guidelines (DFES)
- Bushfire Risk Management Planning – Guidelines for preparing a Bushfire Risk Management Plan (2015)
- AS/NZS ISO 31000:2009 - Risk management – Principles and guidelines
- AS 3959-2009 Construction of buildings in bushfire-prone areas
- Building Protection Zone Standards (DFES)
- Shire of Donnybrook Balingup Fire Control Policies

1.3.3 Other Related Documents

- National Strategy for Disaster Resilience
- National Statement of Capability for Fire and Emergency Services (AFAC 2015)
- Public Service Circular No. 88 Use of Herbicides in Water Catchment Areas (Dept. of Health 2007)
- Code of Practice for Timber Plantations in Western Australia (Forest Products Commission 2006)
- Bushfire Risk Management Planning Handbook
- Bushfire Risk Management System (BRMS) User Guide
- Shire of Donnybrook Balingup Local Emergency Management Arrangements
- Shire of Donnybrook Balingup Bushfire Response Plan
- Shire of Donnybrook Balingup Annual Firebreak Order
- Shire of Donnybrook Balingup Strategic Community Plan
- Shire of Donnybrook Balingup Corporate Business Plan

2. The Risk Management Process

The risk management processes used to identify and address risk in this BRM Plan are aligned with the international standard for risk management, AS/NZS ISO 31000:2009, as described in NERAG (2015). This process is outlined in Figure 1 below.

Figure 1 - An overview of the risk management process [2]

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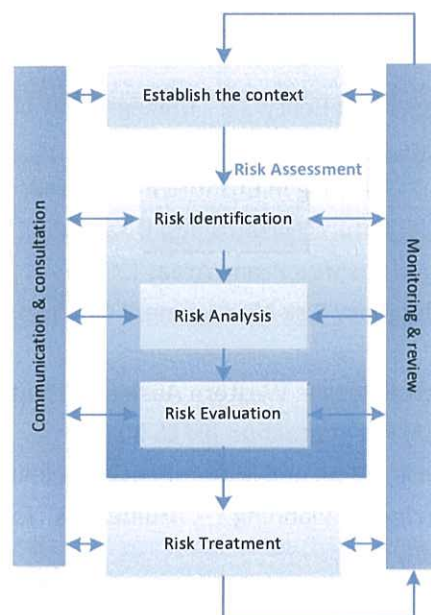
[2] Source: AS/NZS ISO 31000:2009, Figure 3, reproduced under SAI Global copyright Licence 1411-c083.

2.1 Roles and Responsibilities

Table 1 – Roles and Responsibilities

Stakeholder Name*	Roles and Responsibilities
Local Government	- As custodian of the BRM Plan, coordination of the development and ongoing review of the integrated BRM Plan. - Negotiation of commitment from land owners to treat risks identified in the BRM Plan. - As treatment manager, implementation of treatment strategies. - As part of the approval process, submission of the draft BRM Plan to the Office of Bushfire Risk Management (OBRM) to review it for consistency with the Guidelines. - As part of the approval process, submission of the final BRM Plan to Council for its endorsement and adoption.
Department of Fire and Emergency Services (DFES)	- Participation in and contribution to the development and implementation of BRM Plans, as per their agency responsibilities as the Westplan Fire Hazard Management Agency. - Support to local government through expert knowledge and advice in relation to the identification, prevention and treatment of bushfire risk. - Facilitation of local government engagement with state and federal government agencies in the local planning process. - Undertake treatment strategies, including prescribed burning on behalf of Department of Planning, Lands & Heritage for Unmanaged Reserves and Unallocated Crown Land within gazetted town site boundaries. - In accordance with Memorandums of Understanding and other agreements, implementation of treatment strategies for other landholders.
Office of Bushfire Risk Management (OBRM)	- Under the OBRM Charter, to ensure bushfire risk is managed in accordance with AS/NZS ISO 31000 and reporting on the state of bushfire risk across Western Australia. - Review BRM Plans for consistency with the Guidelines prior to final endorsement by council.
Department of Biodiversity, Conservation and Attractions (DBCA)	- Participation in and contribution to the development and implementation of BRM Plans. - Providing advice for the identification of environmental assets that are vulnerable to fire and planning appropriate treatment strategies for their protection. - As treatment manager, implementation of treatment strategies on department managed land and for Unmanaged Reserves and Unallocated Crown Land outside gazetted town site boundaries. - In accordance with Memorandums of Understanding and other agreements, implementation of treatment strategies for other landholders.
Other State and Federal Government Agencies	- Assist the local government by providing information about their assets and current risk treatment programs. - Participation in and contribution to the development and implementation of BRM Plans. - As treatment manager, implementation of treatment strategies.
Public Utilities	Assist the local government by providing information about their assets and current risk treatment programs.

Stakeholder Name*	Roles and Responsibilities
	- Participation in and contribution to the development and implementation of BRM Plans. - As treatment manager, implementation of treatment strategies.
Corporations and Private Land Owners	- As treatment manager, implementation of treatment strategies.

2.2   Communication & Consultation

As indicated in Figure 1 (page 8), communication and consultation throughout the risk management process is fundamental to the preparation of an effective BRM Plan. To ensure appropriate and effective communication occurred with relevant stakeholders in the development of the BRM Plan, a *Communication Strategy* was prepared. The strategy is provided at **Appendix 1**.

3. Establishing the Context

3.1 Description of the Local Government and Community Context

3.1.1 Strategic and Corporate Framework

The vision for the Shire of Donnybrook Balingup is *"proud community enjoying our rural lifestyle, cultural heritage and natural environment."*[3]

The Shire's organisational structure identifies that the Manager Development & Environmental Services is responsible for the BRM Plan processes, sustainability and continuity. Accepting that there are multiple stakeholders (outside of the LG) involved in the effective implementation of the BRM Plan process, it is important to note that the Shire's responsibility is to facilitate the management of the risk of bushfires to the community as supported by the provision of this plan. In the event that the Bushfire Risk Planning Coordinator role concludes, the Local Government's CEO shall delegate responsibility for the implementation of this plan.

This BRM Plan aims to strengthen the Shire's capacity to achieve its overall corporate vision and goals to encourage community organisations and local communities to work together to be self-sufficient and aims to provide guidance on negotiating and selecting suitable treatment strategies for mitigation of bushfire-related risks. This approach allows the responsible land holder to allocate limited resources most effectively in order to lower the inherent risk to an acceptable level.

The BRM Plan is a hazard specific plan that addresses significant bushfire risks within the LG, it aims to integrate bushfire risk management programs and activities into the business processes of the Shire, other agencies and land owners. The outcomes of the BRM Plan will be used to inform LG when preparing and then implementing bushfire mitigation strategies for Shire managed land.

Existing and future bushfire risk management programs will utilise the BRM Plan risk register to prioritise resources and influence the decision-making process. The Shire reports on non-compliances for all high-risk assets requiring mitigation works as a priority and ensure consultation occurs and treatment works are prioritised using this risk management approach.

Fire remains the highest risk factor to the community from an emergency management perspective. The Shire is faced with increased fire risk to people and property due to a drying climate, development within and around high fuel load areas plus an increasing pressure on fire brigade volunteers to support fire response requirements. With the BRM Plan the Shire will increase efforts to support and promote existing bushfire preparation programs while educating and providing valuable information to the community.

This BRM Plan aims to strengthen the Shire's capacity to achieve its overall corporate vision and goals as detailed in the Community Strategic Plan 2017[4]. In particular, Community importance and satisfaction lists the following community outcomes:

- Community Engagement
- Safer communities
- Strong community groups and networks
- Town planning
- Support for volunteers

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[3] Shire of Donnybrook Balingup *10+ Year Strategic Community Plan* 2017. (pg.4). Retrieved from http:// www.Donnybrook Balingup.wa.gov.au/our-council/plan-for-the-future/

[4] Shire of Donnybrook Balingup *10+ Year Strategic Community Plan* 2017. (pg.9).

The BRM Plan encourages community organisations and local communities to work together to be self-sufficient and aims to provide guidance on negotiating and selecting suitable treatment strategies for mitigation of bushfire-related risks. This approach allows the responsible land holder to allocate its scarce resources most effectively in order to lower the inherent risk to an acceptable level.

3.1.2 Location, Boundaries, History and Tenure

The town of Donnybrook is located approximately 213 kilometres south of Perth and 40 kilometres south east of Bunbury. Balingup is located 37 kilometres to the south east of Donnybrook.[5]

The Shire covers 1,559.15 km2 of agricultural farmland, state forest and national parks, mining leases, Crown land and town sites.

 The area was first settled around 1842 and the first European settlers named the area Donnybrook after a suburb of Dublin, Ireland where they came from. The western part of the town site is still known as Irishtown. Gold was discovered in 1897 about 6 kilometres south of the Donnybrook town site and sparked a mini gold rush. However, the mine was short-lived and closed in 1903.

The town of Donnybrook was gazetted in 1894 and in the following year Balingup was declared a township. Other townships in the Shire are Argyle, Brookhampton, Grimwade, Kirup, Lowden, Mulallyup, Mumballup, Newlands, Noggerup, and Yabberup.

Orchards were first established in the area in the late 1890s and the district became the home of the WA apple industry. The first Granny Smith apple tree was planted in 1900, and many landmarks are based on this fruit. Apple shaped street lights line the entrance of the old railway station and the Apple Fun Park and entry statements also have an apple theme.

Appropriate management of fire is required to minimise the adverse impact of bushfire to communities, associated infrastructure and the local economy, biodiversity conservation and identified cultural areas. Through the BRM Plan process, management parcels were identified, based on tenure boundaries and existing access networks, with a number of management cells extending across multiple tenures.

Land Managers are responsible for allocating resources to implement the appropriate treatment strategies. At a minimum, the selected treatment must meet or exceed the requirements of relevant legislation, policies and standards.

The Shire of Donnybrook Balingup contains large areas of forested crown estate (53.66%), managed by Department of Biodiversity, Conservation and Attractions (DBCA) and freehold land (41.67%), with the majority of the population and communities along the Preston River. The Shire of Donnybrook Balingup is responsible for the management of approximately (2.02%) of reserves and parks. The Department of Fire and Emergency Services (DFES) is responsible for the management of fire prevention on (0.19%) of Unallocated Crown Land (UCL) and Unmanaged Reserves (UMR) within and adjacent to gazetted town site boundaries under a memorandum of understanding with the Department of Planning, Lands and Heritage (DPLH).

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[5] UHY Haines Norton (WA) Pty Ltd. (2015 July 22). *Shire of Donnybrook Balingup 10+ Year Strategic Community Plan 2015.* (pg.7). Retrieved from http:// www.Donnybrook Balingup.wa.gov.au/our-council/plan-for-the-future/

Table 2 – Overview of Land Tenure and Management within the BRM Plan Area [6]

Land Manager/Agency*	% of Plan Area
Local Government	2.02%
Private	41.67%
Department of Biodiversity, Conservation and Attractions	53.66%
Department of Planning, Lands and Heritage	0.19%
Other	2.46%
Total	100%

3.1.3 Population and Demographics

More than 123,000 people live in the South-West region and with a growth rate three times that of the national average the South West has one of the fastest growing populations of regional Western Australia.[7]

The Shires proximity to Bunbury (40kms) is also a factor reflected in a population growth rate of 2.5% which equates to 60 new homes constructed each year.

The Shire of Donnybrook Balingup represents 3.4% of the total south-west population and is the eighth fastest growing local government in Western Australia. It has a total resident population of 5,901 [8] persons with the median age of the population being 45.7.

There are three main town sites within the Shire: Donnybrook, Kirup and Balingup. Donnybrook is the largest of the towns with a population of approximately 2600 people).

The age distribution of the population in the Shires shows the proportion of residents that are aged below 40 years is considerably lower than the State average.

In contrast, the number of people aged from 45 to 74 years is noticeably higher than the State average and may be due to the combination of long term residents remaining in the Shire and people of this age group choosing to settle in the area for the lifestyle.

The aging population in the Shire is a key element in future planning. Adequate facilities are required to service the community, to achieve a sustainable population mix for the Shire and to maintain a balance in population.

It is imperative to attract younger residents to the Shire, including skilled health care professionals who will themselves then support the 'ageing in place' model. The challenge for the community will be to become large enough to support such a group, while maintaining current levels of amenity and quality of life.[9]

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[6] Department of Fire & Emergency Services. *Cadastral Data: Spatial Services*

[7] The Shire Donnybrook Balingup. (April 2017). Retrieved from http://www.Donnybrook Balingup.wa.gov.au/business-tourism/the-region/

[8] Donnybrook Balingup. (2015). *Shire of Donnybrook Balingup Annual Report 2015/16*. (pg.3). Retrieved from http://www.Donnybrook Balingup.wa.gov.au/our-council/annual-reports/

[9] Shire of Donnybrook Balingup. (August 2014). *Age Friendly Community Study*. (Pg15) Retrieved from http://www.Donnybrook Balingup.wa.gov.au/our-council/aged-friendly-communities-study/

Graph 1 – Resident population by age group [10]

Resident population by age group (2011)

Data Source: Australian Bureau of Statistics — Donnybrook-Balingup — WA Average
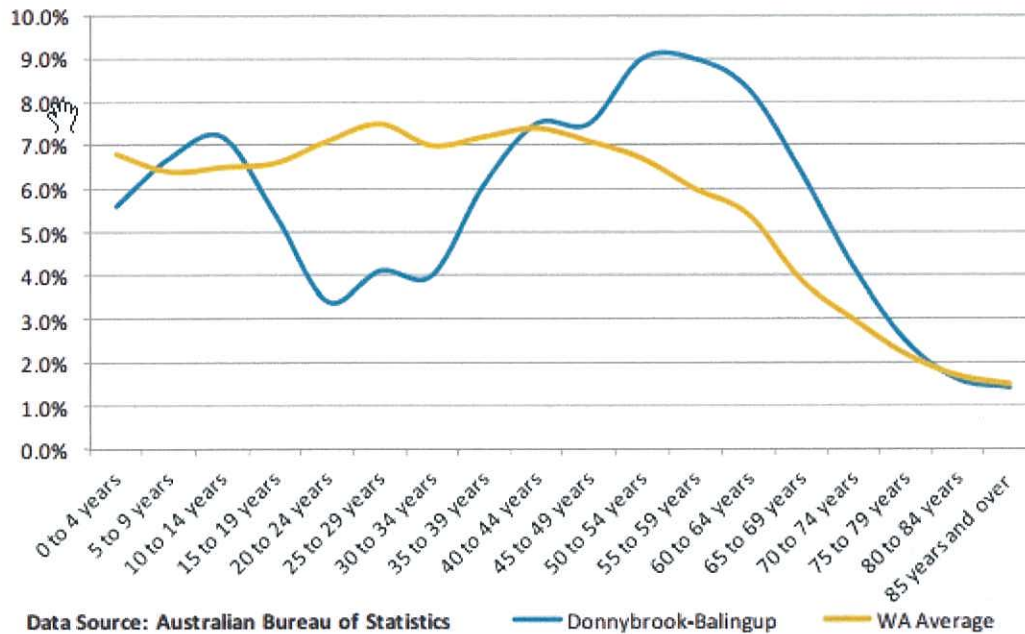
Work Force

- Labour force employed   3,131

- Unemployment rate   4.1%

Average Income

- Average taxable income per annum $63,091

Agriculture

- Total agricultural land holdings   42,936 hectares

- Number of farms   354

- Value of agriculture production $46 million

Sourced (www.abs.gov.au/census 2011)

Significant strategic planning has been carried out to help guide the future growth of the towns and Shire as a whole with the outcomes published in the Local Planning Strategy. This planning has been developed to ensure the towns and Shire benefit from this with as little impact as possible on the current lifestyle that the community require.

In relation to bushfire risk, consideration has been given through the strategic planning process to the potential impacts of damage from bushfire flame attack, radiant heat or spotting as a part of this BRM Plan. Population is also considered in relation to the number of people vulnerable in the event of a bushfire.

Other challenges for the Shire into the future include local government reform, meeting community and visitor expectations and the impact of climate change. Local facilitators of community bushfire

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[10] UHY Haines Norton (WA) Pty Ltd. (2015 July 22). *Shire of Donnybrook Balingup 10+ Year Strategic Community Plan 2015.* (pg.7). Retrieved from http:// www.Donnybrook Balingup.wa.gov.au/our-council/plan-for-the-future/

preparedness groups and activities are reporting that majority of the attendance and interest is from the older members of the community.

Over the past three years community engagement and bushfire ready programs have been employed by the Shire in conjunction with DFES in the locations of Irishtown, Argyle and Balingup. With the recent fire history with in these locations this help to the community on resilience from the impact of bushfire has proven to be beneficial.

3.1.4   Economic Activities and Industry

The Shire supports a strong and diverse economy which includes agriculture (including orchards, horticulture and viticulture), timber and forest products, aquaculture, retail, tourism, service industries and quarrying/mining. Agriculture is the main driver of the local economy with the value of the agricultural production at $46 million.

The area has a favourable combination of landform/soils, climate and water supply, which have made it a productive agricultural area and a significant contributor to the agricultural industry in Western Australia. Donnybrook is the service centre for the Shire and contains industrial areas in town and at the Sandhills Industrial Estate.

The Shire has relatively high levels of economic self-sufficiency (the number of jobs available as a percentage of the working population). Additionally, the Shire accommodates a considerable number of transient workers including people working on orchards and vineyards, who are also involved in the packaging and distribution of horticultural produce. The local government is acutely aware of the rural tourist industry and continues to actively encourage such development, where complementary to existing or predominant rural activities.

There has been a significant investment in and development of plantation forestry within the Shire over many years, more recently hard wood varieties for wood chips and paper pulp production. Prior to their plantation being approved by the Shire, plantation owners need to meet certain conditions to help protect against the impact of bushfire. These conditions range from compartmentation of the plantations, access to water, internal - external firebreaks[11] and private firefighting resources.

There is a small wine industry throughout the Shire of Donnybrook Balingup. Production would be significantly impacted in the event of a fire and/or a heavy smoke event in the region. During the autumn months, the vines carry grapes which have been known to be damaged by 'smoke taint' from nearby fires or prescribed burns. Careful consideration should be given to areas where vineyards are located, and if possible, prescribed burns should be planned for Spring in these areas.

The Shire's local economy has the benefit of several diverse industries nearby and is one of the fastest growing rural Shire's in the area. Tourist accommodation ranges from 5-star accommodation to boutique bed and breakfast establishments.

Tourism is also rapidly becoming an important industry, with many local attractions including the scenic areas of the Blackwood River Valley, State Forests and several established wineries. A number of events are held each year with the largest being the annual 'Donnybrook Apple Festival' and 'Balingup Small Farm Field Day' both held in April. During the week leading up to both events burning permits will not be issued and local bushfire members will remain in the Shire due to the influx of tourist.

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[11] Shire of Donnybrook Balingup. *FIRE BREAK ORDER*. 2016/2017

Table 3 – Events held within the Shire of Donnybrook Balingup [12]

Event	Month	Approx. Attendees
Donnybrook Apple Festival	April	10,000
Balingup Small Farm Field Day	April	10,000
Balingup Medieval Carnivale	August	7,000
Donnybrook Food & Wine Festival	November	4,000
Telling Tales in Balingup	July	700
Golden Valley Spring Picnic	October	700

3.2 Description of the Environment and Bushfire Context

3.2.1 Topography and Landscape Features

Topography, slope aspect and vegetation contribute to bushfire risk, fuel drying and will influence the fire rate of spread (ROS), and therefore intensity, and by affecting access for suppression forces. The risk associated with topography is assessed in relation to response access and as a variable in predicting fire behaviour and the calculation of the amount of mitigation required for each community/asset.

The Preston and Blackwood Rivers are the two-major river/valley systems within the LGA with Thompson Brook and the Capel River being minor systems. The topography is undulating with steep slopes in the Blackwood River valley system. The Preston River, Thompson Brook & Capel River valley systems are not as steep but still have impact on bushfire behaviour. This provides severe limitations to vehicle access and will potentially hinder bushfire suppression activities due to steep ground. Careful consideration is required when determining bushfire suppression strategies and bushfire mitigation works for both environmental factors and safety to emergency responders.

The effect of topography on fire behaviour and subsequent treatment buffers required for the communities identified within this BRM Plan should be evaluated in accordance with AS3959-2009.

3.2.2 Climate and Bushfire Season

The Shire of Donnybrook Balingup climate is described as Mediterranean, with distinct mild, wet winter and dry summer seasons. Winter rainfall is predominately rain-bearing, low-pressure systems moving in a westerly direction with an average annual rainfall of around 974mm per year and an average wind speed of 13.6 km/hr.

Summers are very dry, with December to February receiving a monthly average of less than 15mm of rain. The hot, dry summers and seasonal strong winds create an environment where there is always a significant risk of bushfire, therefore a high degree of caution is required by residents and visitors at all times.

Bushfire threat is typically associated with very hot (above average temperatures), dry (less than 20% humidity), and windy (above 12-

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[12] Shire of Donnybrook - Balingup Visitor Centre

15 km per hour) conditions and high fuel loads. The climate influences all of these factors and is the primary control on fire activity. The average maximum temperature in the bushfire season is between December and March is 29.22 degrees Celsius.

A general decrease in rainfall is found when compared to the long-term average, especially of importance at the break of the season. A 14% difference was found when comparing the 10 and 30-year averages to the long-term average, whilst the difference was 31% between the 5 years and long-term averages. Although the latter does not necessarily impact negatively on pastures, it raises concerns for water harvesting, the plantation industry and the threat of bushfire due to increased soil dryness, and therefore increased fire intensity and spread.

It is noted that Restricted burning times (permits required) in the Shire of Donnybrook Balingup are 1st November to 14th December and 15th March to 26th April. Prohibited burning times are 15th December to 14th March each year. [13]

Figure 2 - Donnybrook wind rose shows frequency of wind direction and speeds recorded over the last 5 years [14].

Donnybrook – Wind Rose
01/6/2012 to 30/06/2017

Legend:
- < 2 km/h
- 2–8 km/h
- 8–15 km/h
- 15–22 km/h
- 22–29 km/h
- 29–36 km/h
- > 36 km/h
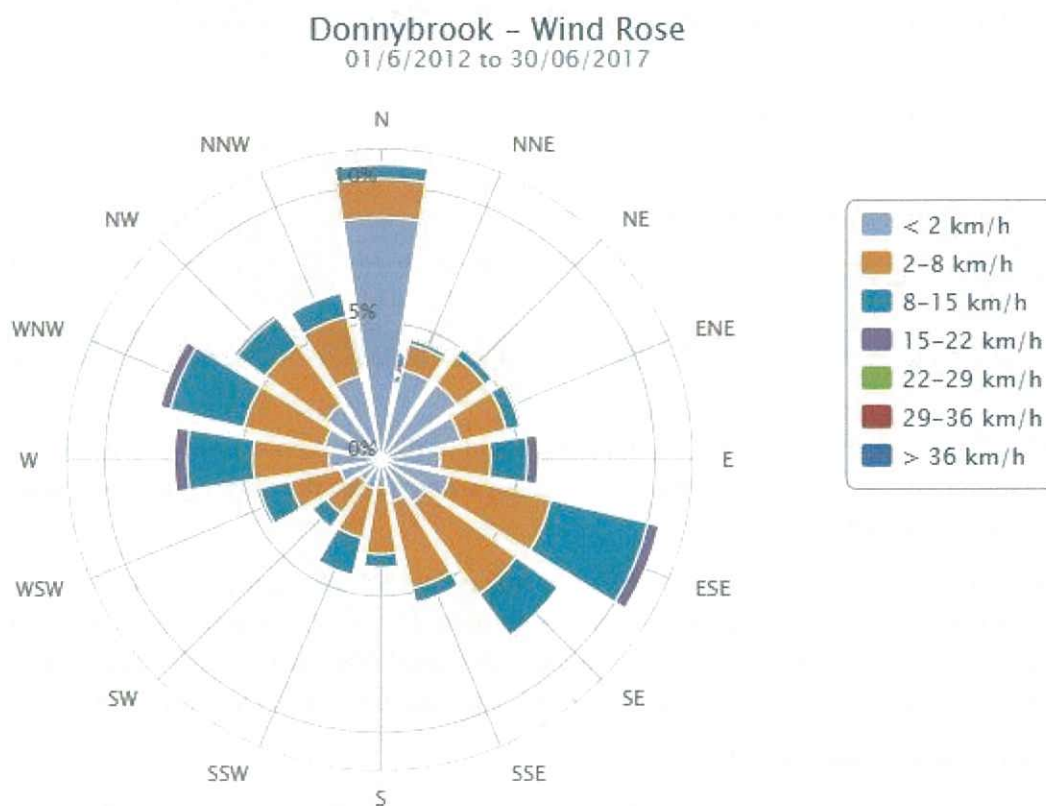
3.2.3   Vegetation

The local government considers that the protection of remnant vegetation and the retention of biodiversity is a high priority in the Shire[15.]. Part of the local government's strategy is to support the creation of Bushland Protection Zones where the conservation values of the vegetation can be

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[13] Shire of Donnybrook Balingup. FIRE BREAK ORDER. 2016/2017.

[14] www.agric.wa.gov.au/weather-stations

[15] Shire of Donnybrook Balingup. (Pg19). (June 2014). *Local Planning Strategy*. Retrieved from https://www.planning.wa.gov.au/dop_pub_pdf/LPS_donnybrook.pdf

appropriately justified and where other key planning considerations are suitably addressed including bushfire management, land use compatibility and landscape protection considerations.

Broad vegetation types are found within the Shire of Donnybrook Balingup. Table 4 provides an overview of the major vegetation types that will influence fire behaviour in the region and to evaluate potential rates of spread and spotting under 95th percentile weather conditions.

Vegetation types provide an overview of the major fuels that will influence fire behaviour and will assist in the completion of risk assessment by evaluating factors such as, potential rates of spread and spotting. Understanding the type of vegetation also assists in assessing mitigation areas required for each community and asset. The major vegetation types within the Shire include Jarrah – Marri forests, Jarrah - Wandoo (Eucalyptus wandoo), paper bark & tea tree. Areas of the Shire cleared of forest are predominantly agricultural farming of sheep and cattle.

Table 4 – Major **Vegetation type**

Vegetation Community[16]	Area (ha)	% of Total Area	Bushfire Predictive Model
Cleared Land	68,269.4	43.79%	Nil
Medium woodland, Jarrah, Eucalyptus, Marri, Banksia & Wandoo	26,375.20	16.92%	Vesta
Shrublands tree-heath; paperbark over teatree thickets	48.8	0.03%	Vesta
Medium forest; jarrah-marri	61,221.6	39.27%	Vesta
TOTAL	155,915	100%	

3.2.4 Bushfire Frequency and Causes of Ignition

The aim of the Shire is to mitigate destructive bushfires and to this aim, some areas of the Shire are subject to hazard removal and roadside burning which is carried out by the Shires bushfire brigades and when resources permit.

The requirements of the Shires annual firebreak order (the order) are considered to be the minimum standard of fire prevention work required to protect not only individual properties but the district generally. In addition to the requirements of the order the Local Government may issue separate special orders on owners or occupiers if hazard removal is considered necessary in some specific areas.

"By reducing the hazard, you reduce the risk."

There are 12 local government bushfire brigades funded by the Local Government Grant Scheme (LGGS) consisting of 17 firefighting appliances throughout the Shire. It is acknowledged by the Shire that the funded firefighting appliances are enhanced by the numerous privately owned slip on style firefighting units. All of the brigades are volunteers.

In past years, bushfire brigades on average have generally attended 15 or less bushfires each season. In 2011/12 there was a considerable increase in the number of bushfires that the brigades attended but this cannot be attributed to any specific reason. For the seasons 2014/15 and 2015/16 the upward trend can be attributed to increase in Suspicious – Deliberate fires due to arson.

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[16] Vegetation of Western Australia Dataset provided by DEFS. 2016

The use of the Local Government Grants Scheme (LGGS) Capital and Operating Grants report for reporting is due to that not all fires have been reported to DFES by the bushfire brigades.

Bushfire Brigades attendence.
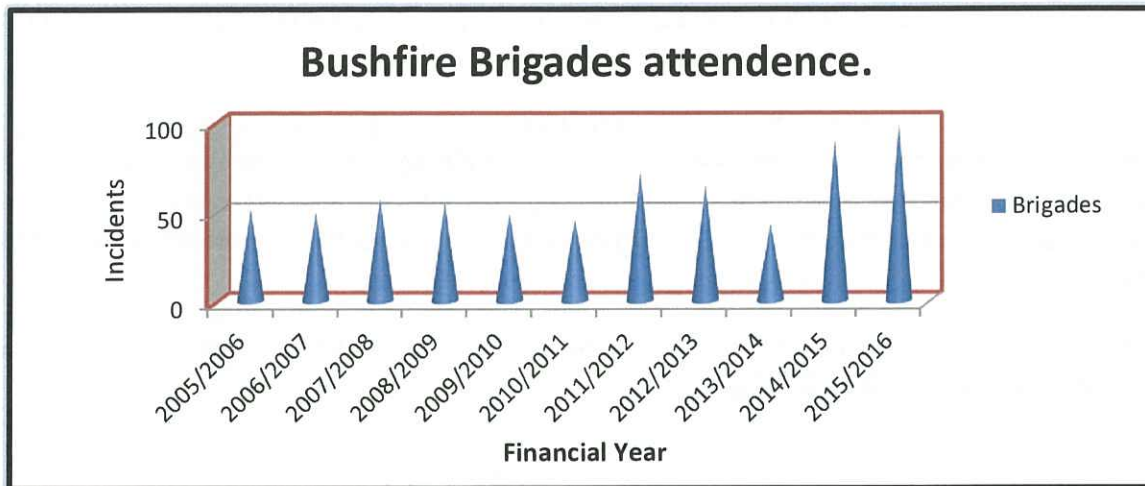
In 2015/16 Donnybrook Balingup bushfire brigades attended 99 incidents of which the Shire rangers received 70 bushfire reports, and provided 600 hours of training for bushfire brigade volunteers.

The causes of bushfires with in the Shire for the financial year 2015 – 2016 are as follows:

Suspicious – Deliberate and *Unreported* being the major cause of bushfires, followed by *Escape Permit Burn*, *Lightning* and *Reignition* from prescribed burns / permit burns. *Campfires*, *Electrical fault*, *Hot works*, *Power lines* and *Vehicle Fire* are the final causes of how bushfires start as shown in graph 3.

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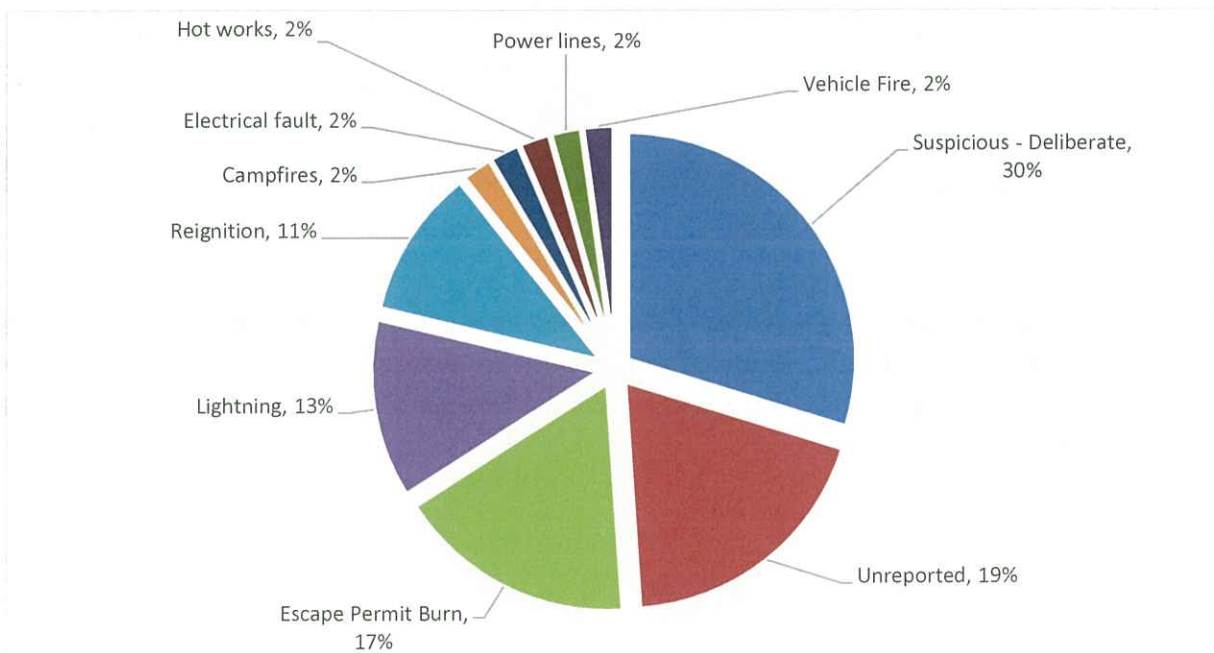
[17] Shire Donnybrook Balingup. *Local Government Grants Scheme (LGGS) Capital and Operating Grants*.
[18] Shire Donnybrook Balingup. *Local Government Grants Scheme (LGGS) Capital and Operating Grants*.

4.   Asset Identification and Risk Assessment

4.1   Planning Areas

The Donnybrook Balingup Shire has been divided into three planning areas. (1. Donnybrook, 2. Kirup – Balingup, 3. Mumballup) Attached at **Appendix 2** is a map showing the boundaries of the planning areas identified within the Donnybrook Balingup Shire.

4.1.1   Priorities for Asset Identification and Assessment

The *Planning Area Assessment Tool* was applied to each planning area to determine the priorities for asset identification and assessment. Using the tool, each planning area was rated against six risk factors, with the highest scoring planning area being the first priority for asset identification and risk assessment.

Assets were identified and assessed in each planning area, based on the results of the planning area assessment outlined in the following table.

Table 5 – Planning Area Assessment Summary

Risk Factor	Donnybrook	Kirup – Balingup	Mumballup
1. % of LG Population in Planning Area	160	80	20
2. Fuel Structures	60	60	100
3. Assets	60	60	40
4. Rural Urban Interface	100	60	20
5. Suppression response times	40	60	60
6. Suppression strategies	40	60	80
TOTAL	460	380	320
PRIORITY	1	2	3

4.2   Asset Identification

Asset identification and risk assessment has been conducted at the local level using the methodology described in the Guidelines[19]. Identified assets have been mapped, recorded and assessed in the Bushfire Risk Management System (BRMS). Identified assets are categorised into the following subcategories:

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[19]Department of Fire and Emergency Services. *Guidelines for Preparing a Bushfire Risk Management Plan*. Retrieved from:
https://www.dfes.wa.gov.au/waemergencyandriskmanagement/obrm/pages/publications.aspx

Table 6 – Asset Categories and Subcategories

Asset Category	Asset Subcategories
Human Settlement	• **Residential areas** Rural urban interface areas and rural properties. • **Places of temporary occupation** Commercial, mining and industrial areas located away from towns and population centres (that is, not adjoining residential areas). • **Special risk and critical facilities** Hospitals, nursing homes, schools and childcare facilities, tourist accommodation and facilities, prison and detention centres, government administration centres and depots, incident control centres, designated evacuation centres, police, fire and emergency services.
Economic	• **Agricultural** Pasture, grazing, livestock, crops, viticulture, horticulture and other farming infrastructure. • **Commercial and industrial** Major industry, waste treatment plants, mines, mills and processing and manufacturing facilities and cottage industry. • **Critical infrastructure** Power lines and substations, water and gas pipelines, telecommunications infrastructure, railways, bridges, port facilities and waste water treatments plants. • **Tourist and recreational** Tourist attractions and recreational sites that generate significant tourism and/or employment within the local area. • **Commercial forests and plantations** • **Drinking water catchments**
Environmental	• **Protected** Rare and threatened flora and fauna, ecological communities and wetlands. • **Priority** Fire sensitive species and ecological communities. • **Locally important** Nature conservation and research sites, habitats, species and communities, areas of visual amenity.
Cultural	• **Aboriginal heritage** Places of indigenous significance. • **Recognised heritage** Assets afforded legislative protection through identification by the National Trust, State Heritage List or Local Planning Scheme Heritage List. • **Local heritage** Assets identified in a Municipal Heritage Inventory or by the community. • **Other** Other assets of cultural value, for example community centres and recreation facilities.

4.3   Assessment of Bushfire Risk

Risk assessments have been undertaken for each asset or group of assets identified using the methodology described in the Guidelines.

The percentage of assets within the local government in each asset category at the time of BRM Plan endorsement is shown in the following table

Table 7 – Asset Category Proportions

Asset category	Proportion of identified assets
Human Settlement	75.9%
Economic	14.3%
Environmental	1.3%
Cultural	8.5%

4.3.1   Likelihood Assessment

Likelihood is described as the chance of a bushfire igniting, spreading and reaching 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: almost certain, likely, possible, and unlikely.

Table 7 – Likelihood Ratings

Likelihood Rating	Description
Almost Certain (Sure to Happen)	• Is expected to occur in most circumstances; • High level of recorded incidents and/or strong anecdotal evidence; and/or • Strong likelihood the event will recur; and/or • Great opportunity, reason or means to occur; • May occur more than once in 5 years.
Likely (Probable)	• Regular recorded incidents and strong anecdotal evidence; and /or • Considerable opportunity, reason or means to occur; • May occur at least once in 5 years.
Possible (feasible but < probable)	• Should occur at some stage; and/or • Few, infrequent, random recorded incidents or little anecdotal evidence; and/or • Some opportunity, reason or means to occur.
Unlikely (Improbable, not likely)	• Would only occur under exceptional circumstances.

4.3.2   Consequence Assessment

Consequence is described as the outcome or impact of a bushfire event. The approach used to determine the consequence rating is **different for each asset category**: Human Settlement, Economic, Environmental and Cultural.

There are four possible consequence ratings: minor, moderate, major and catastrophic.

Consequence Rating	Descriptions
Minor	- No fatalities. - Near misses or minor injuries with first aid treatment possibly required. - No persons are displaced. - Little or no personal support (physical, mental, emotional) required. - Inconsequential or no damage to an asset, with little or no specific recovery efforts required beyond the immediate clean-up. - Inconsequential or no disruption to community. - Inconsequential short-term failure of infrastructure or service delivery. (Repairs occur within 1 week, service outages last less than 24 hours.) - Inconsequential or no financial loss. Government sector losses managed within standard financial provisions. Inconsequential business disruptions.
Moderate	- Isolated cases of serious injuries, but no fatalities. Some hospitalisation required, managed within normal operating capacity of health services. - Isolated cases of displaced persons who return within 24 hours. - Personal support satisfied through local arrangements. - Localised damage to assets that is rectified by routine arrangements. - Community functioning as normal with some inconvenience. - Isolated cases of short to mid-term failure of infrastructure and disruption to service delivery. (Repairs occur within 1 week to 2 months, service outages last less than 1 week.) - Local economy impacted with additional financial support required to recover. Government sector losses require activation of reserves to cover loss. Disruptions to businesses lead to isolated cases of loss of employment or business failure. - Isolated cases of damage to environmental or cultural assets, one-off recovery efforts required, but with no long term effects to asset.
Major	- Isolated cases of fatalities. - Multiple cases of serious injuries. Significant hospitalisation required, leading to health services being overstretched. - Large number of persons displaced (more than 24 hours duration). - Significant resources required for personal support. - Significant damage to assets, with ongoing recovery efforts and external resources required. - Community only partially functioning. Widespread inconvenience, with some services unavailable. - Mid to long-term failure of significant infrastructure and service delivery affecting large parts of the community. Initial external support

Consequence Rating	Descriptions
Major	required. (Repairs occur within 2 to 6 months, service outages last less than a month.) • Local or regional economy impacted for a significant period of time with significant financial assistance required. Significant disruptions across industry sectors leading to multiple business failures or loss of employment. • Significant damage to environmental or cultural assets that require major rehabilitation or recovery efforts. • Localised extinction of native species. This may range from loss of a single population to loss of all of the species within the BRM Plan area (for a species which occupies a greater range than just the BRM Plan area).
Catastrophic	• Multiple cases of fatalities. • Extensive number of severe injuries. • Extended and large number requiring hospitalisation, leading to health services being unable to cope. • Extensive displacement of persons for extended duration. • Extensive resources required for personal support. • Extensive damage to assets that will require significant ongoing recovery efforts and extensive external resources. • Community unable to function without significant support. • Long-term failure of significant infrastructure and service delivery affecting all parts of the community. Ongoing external support required. (Repairs will take longer than 6 months, service outages last more than 1 month.) • Regional or State economy impacted for an extended period of time with significant financial assistance required. Significant disruptions across industry sectors leading to widespread business failures or loss of employment. • Permanent damage to environmental or cultural assets. • Extinction of a native species in nature. This category is most relevant to species that are restricted to the BRM Plan area, or also occur in adjoining areas and are likely to be impacted upon by the same fire event. 'In nature' means wild specimens and does not include flora or fauna bred or kept in captivity.

The methodology used to determine the consequence rating for each asset category is based on the following:

- **Consequence Rating - Human Settlement Assets**
  The outcome or impact of a bushfire event on the asset, or a group of assets, measured by the threat posed by the hazard vegetation and the vulnerability of the asset.

- **Consequence Rating - Economic Assets**

  The outcome or impact of a bushfire event on the asset, or a group of assets, measured by the level of economic impact and the recovery costs.

- **Consequence Rating - Environmental Assets**

  The outcome or impact of a bushfire event on the asset, or a group of assets, measured by the vulnerability of the asset and the potential impact of a bushfire or fire regime.

- **Consequence Rating - Cultural Assets**

  The outcome or impact of a bushfire event on the asset, or a group of assets, measured by the threat posed by the hazard vegetation and the vulnerability of the asset.

4.3.3 Assessment of Environmental Assets

Using available biological information and fire history data, environmental assets with a known minimum fire threshold were assessed to determine if they were at risk from bushfire, within the five-year life of the BRM Plan. Environmental assets that would not be adversely impacted by bushfire within the five-year period have not been included and assessed in the BRM Plan. The negative impact of a fire on these assets (within the period of this BRM Plan) was determined to be minimal, and may even be of benefit to the asset and surrounding habitat.

4.3.4 Local Government Asset Risk Summary

A risk profile for the local government is provided in the summary table below. This table shows the proportion of assets at risk from bushfire in each risk category at the time the BRM Plan was endorsed.

Table 9 – Local Government Asset Risk Summary

Risk Rating / Asset Category	Low	Medium	High	Very High	Extreme
Human Settlement	7.6%	0.4%	27.5%	18.2%	22.2%
Economic	2.2%	2.2%	0.9%	6.5%	2.5%
Environmental	0%	0%	0.8%	0.5%	0%
Cultural	2.6%	0.1%	4.7%	0.8%	0.2%

5.   Risk Evaluation

5.1   Evaluating Bushfire risk

The risk rating for each asset has been assessed against the likelihood and consequence descriptions to ensure:

- The rating for each asset reflects the relative seriousness of the bushfire risk to the asset;
- Likelihood and consequence ratings assigned to each asset are appropriate; and
- Local issues have been considered.

5.2   Treatment Priorities

The treatment priority for each asset has been automatically assigned by BRMS, based on the asset's risk rating. Table 10 shows how likelihood and consequence combine to give the risk rating and subsequent treatment priority for an asset.

Table 10 – Treatment Priorities

Consequence / Likelihood	Minor	Moderate	Major	Catastrophic
Almost certain	3D (High)	2C (Very High)	1C (Extreme)	1A (Extreme)
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)

5.3 Risk Acceptability

Risks below a certain level were not considered to require specific treatment during the life of this BRM Plan. They will be managed by routine local government wide controls and monitored for any significant change in risk.

In most circumstances risk acceptability and treatment will be determined by the land owner, in collaboration with local government and fire agencies. However, as a general rule, the following courses of action have been adopted for each risk rating.

Table 11– Criteria for Acceptance of Risk and Course of Action

Risk Rating	Criteria for Acceptance of Risk	Course of Action
Extreme (Priorities 1A, 1B, 1C)	Only acceptable with excellent controls. Immediate treatment action is required. Treatment plans to be explored and implemented. Highest level of authority notified (CEO).	Routine controls are not enough to adequately manage the risk. Immediate attention required as a priority. Specific action is required in first year of BRM Plan. Continuous monitoring required. Actions may require state or federal funding.
Very High (Priorities 2A, 2B, 2C)	Only acceptable with excellent controls. Treatment action is required, within two bushfire seasons. Highest level of authority notified (CEO) plus Senior Shire officer's.	Routine controls are not enough to adequately manage the risk. Specific action will be required during the period covered by the plan. Actions may require state or federal funding. Quarterly monitoring may be required.
High (Priorities 3A, 3B, 3C, 3D)	Only acceptable with adequate controls. Treatment action may be required.	Specific action may be required. Risk may be managed with routine controls and/or specific procedures and is subject to bi-annual monitoring.
Medium (Priorities 4A, 4B, 4C)	Acceptable with adequate controls. Treatment action is not required, but risk must be monitored regularly.	Specific action may not be required. Risk may be managed with routine controls and monitored periodically throughout the life of the BRM Plan.
Low (Priorities 5A, 5B, 5C)	Risk acceptable with adequate controls, managed by routine procedures or controls and subject to monitoring. Treatment is not required.	Need for specific action is unlikely. Risk will be managed with routine controls and monitored as required.

6.   Risk Treatment

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

There are many strategies available to treat bushfire risk. The treatment strategy (or combination of treatment strategies) selected will depend on the level of risk and the type of asset being treated. Not all treatment strategies will be suitable in every circumstance.

6.1   Local Government Wide Controls

Local government-wide controls are activities that reduce the overall bushfire risk within the Shire. These types of treatments are not linked to specific assets, and are applied across all or part of the local government as part of normal business or due to legislative requirements. The following controls are currently in place across the Shire:

- *Bush Fires Act 1954* Section 33 notices, including applicable fuel management requirements, firebreak standards and annual enforcement programs;
- Declaration and management of Prohibited Burn Times, Restricted Burn Times and Total Fire Bans for the local government;
- Public education campaigns and the use of DBCA and DFES state-wide programs, tailored to suit local needs;
- State-wide arson prevention programs developed in conjunction with WA Police and DFES;
- State planning framework and local planning schemes, implementation of appropriate land subdivision and building standards in line with DFES, Department of Planning, Lands and Heritage and Building Commission policies and standards; and
- Monitoring performance against the BRM Plan and reporting annually to the local government council and OBRM.
- The Department of Fire and Emergency Services (DFES) is responsible for the management of fire prevention of Unallocated Crown Land (UCL) and Unmanaged Reserves (UMR) within gazetted town site boundaries under a memorandum of understanding with the Department of Lands;
- Department of Biodiversity, Conservation and Attractions Annual mitigation works programs (includes mechanical works and prescribed burns that may not directly influence level of risk to a specific asset or group of assets)
- Western Power Annual Vegetation Management and asset inspection activities in Extreme and High Bushfire Risk areas completed by November 30th.
- All Fire Management Plans including but not limited to, land developments and estates. Plans are available through the Planning department at the Shire;
- The Shire of Donnybrook Balingup, Parks and Gardens annual hazard reduction works program (includes, spraying, slashing and pruning in and around established Town sites). Priority given to populated Town sites first (known works will be captured in the Bushfire Risk Management treatment schedule),
- Water Corporation Bushfire Risk Mitigation Program (Water corporation sites due to be assessed within the Shire by Water Corp. staff. Only High to Extreme risk sites will be communicated to the BRM Plan/BRPC once completed), and;

- Community "Bushfire Ready" groups facilitated by local resident's injunction with DFES are working within the localities of Argyle, Irishtown, Kirup & Balingup. Includes street meets, resources, flyers and community communication and consultation activities. Joint initiative: LG, DFES, and other community groups and associations.

A multi-agency work plan has been developed and is attached at **Appendix 3**. The plan details work to be undertaken as a part of normal business, to improve current controls or to implement new controls to better manage bushfire risk across the local government.

6.2   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 being at risk from bushfire. There are six asset specific treatment strategies:

- **Fuel management** - Treatment reduces or modifies the bushfire fuel through manual, chemical and prescribed burning methods;
- **Ignition management** - Treatment aims to reduce potential human and infrastructure sources of ignition in the landscape;
- **Preparedness** - Treatments aim to improve access and water supply arrangements to assist firefighting operations;
- **Planning** - Treatments focus on developing plans to improve the ability of firefighters and the community to respond to bushfire; and
- **Community Engagement** - Treatments seek to build relationships, raise awareness and change the behaviour of people exposed to bushfire risk.
- **Other** - Local government-wide controls, such as community education campaigns and planning policies, will be used to manage the risk. Asset-specific treatment is not required or not possible in these circumstances.

6.3   Determining the Treatment Schedule

Efforts will be made to finalise the Treatment Schedule within six months of this BRM Plan being endorsed by council. The Treatment Schedule will be developed in broad consultation with land owners and other stakeholders.

Land owners 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 detailed in this BRM Plan are completed.

7. Monitoring and Review

Monitoring and review processes are in place to ensure that the BRM Plan remains current and valid. These processes are detailed below to ensure outcomes are achieved in accordance with the *Communication Strategy* and *Treatment Schedule*.

7.1 Review

A comprehensive review of this BRM Plan will be undertaken at least once every five years, from the date of council endorsement. Significant circumstances that may warrant an earlier review of the BRM Plan include:

- Changes to the BRM Plan area, organisational responsibilities or legislation;
- Changes to the bushfire risk profile of the area; or
- Following a major fire event.

7.2 Monitoring

The Bushfire Risk Planning Coordinator or LG employee trained in the use of BRMS, will use BRMS to monitor the risk ratings for each asset identified in the BRM Plan and record the treatments implemented. Risk ratings are reviewed on a regular basis. New assets will be added to the *Asset Risk Register* when they are identified.

7.3 Reporting

The Bushfire Risk Planning Coordinator or LG employee trained in the use of BRMS, will produce reports that will be presented annually to the Bushfire Advisory Committee and Local Emergency Management Committee with a report on progress and hazard mitigation activities. These committees will then make a recommendation to Council on the annual progress reports. Council will then consider the committee recommendations before submitting a report to OBRM.

The Shire will submit an annual report to OBRM each year summarising progress made towards implementation of the BRM Plan, for as long as funding is available.

Half yearly reports shall be provided to Council on progress of treatment schedule.

Consideration shall be given to publicly reporting the mitigation activities completed by the Shire via the Shire's website or other appropriate means of communication. For example, this could be reporting on compliance to the Shire's annual indicative burn program.

8. 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 used to record the details of assets identified in the Bushfire Risk Management Plan.
Asset Risk Register	A report produced within the Bushfire Risk Management System that details the consequence, likelihood, risk rating and treatment priority for each asset identified in the Bushfire Risk Management Plan.
Bush Fire	Unplanned vegetation fire. A generic term which includes grass fires, forest fires and scrub fires both with and without a suppression objective.[20]
Bushfire Management Plan	A document that sets out short, medium and long-term bushfire risk management strategies for the life of a development.[21]
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.
Bushfire Threat	The threat posed by the hazard vegetation, based on the vegetation category, slope and separation distance.
Consequence	The outcome or impact of a bushfire event.
Draft Bushfire Risk Management Plan	The finalised draft Bushfire Risk Management Plan (BRM Plan) is submitted to the OBRM for review. Once the OBRM review is complete, the BRM Plan is called the 'Final BRM Plan' and can be progressed to local government council for endorsement.
Emergency Risk Management Plan	A document (developed under *State Emergency Management Policy 3.2*) that describes how an organisation(s) intends to undertake the activities of emergency risk management based on minimising risk. These plans help inform the ongoing development of Local Emergency Management Arrangements (LEMA) and Westplans.
Geographic Information System (GIS)	A data base technology, linking any aspect of land-related information to its precise geographic location.[22]

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[20] Australasian Fire and Emergency Service Authorities Council 2012, *AFAC Bushfire Glossary*, AFAC Limited, East Melbourne.
[21] Western Australian Planning Commission 2015, *State Planning Policy 3.7: Planning in Bushfire Prone Areas*, WAPC, Perth.
[22] Landgate 2015, *Glossary of terms*, Landgate, Perth

Geographic Information System (GIS) Map	The mapping component of the Bushfire Risk Management System. Assets, treatments and other associated information is spatially identified, displayed and recorded within the GIS Map.
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, the chance of a bushfire igniting, spreading and reaching the asset.
Locality	The officially recognised boundaries of suburbs (in cities and larger towns) and localities (outside cities and larger towns).
Planning Area	A geographic area determine by the local government which is used to provide a suitable scale for risk assessment and stakeholder engagement.
Priority	See Treatment Priority.
Recovery Cost	The capacity of an asset to recover from the impacts of a bushfire.
Responsible Person	The person responsible for planning, coordinating, implementing, evaluating and reporting on a risk treatment.
Risk 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 criteria in order to determine whether a risk is acceptable or tolerable.
Risk identification	The process of recognising, identifying and describing risks.
Risk Manager	The organisation or individual responsible for managing a risk identified in the Bushfire Risk Management Plan; including review, monitoring and reporting.
Risk Register	A component within the Bushfire Risk Management System used to record, review and monitor risk assessments and treatments associated with assets recorded in the Bushfire Risk Management Plan.
Risk treatment	A process to select and implement appropriate measures undertaken to modify risk.

Rural	Any area where in residences and other developments are scattered and intermingled with forest, range, or farm land and native vegetation or cultivated crops.[23]
Rural Urban Interface (RUI)	The line or area where structures and other human development adjoin or overlap with undeveloped bushland.[24]
Slope	The angle of the ground's surface measured from the horizontal.
Tenure Blind	An approach where multiple land parcels are considered as a whole, regardless of individual ownership or management arrangements.
Treatment	An activity undertaken to modify risk, for example a prescribed burn.
Treatment Objective	The specific aim to be achieved or action to be undertaken, in order to complete the treatment. Treatment objectives should be specific and measurable.
Treatment Manager	The organisation, or individual, responsible for all aspects of a treatment listed in the Treatment Schedule of the Bushfire Risk Management Plan, including coordinating or undertaking work, monitoring, reviewing and reporting.
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 the Bushfire Risk Management System that details the treatment priority of each asset identified in the Bushfire Risk Management Plan and the treatments scheduled.
Treatment Strategy	The broad approach that will be used to modify risk, for example fuel management.
Treatment Type	The specific treatment activity that will be implemented to modify risk, for example a prescribed burn.
Vulnerability	The susceptibility of an asset to the impacts of bushfire.

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[23] Australasian Fire and Emergency Service Authorities Council 2012, *AFAC Bushfire Glossary*, AFAC Limited, East Melbourne
[24] Australasian Fire and Emergency Service Authorities Council 2012, *AFAC Bushfire Glossary*, AFAC Limited, East Melbourne

9.   Common Abbreviations

APZ	Asset Protection Zone
BRMP	Bushfire Risk Management Planning
BRM Plan	Bushfire Risk Management Plan
BRMS	Bushfire Risk Management System
CALD	Culturally and Linguistically Diverse
DEMC	District Emergency Management Committee
DFES	Department of Fire and Emergency Services
ERMP	Emergency Risk Management Plan
FFDI	Forest Fire Danger Index
FMP	Fire Management Plan
GFDI	Grassland Fire Danger Index
GIS	Geographic Information System
HSZ	Hazard Separation Zone
JAFFA	Juvenile and Family Fire Awareness
LEMA	Local Emergency Management Arrangements
LEMC	Local Emergency Management Committee
LG	Local Government
LMZ	Land Management Zone
OBRM	Office of Bushfire Risk Management
DBCA	Department of Biodiversity, Conservation and Attractions
SEMC	State Emergency Management Committee
SLIP	Shared Land Information Platform
VESTA	Project Vesta: Fire in Dry Eucalypt Forest
WAPC	Western Australian Planning Commission

Appendices
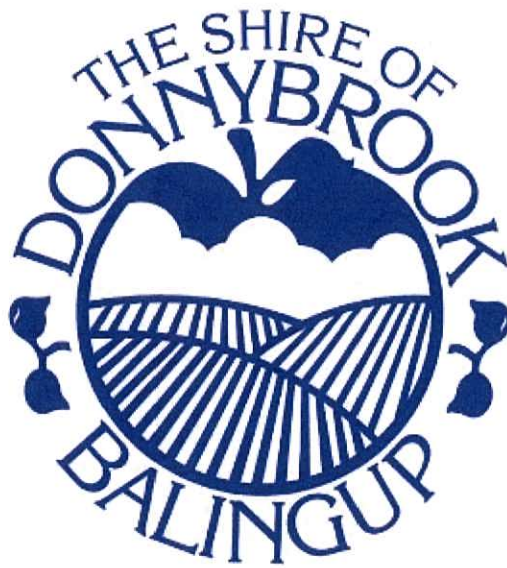
The Shire of Donnybrook Balingup

Bushfire Risk Management Planning

Communication Strategy

Document Control

Document Name	Bushfire Risk Management Plan Communications Strategy	Current Version	2.4
Document Owner	Ben Rose CEO	Issue Date	20/12/2017
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Related Documents

Title	Version	Date
Shire of Donnybrook Balingup Bushfire Risk Management Plan	2.4	20/12/2017

Amendment List

1   INTRODUCTION

A Bushfire Risk Management Plan (BRM Plan) is a strategic document that outlines the approach to the identification, assessment and treatment of assets exposed to bushfire risk within the Shire of Donnybrook Balingup. This Communication Strategy accompanies the BRM Plan for the Shire of Donnybrook Balingup. It documents the communication objectives for the BRM Plan, roles and responsibilities for communication, key stakeholders, target audiences and key messages at each project stage, communication risks and strategies for their management, and communication monitoring and evaluation procedures.

2   COMMUNICATIONS OVERVIEW

Communication Objectives

The communication objectives for the development, implementation and review of the BRM Plan for the Shire of Donnybrook Balingup are as follows:

1. Key stakeholders understand the purpose of the BRM Plan and their role in the bushfire risk management planning process.
2. Stakeholders who are essential to the bushfire risk management planning process, or can supply required information, are identified and engaged in a timely and effective manner.
3. Relevant stakeholders are involved in decisions regarding risk acceptability and treatment.
4. Key stakeholders engage in the review of the BRM Plan as per the schedule in place for the local government area.
5. The community and other stakeholders engage with the bushfire risk management planning process and as a result are better informed about bushfire risk and understand their responsibilities to address bushfire risk on their own land.

Communication Roles and Responsibilities

The Shire of Donnybrook Balingup is responsible for the development, implementation and review of the Communication Strategy. Key stakeholders support local government by participating in the development and implementation of the Communications Strategy as appropriate. An overview of communication roles and responsibilities follows:

- CEO, Shire of Donnybrook Balingup, responsible for endorsement of the BRM Plan Communications Strategy.
- Bushfire Risk Management Planning Coordinator, Shire of Donnybrook Balingup, responsible for operational-level communication between the Shire and the Department of Fire and Emergency Services.
- Manager Development and Environmental Services, Shire of Donnybrook Balingup responsible for internal and external communication with LGA, monitoring and reporting on the BRM Plan and Communication Strategy.

- Bushfire Risk Management Planning Coordinator, Shire of Donnybrook Balingup responsible for operational-level communication between the Shire and the Department of Fire and Emergency Services.
- Bushfire Risk Management Officer, Department of Fire and Emergency Services responsible for operational-level communication between Shire, Department of Fire and Emergency Services and the Office of Bushfire Risk Management.
- Chief and Deputy Bushfire Control Officer's, Shire of Donnybrook Balingup responsible for communicating BRM Plan to Shire Volunteer Bushfire Brigades.

Key Stakeholders for Communication

The following table identifies key stakeholders in bushfire risk management planning. These are stakeholders that are identified as having a significant role or interest in the planning process or are likely to be significantly impacted by the outcomes.

Stakeholder	Role or interest	Level of impact of outcomes	Level of engagement
LOCAL GOVERNMENT	Significant Role in plan development, implementation and review. Significant interest as a land manager.	High	Inform, consult, involve, collaborate and empower.
DFES	Significant Role in plan development, implementation and review. Support role In treatment Implementation.	High	Regular engagement & Consultation.
DBCA	Treatment plans, Land Management, Asset Identification	High	Regular engagement, Consultation and kept informed.
LOCAL COMMUNITY AND PRIVATE LAND OWNERS	Role in plan development, implementation and review. Significant interest as a land manager.	High	Inform, consult and involve
UTILITY COMPANIES	Role in plan development, implementation and review. Significant interest as a land manager. Critical infrastructure interest.	Medium	Inform, consult, involve and collaborate
LANDCARE GROUPS	Role in plan development, implementation and review	Medium	Inform, consult and involve
THE FRIENDS OF THE FOREST	Role in plan development, implementation and review	Medium	Inform, consult and involve
VOLUNTEERS	Significant role in plan development, implementation and review	Low	Inform, consult, involve, collaborate and empower.

1: Communications Plan

Timing of Communication	Stakeholder (s)	Communication Objective(s)	Communication Method	Key Message or Purpose	Responsibility	Identified Risks to Communication	Strategy to Manage Risks	Monitoring and Evaluation Method
Development of the BRM Plan								
Life of plan	Shire of Donnybrook Balingup CEO, Senior Leadership Team and Staff	All (1-5)	Emails Meetings (Quarterly) Shire Website	Informed, consulted, accountable or responsible. Review and input into Plan.	Bushfire Risk Planning Coordinator or Manager Development and Environmental Services	Time constraints No clear message Incorrect audience	Careful planning and time management	Feedback, questions and level of support received
Annually	Bushfire Advisory Committee (BFAC)	All (1-5)	Meetings (Quarterly) Face to Face (presentations in council chambers)	Engaged in process of BRMP Treatment Schedule and Risk Analysis	BRPC and BRMO	Plan not complete Treatments not negotiated Time constraints	Prepare presentation for each BFAC Give updates as required	Feedback, treatments negotiated and supported by committee.
Quarterly	Local Emergency Management Committee (LEMC)	1 – 3 & 5	Email Face to face meetings Presentation	Confirm project objectives Seek input into treatment plans Project updates	CEO / Delegate or BRPC	Stakeholder's willingness to participate	Preparation Ensure current information on the BRM Plan Project is available	Feedback on the presentation
Quarterly or as required	FCO's, BFB Captains, VFRS Captains	All (1-5)	Meetings organised with Each brigade or as required	Engaged in process of BRM Plan	BRPC or BRMO	Time constraints No plan, unorganised	Careful planning and time management	Feedback, support for BRMP process

| Frequency	Stakeholder		Method	Purpose	Responsible	Barriers	Strategies	Outcome
				Identify Risk, and share information		Availability of volunteers	Express value of meeting	Engaged
Biannually	Dept of Biodiversity, Conservation and Attractions (DBCA) and Forest Products Commission (FPC)	1 – 3 & 5	Face to face Meetings Email Telephone	Confirmation of environmental assets Identification of DPAW and FPC burn plans Confirming project objectives, seeking input into treatment plans and providing project updates Development of treatment options	BRPC and BRMO	Resource constraints could limit their ability to participate Willingness to release 'confidential' data re environmental assets	Clarify misunderstandings and intentions of plan Provide undertakings re the release of confidential data Restrict release of information and document in plan	Level of engagement Environmental assets in BRMS
Annually and as required	Home Owners Land Managers & Interest groups or businesses	1 & 2	Media (Newspaper) Face to face meetings Community workshops and forums	Inform of the BRM Plan process Identify valued assets Identify existing controls	BRPC and BRMO	Media not reaching majority Workshops and forums could get abstracted by other agendas	Newspaper and website details Chair meetings with strict agenda and purpose	Engaged throughout process Feedback received Success of outcomes
Annually or as required	State Agencies, Service providers and other Stakeholders	All (1-5)	Emails Face to Face Meetings Telephone	Inform of BRM Plan process Identify assets at risk	BRPC and BRMO	Time constraints and travel Level of interest and	Select appropriate channel of communication Prepare materials and good planning	High engagement and participation levels

	(WP, WC, National Trust etc.)			Identify existing controls/programs		engagements in process		Feedback and engagement in program
Annually or as required	Office of Bushfire Risk Management	1 & 2	Email Face to face meetings	Compliance and governance Plan endorsement	CEO / Delegate or BRPC	Government funding Government priorities Identified non Compliances	Stay up to date with process improvements	Plan endorsed
Bi-annually and as required	Dept of Fire and Emergency Services (DFES) – District/Regional Office	1 – 3 & 5	Email Face to face meetings Telephone	UCL/UMR planned works Identification of treatment strategies Identification of other planned works Sharing information Identifying funding opportunities	CEO / Delegate or BRPC	Time constraints Conflicting priorities Response obligations	Plan communications Share information	Other planned works identified Funding opportunities identified UCL/UMR treatments included on BRMS Implementation of the BRM Plan
Implementation of the BRM Plan								
Life of plan	Shire Donnybrook Balingup CEO, Senior Leadership Team and Staff	All (1-5)	Emails Meetings (Quarterly) Shire Website and Intranet	Informed, consulted, accountable or responsible. Review and input into Plan. Progress to plan	BRPC or Manager Development and Environmental Services	Time constraints Availability Lack of understanding	Careful planning and time management Clear purpose	Feedback, questions and level of support received

Timing	Stakeholder	Risk	Method	Purpose	Responsibility	Threat	Opportunity	Outcome
						Budget (for LG mitigation)	Clear communication and regular updates	
Life of Plan	Stakeholder group	All (1-5)	Emails Website Telephone	Informed, consulted, accountable or responsible. Review and input into Plan. Progress to plan	BRPC and BRMO	Availability Located out of local/district area Commitment lost	Well planned and executed sharing of information Negotiations conducted	Feedback and commitment received to implement agreed controls Highly engaged
Life of Plan	BFAC Meetings	All (1-5)	Meetings Face to Face (presentations)	Report on progress to plan Report issues/constraints	BRPC and BRMO	Poor communication from stakeholders and LG on completion of works	Collate data and report on success to plan Compliance to plan	Feedback received on works FCO's pleased with work to date
Review of the BRM Plan								
Yearly (Shire) **5 Yearly (Shire, DFES and OBRM)**	Shire Donnybrook Balingup CEO, Councillors and Staff OBRM, BRMO, BRMB, BRPC & LG Council	All (1-5)	Email Meetings	Review, Monitor and Reporting Endorse plan Compliance to plan and acceptance of risk	BRPC and BRMO	Poor reporting and recording of information Review not completed by BRMB and OBRM	BRPC & BRMO to record data and information appropriately Approved by BRMB and OBRM for LG	Feedback from Council received Work completed as a result of plan Reporting
Half Yearly	Shire Donnybrook Balingup	All (1-5)	Email	Report on actions and key performance indicators for BRM Plan process	BRPC	Objectives not clearly set out Key actions not identified	Discuss with Shire CEO Clear objectives set	Reporting and feedback from CEO on work completed

Quarterly and as required	Shire of Donnybrook Balingup Engineering, Works & Services	4, 5	Face to face meetings	Report on actions and status of BRM Plan Continuous improvement	BRPC	Time Availability Conflicting priorities	Plan Communication Discuss with Shire Leadership Team	Feedback on work completed Risk ratings reduced Improvements identified and implemented
Biannually and as required	DFES Regional / District Office	4, 5	Face to face meetings Email Telephone	Report on actions and status of BRMP Continuous improvement	BRPC and BRMO	Time Availability Conflicting priorities	Plan communications	Feedback on work completed Risk ratings reduced Improvements
Biannually	Dept of Biodiversity, Conservation and Attractions (DBCA) and Forest Products Commission (FPC)	1 – 3 & 5	Face to face Meetings Email Telephone	Identification of DPAW and FPC burn plans Confirming project objectives, seeking input into treatment plans and providing project updates Development of treatment options	BRPC and BRMO	Resource constraints could limit their ability to participate	Clarify misunderstandings and intentions of plan Provide undertakings re the release of confidential data Restrict release of information and document in plan	Level of engagement Treatment schedule in BRMS

2: Planning Area Map

Figure 3 Planning Area Map

Figure 3 Planning Area Map
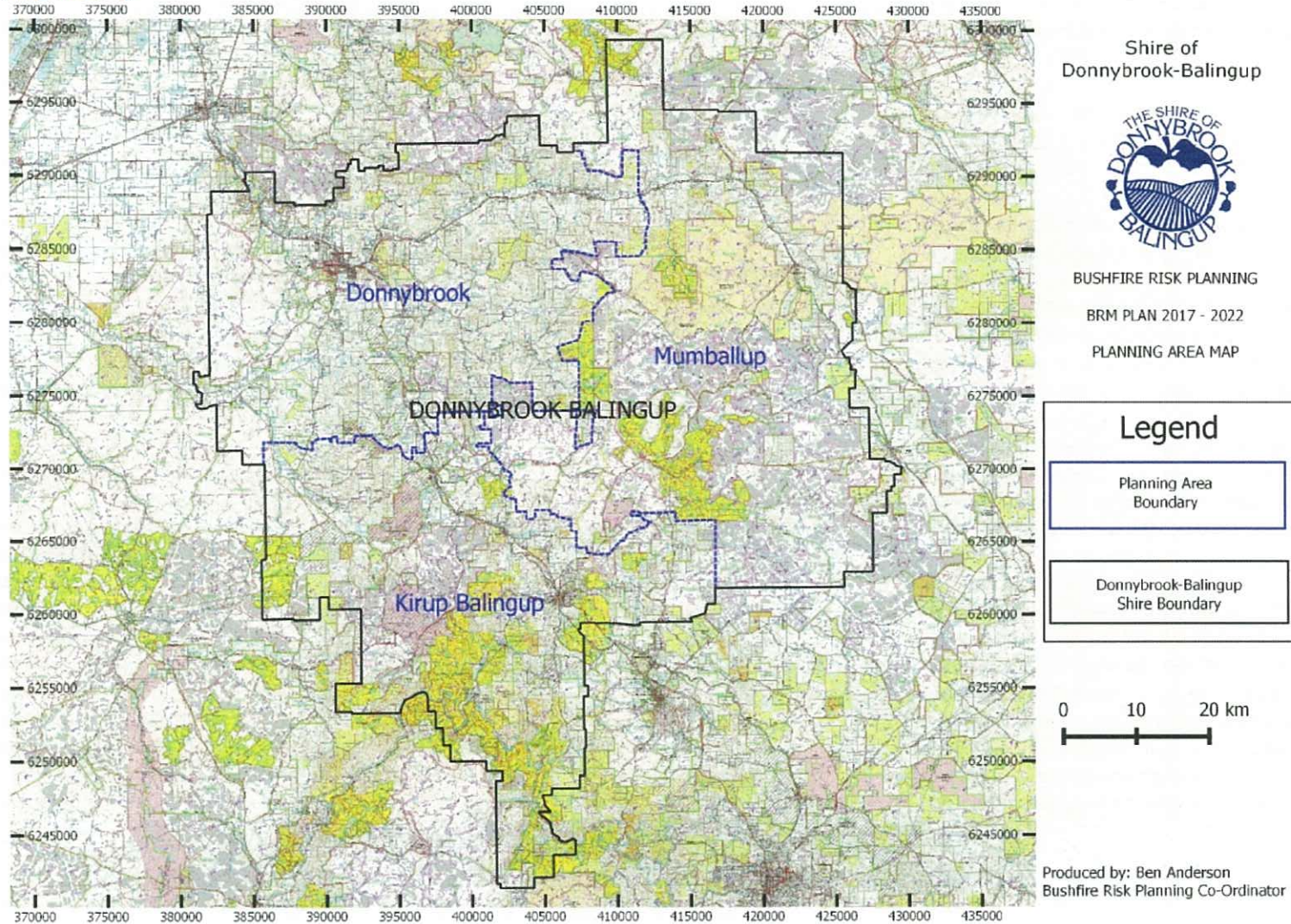
3: Local Government-Wide Controls, Multi-Agency Treatment Work Plan

	Control	Action or Activity Description	Lead Agency	Other Stakeholder(s)	Notes and Comments
01	Shire of Donnybrook Balingup, Local firebreak and hazard reduction laws (*Bush Fires act 1954*)	Annual Firebreak and Fuel Reduction Notice	Local Government	FCO's, brigades and land owners	Local law established to ensure land owners understand and comply to firebreak specifications as well as appropriately reducing fuel load and risk on their properties. Notice reviewed annually. Rangers inspect compliance to the notice and fines apply if non-compliant.
02	Shire of Donnybrook Balingup Prohibited and Restricted Burning Times (*Bush Fires act 1954*)	Annual Firebreak and Fuel Reduction Notice	Local Government	Chief FCO, Rangers and the public.	Prohibited and restricted burn periods are designed to reduce the risk during the Bush Fire Season. Notice reviewed annually and dates can be subject to change as required by the Shire.
03	Shire of Donnybrook Balingup mitigation works	The Shire's Parks and Gardens team has annual works programs to reduce fuel load and remove hazards.	Local Government	Public (reporting hazards and concern of risk) The Shire's Rangers	Tracked through the Shire's Parks & Gardens Department, team targets work on Town sites with highest population and/or as identified by the BRM Plan process. Work includes, slashing, spraying, mulching, pruning and other mechanical treatments.
04	DFES UCL/UMR land management	Preparedness, mitigation work conducted on lands owned by DoL and managed by DFES under a MOU	DFES (Lower South West office)	DBCA, LG, Local brigades	Annual budgeting has been completed to include mitigating risk on UCL/UMR. Lowers South West BRMO's have these plans included in their scope of work.
05	Shire of Donnybrook Balingup, Burn Program (annual indicative plans)	Local Government has annual burn plans for Shire owned or vested reserves.	Local Government	DFES, DBCA, Local brigades, Public	The Senior Ranger of the Shire is tasked with Bushfire Mitigation on Shire reserves. Annual burn plans are available. The BRM Plan will now prioritise the reserves for hazard reduction burns. BRMS will be recording information.
06	Department of Biodiversity, Conservation and Attractions Master Burn Plans	DBCA have a 6 season burn program that is published on their website. Yearly plans are available.	DBCA	Local brigades, DFES, LG	The plans can be accessed via their website, by sharing shape files (GIS) and are communicated at Local BFAC, ROAC and other various meetings.
07	Department of Biodiversity, Conservation and Attractions	DBCA conduct mulching and other mechanical treatments to reduce fuel load or provide fire access.	DBCA	DFES, LG	No formal plan exists however, works are completed as required, upon request or when identified.

	Control	Action or Activity Description	Lead Agency	Other Stakeholder(s)	Notes and Comments
08	Water Corporation Bushfire Risk Management Program	Bushfire Risk Management Plan. A Bushfire Risk Management Project is under way for the Water Corp.	Water Corporation	DFES, LG	A plan is currently being developed. High risk areas are identified and treatments planned then completed. Treatments and risk assessments are available through Water Corp BRMP department. Some high-risk areas have been identified in the Shire to date.
09	Western Power annual asset inspection and vegetation management program	Western Power Bushfire Plan	Western Power	DFES, LG, DBCA	Annual vegetation management and asset inspections are completed to ensure risk is managed. Full asset inspections are completed every 4 years.
10	Land sub-division & building (WAPC)	Requirement for estate, sub-division, and other Fire Management Plans	Local Government	Local Brigades, contractors and FCO's	Land developers are required to implement a Fire Management Plan to ensure risk is managed and other controls implemented and monitored.
11	Planning in Bushfire Prone Areas	Planning in bushfire prone areas. E.g. State Planning Policy 3.7 and standards.	WAPC	LG, DFES, DBCA, land owners	Foundation for land use planning. Directs how land use should address bushfire risk management in WA. It aims to preserve life and reduce impact on property and infrastructure. The Shire aligns its policy and standards with SPP 3.7. BAL assessments are required.
12	Pine Plantation Fire Management Plans	The Forest Product Commission (FPC) has implemented fire management plans for plantation.	FPC	DBCA, LG, DFES	Minimum requirements and controls have been committed to within the Plan.
13	State-wide arson prevention programs	Education and awareness campaigns exist across the state for arson.	WA Police	DFES, LG	Participation as required. The Shire participates in campaigns for arson prevention.

	Control	Action or Activity Description	Lead Agency	Other Stakeholder(s)	Notes and Comments
14	Bushfire Ready Groups and street meets	Public preparedness and education campaign	DFES	LG, local brigades, DFES	Bushfire ready facilitators are within the Shire. Working together with DFES and LG community engagement teams to better prepare the community for bushfire events. Street meets and phone trees have been implemented as a result as well as safe winter burn demonstrations and workshops.