

Shire of Wandering

BUSHFIRE RISK MANAGEMENT PLAN

2021-2026

*Office of Bushfire Risk Management Bushfire Risk Management (BRM
Plan) reviewed XX Month 20XX*

Local Government Council BRM Plan endorsement XX Month 20XX

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Document Control

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Document Endorsements

The Shire of Wandering Council endorses that the Bushfire Risk Management Plan (BRM Plan) has been reviewed and assessed by the Office of Bushfire Risk Management as consistent with the standard for bushfire risk management planning in Western Australia, the Guidelines for Preparing a Bushfire Risk Management Plan. The Shire of Wandering 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 approval of the BRM Plan by Shire of Wandering Council satisfies their endorsement obligations under State Hazard Plan Fire.

Local Government	Representative	Signature	Date
Shire of Wandering	CEO		20/05/2021

Version	Date	Author	Section
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Local Government Disclaimer

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

¹ *Guidelines for Preparing a Bushfire Risk Management Plan, November 2015, Page 79*

1. Introduction

1.1. Background

Under the State Hazard Plan Fire an integrated Bushfire Risk Management (BRM) Plan is to be developed for local government areas with significant bushfire risk. This BRM Plan has been prepared for the Shire of Wandering in accordance with the requirements of the Guidelines for Preparing a Bushfire Risk Management Plan (the Guidelines) from the Office of Bushfire Risk Management (OBRM) within the Department of Fire and Emergency Services (DFES). The risk management processes used to develop this BRM Plan are aligned to the key principles of AS/NZ ISO 31000:2009 Risk management –Principles and Guidelines and those described in the National Emergency Risk Assessment Guidelines. This approach is consistent with State Emergency Management (SEM) Policy and SEM Prevention and Mitigation Procedure 1.

This BRM Plan is a strategic document that facilitates a coordinated approach towards the identification, assessment and treatment of assets exposed to bushfire risk. 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 and Treatment Schedule to ensure treatment strategies are collaborative and efficient, regardless of land tenure.

1.2. Aim and Objectives

The aim of a BRM Plan is to effectively manage bushfire risk in order to protect people, assets and other things of local value in the Shire of Wandering. The objectives of this 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.

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 and Policy

- Aboriginal Heritage Act 1972
- Biodiversity Conservation Act 2016
- Building Act 2011
- Bush Fires Act 1954
- Conservation and Land Management Act 1984
- Country Areas Water Supply Act 1947
- Emergency Management Act 2005
- Environmental Protection Act 1986
- Environmental Protection and Biodiversity Conservation Act 1999 (Cth)
- Fire Brigades Act 1942
- Fire and Emergency Service Act 1998
- Metropolitan Water Supply, Sewerage and Drainage Act 1909
- Bush Fires Regulations 1954
- Emergency Management Regulations 2006
- Planning and Development (Local Planning Scheme) Regulations 2015
- SEM Plan (State Emergency Management Committee (SEMC) 2019)
- SEM Policy (SEMC 2019)
- SEM Prevention and Mitigation Procedure 1 (SEMC 2019)
- State Hazard Plan Fire (SEMC 2019)
- State Planning Policy 3.4: Natural Hazards and Disasters (Western Australian Planning Commission (WAPC) 2006)
- State Planning Policy 3.7: Planning in Bushfire Prone Areas (WAPC 2015, as amended)

1.3.2 Other Related Documents

- A Capability Roadmap: Enhancing Emergency Management in Australia 2016 (Australasian Fire and Emergency Services Authorities Council 2016)
- A Guide to Constructing and Maintaining Fire-Breaks (DFES 2018)
- AS 3959:2009 Construction of Buildings in Bushfire-Prone Areas (Standards Australia 2009)
- AS/NZ ISO 31000:2009 Risk Management – Principles and Guidelines (Standards Australia 2009)
- Australian Disaster Resilience Handbook 10: National Emergency Risk Assessment Guidelines (Australian Institute for Disaster Resilience 2015)
- Guidelines for Preparing a Bushfire Risk Management Plan 2020 (DFES 2020)
- Bushfire Risk Management Planning Handbook (DFES 2018)
- Code of Practice for Timber Plantations in Western Australia (Forest Products Commission (FPC) 2006)
- Guidelines for Planning in Bushfire Prone Areas (WAPC 2017)
- Guidelines for Plantation Fire Protection (DFES 2011)
- National Disaster Risk Reduction Framework (Department of Home Affairs 2018)
- National Strategy for Disaster Resilience (Attorney-General’s Department 2011)
- Public Service Circular No. 88 Use of Herbicides in Water Catchment Areas (Department of Health 2007)
- Western Australian Emergency Risk Management Guide (SEMC 2015)

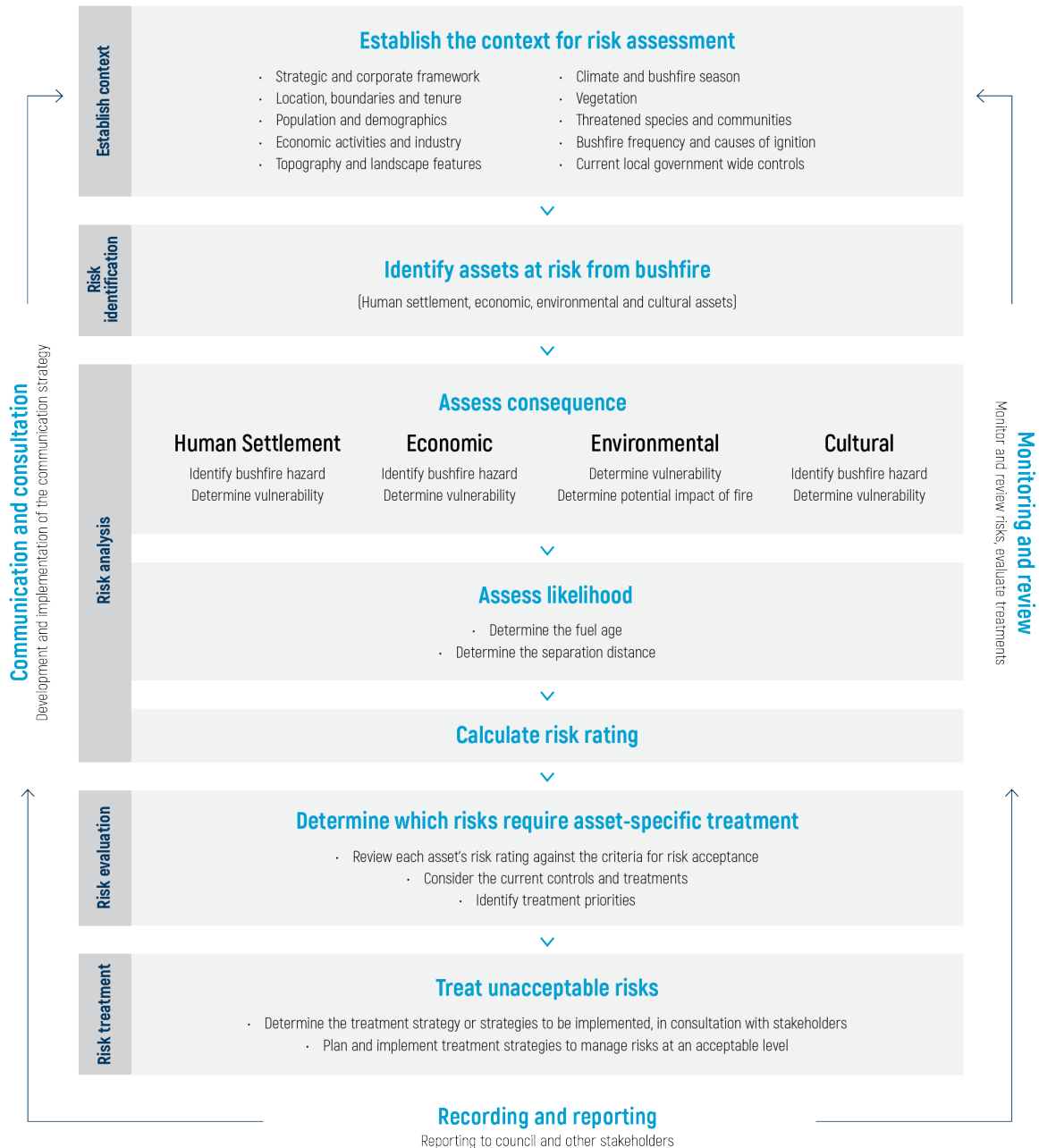
1.3.3 Shire of Wandering references

- Landscapes and soils of the Narrogin Districts
- Local Emergency Management Arrangement – Shires of Pingelly and Wandering
- The Shire of Wandering Annual Fire Break Notice
- The Shire of Wandering Bridge Inventory (Main Roads 2019)
- The Shire of Wandering Bushfire Prone Mapping
- The Shire of Wandering Corporate Business Plan 2019 – 2023
- The Shire of Wandering Local Planning Strategy
- The Shire of Wandering Long Term Financial Plan 2019 - 2029
- The Shire of Wandering Strategic Community Plan 2018-2028
- Western Australia Government Heritage Listed sites – Heritage Council

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/NZ ISO 31000:2009 Risk Management – Principles and Guidelines*. This process is outlined in Figure 1.

Figure 1 – An overview of the risk management process²



¹ Adapted from: AS/NZS ISO 31000:2009, with permission from SAI Global under licence number 1510-c081.

2.1. Roles and Responsibilities

The roles and responsibilities of the key stakeholders involved in the development of the BRM Plan are outlined in Table 1.

Table 1 – Roles and Responsibilities

Stakeholder Name*	Roles and Responsibilities
Local Government	<ul style="list-style-type: none">• Custodian of the Bushfire Risk Management Plan (BRM Plan)• Coordinate the development and ongoing review of the integrated BRM Plan.• Undertake treatments on lands owned or managed by them.• Submit the draft BRM Plan to DFES's Office of Bushfire Risk Management (OBRM) for review and endorsement.• Submission of the OBRM endorsed BRM Plan to council for their approval and adoption.
Department of Fire and Emergency Services	<ul style="list-style-type: none">• Participate in and contribute to the development and implementation of BRM Plans.• Support to local government through expert knowledge and advice in relation to the identification, prevention and treatment of bushfire risk.• Facilitate local government engagement with state and federal government agencies in the local planning process.• Undertake treatments on Unmanaged Reserves and Unallocated Crown Land within gazetted town site boundaries.• In accordance with Memorandums of Understanding and other agreements, implement treatment strategies for other land owners.• Review BRM Plans for consistency with the Guidelines prior to final approval by council.• Administer and coordinate the Mitigation Activity Fund Grants Program.
Department of Biodiversity, Conservation and Attractions	<ul style="list-style-type: none">• Participate in and contribute to the development and implementation of BRM Plans.• Provide advice for the identification of environmental assets that are vulnerable to fire and planning appropriate treatment strategies for their protection.• Undertake treatments on department managed land, and Unmanaged Reserves and Unallocated Crown Land outside gazetted town site boundaries and land in which they have an agreement for.

Stakeholder Name*	Roles and Responsibilities
Forest Products Commission	<ul style="list-style-type: none"> • Participate in and contribute to the development and implementation of BRM Plans. • Provide information about their assets and current risk treatment programs. • Undertake treatments on lands owned or managed by them.
Department of Planning, Lands and Heritage	<ul style="list-style-type: none"> • Provide advice for the identification of their assets and infrastructure, specifically Aboriginal and European heritage.
Other State and Federal Government Agencies and Public Utilities	<ul style="list-style-type: none"> • Provide information about their assets and current risk treatment programs. • Participate in and contribute to the development and implementation of BRM Plans. • Undertake treatments on lands they manage.
Corporations and Private Land Owners	<ul style="list-style-type: none"> • Provide information about their assets and current risk treatment programs.

2.2. Communication and Consultation

Communication and consultation throughout the risk management process is fundamental to the development, implementation and review of the BRM Plan. To ensure appropriate and effective communication occurred with relevant stakeholders at each stage of the BRM planning process, a *Communication Strategy* was prepared (Appendix A).

3. Establishing the Context

3.1. Description of the Local Government and Community Context

3.1.1 Strategic and Corporate Framework

The Strategic Community Plan 2018-2028 is a long-term planning document that sets out the Shire of Wandering's community vision and aspirations for the future. The Strategic Community Plan 2018-2028 is the parent document, which is used by community members, external members and the Shire of Wandering to enable all groups to collaborate, achieve, decide and fund future projects and service delivery initiatives. The Strategic Community Plan is part of the Integrated Planning and Reporting (IPR) Framework required by all local governments in Western Australia and sets a 10-year target².

The Shire of Wandering's values and mission:

"Wandering is a community of responsible, resilient and adaptable residents thriving in our scenic, economically diverse environment."³

Our values lie at the heart of the community's intentions for the Shire's future.

- Adaptability
- Perseverance
- Accountability
- Diligence.

Upon review of the Strategic Community Plan and Corporate Plan, the following key result areas, activities and objectives are identified as having relevance to the objectives of this BRM Plan:

- Facilitating and supporting Emergency Services Planning (The BRM Plan will help improve the Shire's planning for bushfires.)
- Community Engagement (The BRM Plan can highlight areas that which could be targeted for bushfire education programmes.)
- Responding to emergency in a coordinated and resourced approached

The BRM Plan will assist by improving the community's awareness of bushfire risk and treatment activities planned in their area and the identification of treatment priorities for the Shire's forward planning and budgeting for treatment activities within the BRM Plan area. The BRM Plan can help improve the Shire's planning for bushfires which will be critical in the face of decreasing volunteer fire fighters' resources.

The size of the Shire's structure, and available funding, at this time does not support a role specifically allocated to Emergency Management. It has therefore been determined that the responsibility for

² [Shire of Wandering Strategic Community Plan](#)

³ [Shire of Wandering Strategic Community Plan](#)

Emergency Management, including activities associated with the BRM Plan, will sit with the Chief Executive Officer with tasks delegated as appropriate.

The Shire's Local Emergency Management Committee (LEMC) and Bushfire Advisory Committee (BFAC) are identified as key stakeholders in the development, implementation and review of the BRM Plan. The respective input and advice from each Committee is essential to the bushfire risk management process and will provide field and community experience. Consultation around this BRM Plan has been done via local LEMC meetings.

3.1.2 Location, Boundaries and Tenure

The Shire of Wandering is a small rural authority in the Central South region of the Wheatbelt of Western Australia. The Shire is situated in undulating broad acre farming country. The Shire is located 120km southeast from Perth and the Shire covers an area of 1955km².⁴

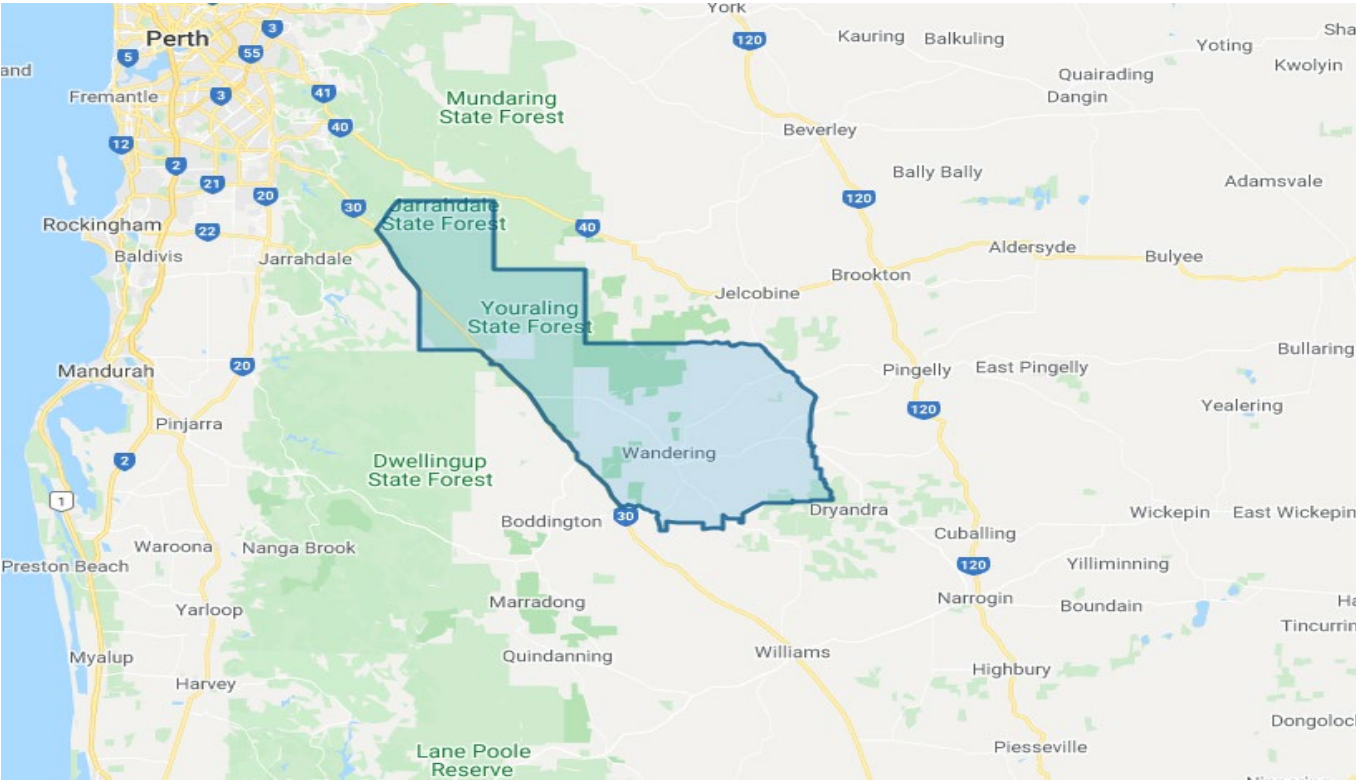


Figure 2: The location of the Shire Wandering within the State of WA ⁵

The Shire of Wandering includes the localities of Mt Cooke, North Bannister, Bannister, Wandering, Dwarda, Codjatotine, Pumphreys Bridge and Hastings. Mt Cooke location falls solely within DBCA managed land. North Bannister has some integration of private land and DBCA managed land.

⁴ Source: Shire of Wandering Strategic Community Plan.

⁵ Source: 2020 Map data Services

Adjoining local governments include the City of Armadale and the Shires of Pingelly, Brookton, Beverley, Serpentine-Jarrahdale, Cuballing, Boddington, Murray and Williams.

Fires may impact on multiple tenures and move through various land uses. An overview of the Shire’s land tenure and management is shown in *Table 2*. The Shire is made up of a mosaic of land tenures. The largest type of tenure within the Shire of Wandering is land vested to the Department of Biodiversity, Conservation and Attractions, with 47% of the total land area. 50.8% of land tenure is private ownership. Approximately 35% of the Shire of Wandering is arable land. ⁶

Table 2 – Overview of Land Tenure and Management within the Shire of Wandering

Land Manager/Agency	Percent of Local Government Area
Local Government	0.2%
Private	50.8%
Department of Biodiversity, Conservation and Attractions	47%
Aboriginal Planning Authority	2%
Total	100%

Source: *Department of Fire and Emergency - Services Geographical Information Systems Section using SLIP data*

3.1.3 Population and Demographics

According to the Australian Bureau of Statistics 2019 Census (estimations), the population of the Shire of Wandering was 424 with 210 (49.5%) being female and 214 (50.5%) being male. In comparison, the WA average in 2016 was 50% male and 50% female.⁷

The statistics show 54.4%⁸ of the population are aged between 20 – 64-years-old, which is the key age group for recruitment and retention of emergency services volunteers. The low population numbers overall mean that there is a limited availability of bushfire brigade volunteers, with pressure further increased when considering the broad competing priorities associated with smaller rural communities. This is a key consideration for the Shire. However, during past fire events there has a strong turnout of spontaneous volunteers during fire events, with many local residents stepping forward to support their community. There may be an opportunity, to engage with this sector of the community to potentially:

- *increase the registration of volunteers or farmer response units prior to an event;*
- *deliver training or education programs;*

⁶ *Department of Primary Industry and Regional Development*

⁷ *Source: ABS Census Wandering*

⁸ *Source: ABS Census Wandering*

- *identify volunteer organisations that spontaneous volunteers could be referred to during an emergency.*

The demographics of the Shire of Wandering present a range of challenges for fire management. Forty three percent (43.2%)⁹ of the population are in vulnerable groups (under 14 or over 65) which require special consideration when planning around prevention, preparedness, response and recovery.

The number of residents within the 0 – 14 age group indicates that delivery of a school-based program may be of benefit for early engagement and increasing understanding of home bushfire awareness. Children can influence behaviour changes within families and increasing awareness within the school environment via DFES' current school-aged education programs could result in increased awareness throughout the community. There are many other established community networks and groups that could be identified and engaged in targeted bushfire risk and preparedness education programs, using for example, DFES' 5-minute Fire Chat resource.

The over 65 age group accounts for 25.5%¹⁰ of the population. Elderly people are considered a vulnerable demographic in bushfire management, as they may have less capacity to prepare and defend property or protect themselves during a fire event and may have additional or special needs during evacuation and relocation. Because of this, there is need for increased planning for this group to ensure that they are adequately considered in bushfire management planning, communications during fire events, community education delivery and consultation when planning mitigation works. There is a need to ensure that there is tailored advice provided to this group during pre-fire season preparation, as well as during bushfire events.

The continued trend of an aging population is likely to impact the capability and availability of volunteers to respond to bushfires. The Shire will need to reconsider current methods for the attraction and retention of volunteers, with a particular focus on encouraging younger members of the community to volunteer with brigades, as well as ways to retain aging volunteers through the promotion of other roles or volunteer organisations that are more suitable to their skills and capabilities.

3.1.4 Economic Activities and Industry

The economy of the Shire of Wandering is based around the agricultural industry with cereal crops (oats, wheat, barley) pulse crops (lupins, chickpeas, faba beans) oil seed (canola), sheep (wool & meat), cattle (meat), pigs and vineyards. Other commercial industries include wineries, timber milling and hay exporting.¹¹

Agriculture and associated fields account 42.1% for most of the employment in the shire. This is reflected in *Table 3*. The Agricultural industry is known to be impacted by fire events through both physical loss of crops and post fire impacts such as soil erosion, this is a significant consideration for

⁹ Source: ABS Census Wandering

¹⁰ Source: ABS Census Wandering

¹¹ Source: Shire of Wandering Information Sheet

the Shire’s fire management planning. The Shires Fire Break notice contains specific requirements related to agricultural operations.

Mining operations located in adjacent shires also contribute to employment (15.8%) within the Shire.

Table 3 – Industry of Employment within the Shire of Wandering (Years 2018-2019) ¹²

Agriculture, forestry and fishing (%)	39.7	42.1
Mining (%)	15.6	15.8
Manufacturing (%)	3.4	1.9
Construction (%)	4.6	2.9
Wholesale trade (%)	--	1.4
Retail trade (%)	3.8	2.4
Accommodation and food services (%)	3	2.9
Transport, postal and warehousing (%)	4.2	1.9
Rental, hiring and real estate services (%)	--	1.4
Professional, scientific and technical services (%)	--	2.4
Administrative and support services (%)	1.3	4.8
Public administration and safety (%)	8	7.2
Education and training (%)	6.8	4.8
Health care and social assistance (%)	5.9	4.3
Arts and recreation services (%)	--	1.4
Other services (%)	2.5	1.9
Industry of Employment - Inadequately described or not stated (%)	--	3.3
Total persons employed (no.)	237	209

The Shire is also a recreational vehicle (RV) friendly town with one ‘free camping’ site located at Pumphreys Bridge on the Wandering-Narrogin Road. Tourists and transient populations can be vulnerable to bushfire risk, particularly in the summer months when increased numbers of visitors take advantage of the many locations perfect for hiking, camping, picnics, bird watching and viewing the abundant wildflowers.

3.2. Description of the Environment and Bushfire Context

3.2.1 Topography and Landscape Features

The agricultural areas of Western Australia are very diverse, with a wide range of landscapes, soils and landscape features. The Shire of Wandering’s landscape features are detailed in the Department of Agriculture and Food (WA) series ‘*Landscape and soils of the Narrogin District*’ (2010).

¹² Source: ABS Stat 2020

The western portion of the Shire is located on the Darling Range zone (DRZ), a broad uplifted plain of and its eroded margins. This has distinct NW/SE patterns in ridges and valleys and has been cut by a few large waterways from further east. Yellow brown gravely soils and sheet ironstone are common.¹³

The Eastern portion of the Shire is in the Rejuvenated Drainage Zone (RDZ), which has an active drainage system that joins the Avon, Blackwood and Murray (Hotham) rivers. The landscape is more dissected, often with variable soils formed from dissected laterites and underlying igneous rock.¹⁴

Wandering Town site

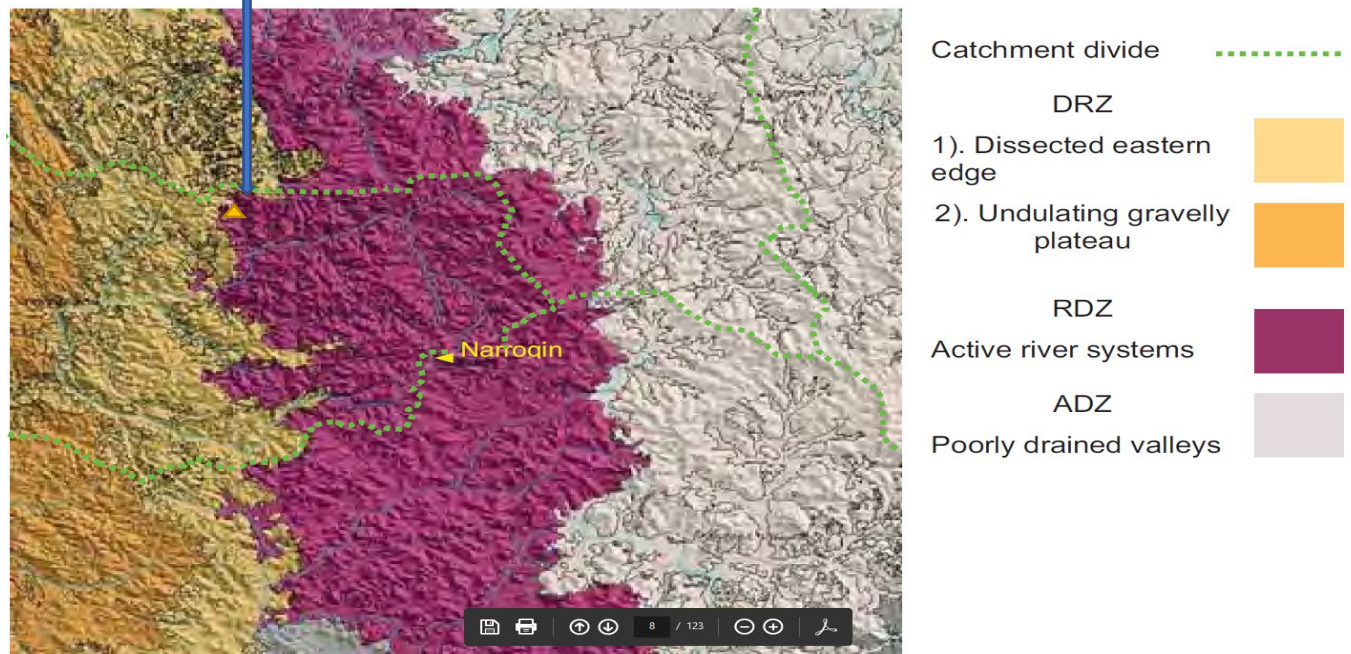


Figure 3: Landscape categories within the Shire of Wandering¹⁵

The waterways in the Shire are often present challenges for access and crossing. Fires often spot across the watercourses, where firefighters cannot easily cross and may have to travel some distance to be able to get to the other side. This can often result in a significant delay in firefighting response allowing fires to be able to grow quickly with limited suppression under the influence of significant slopes.

The western portion of the district is located on the Darling Plateau. Valleys in the western part of the shire can

- impact rates of spread (ROS)
- can make prediction difficult as the valleys channel winds and create localised conditions (eg fire moving against prevailing wind conditions)
- spotting ridge to ridge

¹³ Source: *Landscape and soils of the Narrogin District, Dept of Agriculture and Food WA, 2010, Bulletin 4807*

¹⁴ Source: *Landscape and soils of the Narrogin District, Dept of Agriculture and Food WA, 2010, Bulletin 4807*

¹⁵ Source: *Landscape and soils of the Narrogin District, Dept of Agriculture and Food WA, 2010, Bulletin 4807*

The eastern part of the shire is flatter with more agricultural land and fires here tend to be more wind driven.

There is one major water way in the Shire these are shown in Figure 4. A major challenge for the Shire is access and crossing waterways during fire events, water ways can pose a challenge to fire fighting vehicles moving through areas of the landscape. This can restrict movement with limited crossovers accessible. This is a significant consideration and limitation when responding to fires but also when planning bushfire mitigation activities particularly in the context of risk management.

There are 13 bridges, throughout the Shire. These are located on major traffic routes, critical to tourism and movement of agricultural produce. These bridges are also vital for the evacuation of communities in emergencies and the movement of firefighting vehicles. The local and regional economy can be adversely affected, and community safety impacted if bridges are damaged/destroyed by fire. The BRM planning process has identified the bridges, particularly timber bridges, as a significant risk for the Shire and they will be a priority for risk treatment.

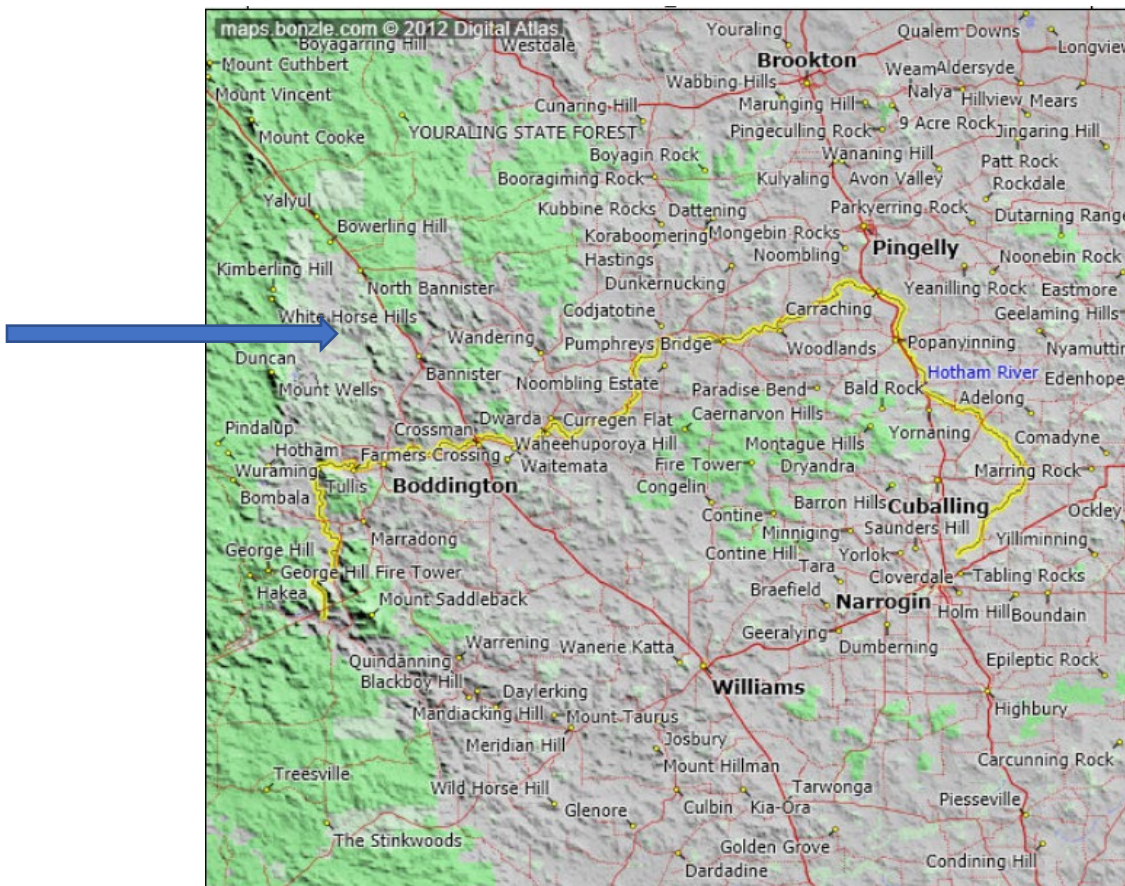




Figure 4: Tributaries of Hotham River¹⁶

¹⁶ Source: Bonzle Digital Atlas of Australia

KEY	
	Hotham River
	Major Roads
Williams	Regional Towns
Contine	Local localities

The Wandering town site is marked on the above map (Figure 4).

3.2.2 Climate and Bushfire Season

Wandering has a Mediterranean climate with hot dry summers and cool, damp winters. In winter, it is one of the coldest towns in Western Australia, not infrequently recording temperatures below 0 °C.¹⁷ The primary school's motto, "Cold Temperatures Warm Hearts", is testament to this.¹⁸

The following weather statistics were obtained from the Bureau of Meteorology (BOM) Wandering Station (Station ID 010917).

Bushfire threat is typically associated with very hot (above average temperatures), dry (less than 20% humidity) and windy (above 12 – 15 Km per hour) conditions. *Table 4* shows that the Shire of Wandering can experience these thresholds throughout the year particularly during November to March inclusive. The wettest months are May through September when about 70% of the annual rainfall occurs. Weather is the primary influencer on fire activity¹⁹ and therefore needs to be a significant consideration when planning both mitigation and response activities. The elevated risk to the Shire of Wandering is usually December to February each year.

Table 4 – Climatic conditions within the Shire of Wandering²⁰

Statistics	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	Years
Temperature														
Mean maximum temperature (°C)	32.1	31.7	28.9	24.6	20.0	17.1	15.8	16.5	18.4	22.5	27.4	30.6	23.8	22 1998-2021
Mean minimum temperature (°C)	14.2	14.7	12.7	9.5	6.1	4.7	4.1	4.1	4.7	6.4	9.5	12.1	8.6	22 1998-2021
Rainfall														
Mean rainfall (mm)	15.3	17.3	16.8	28.4	55.6	81.2	93.2	93.4	57.2	27.4	20.6	17.2	505.3	19 1998-2021
Decile 5 (median) rainfall (mm)	6.1	3.0	10.0	20.4	60.3	75.8	95.5	97.2	51.4	24.0	16.1	5.6	513.2	22 1998-2021
Mean number of days of rain ≥ 1 mm	1.9	1.6	2.5	4.1	6.8	9.1	11.2	11.2	9.4	4.7	3.1	2.2	67.8	22 1998-2021

¹⁷ Source: *Climate statistics for Wandering Comparison*". Bureau of Meteorology. Retrieved 12 July 2014.

¹⁸ Source: Shire of Wandering. "[Wandering Primary School](#)". Retrieved 16 October 2006.

¹⁹ *The Burning Issue: Climate Change and the Australian Bushfire Threat* www.climatecouncil.org.au

²⁰ Source: Bureau of Meteorology Wandering Station

Table 5: Average Maximum Temperature (Dec 1901 to Aug 2003)²¹

Location: 010917 WANDERING

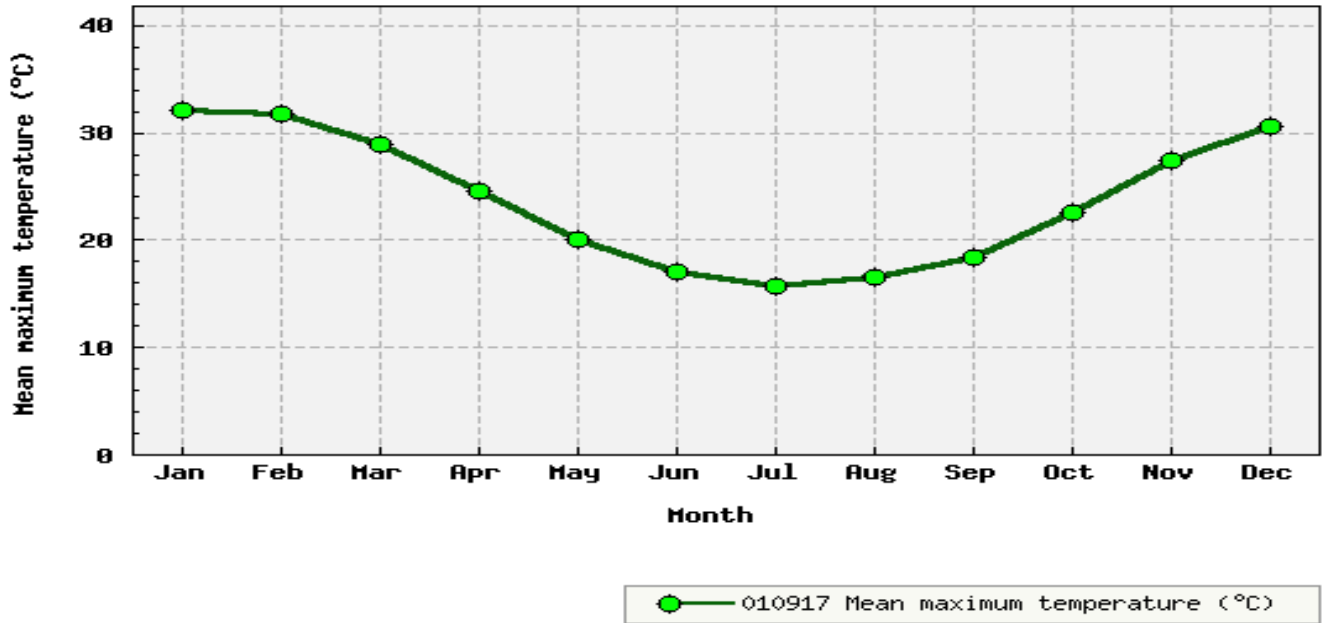
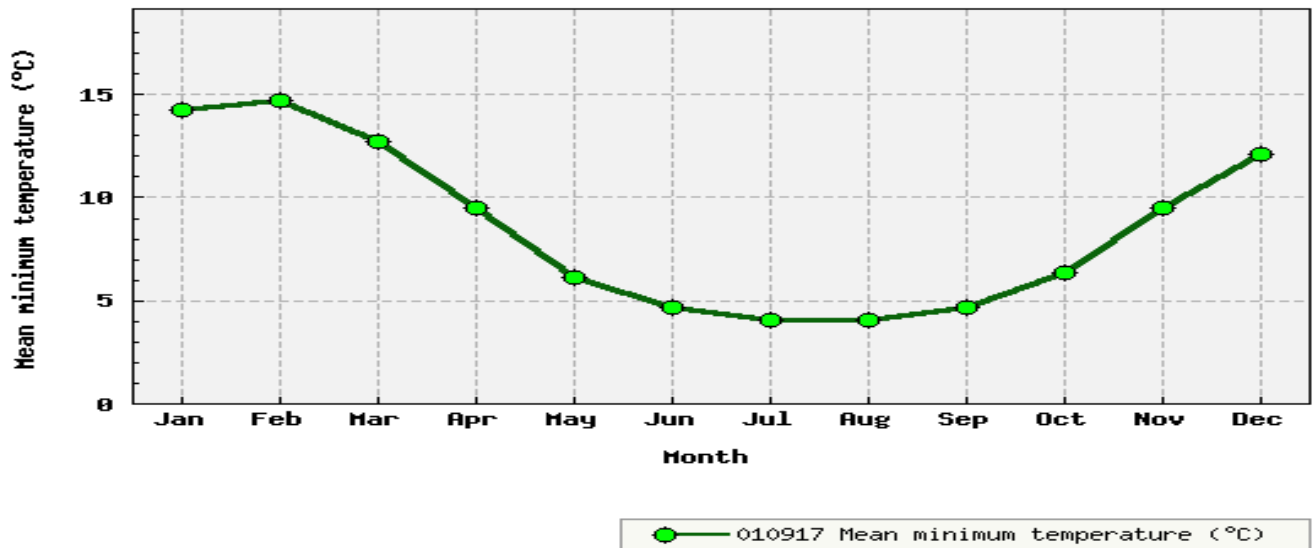


Table 6: Average Minimum Temperature (Dec 1901 to Aug 2003)²²

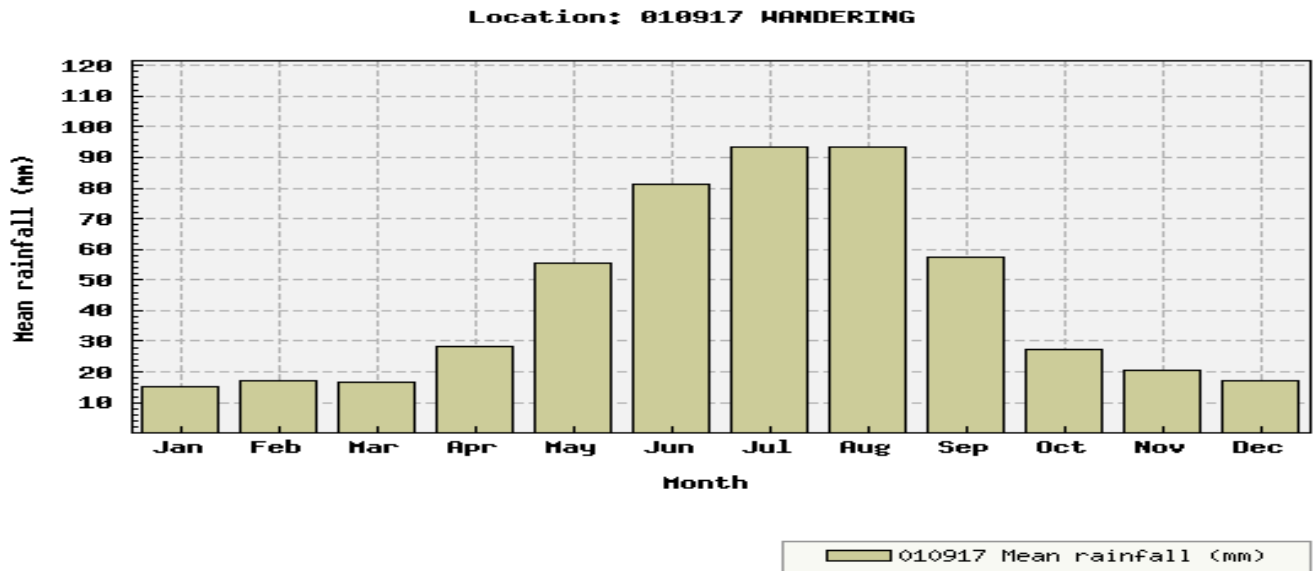
Location: 010917 WANDERING



²¹ Source: Bureau of Meteorology Wandering Station

²² Source: Bureau of Meteorology Wandering Station

Table 7: Average Rainfall (Dec 1998 to Aug 2020) Wandering Bom Station ²³



The following diagrams look at prevailing winds in the context of the hotter months corresponding with the peak of the fire season – December through February. These wind roses also indicate winds predominantly from the South-East. The prevailing winds comes from the South-East in the mid-afternoon. This is well known by the fire response personnel and subsequently fire management strategies are developed with this in mind.

²³ Source: Bureau of Meteorology Wandering Station

Rose of Wind direction versus Wind speed in km/h (14 Dec 1998 to 11 Aug 2020)

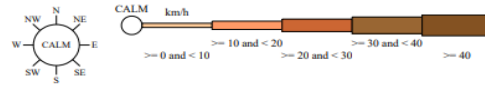
Custom times selected, refer to attached note for details

WANDERING

Site No: 010917 • Opened Dec 1998 • Still Open • Latitude: -32.6722° • Longitude: 116.6706° • Elevation 275m

An asterisk (*) indicates that calm is less than 0.5%.

Other important info about this analysis is available in the accompanying notes.



9 am
7786 Total Observations

Calm 6%

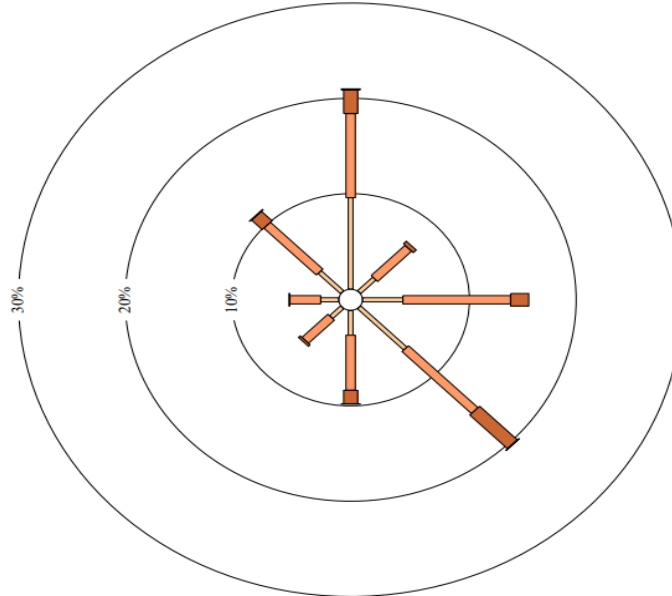


Figure 5: Wind rose reflecting predominant winds and wind speeds over the period Dec 1998 – Aug 2020 ²⁴

The following diagrams look at prevailing winds in the context of the hotter months corresponding with the peak of the fire season – December through March. These wind roses also indicate winds predominantly from the South-East. The prevailing winds comes from the South-East in the mid-afternoon. This is well known by the fire response personnel and subsequently fire management strategies are developed with this in mind.

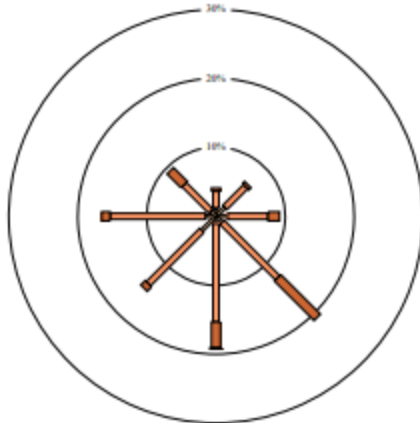
²⁴ Source: Bureau of Meteorology Wandering Station

WANDERING
 Sta No: 210817 - Opened Dec 1988 - 348 Open - Latitude: 32.6722° - Longitude: 116.6750° - Elevation: 275m
 An asterisk (*) indicates that calm is less than 0.5%.
 Other important info about this analysis is available in the accompanying notes.



3 pm Dec
 667 Total Observations

Calm *



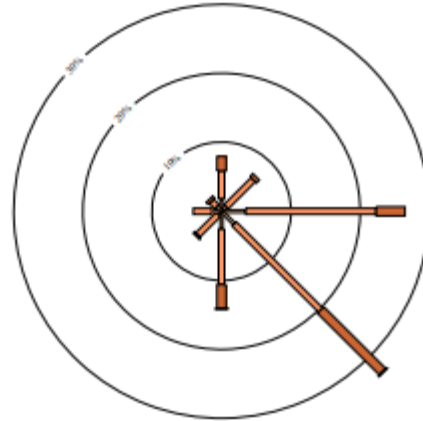
December Average

WANDERING
 Sta No: 210817 - Opened Dec 1988 - 348 Open - Latitude: 32.6722° - Longitude: 116.6750° - Elevation: 275m
 An asterisk (*) indicates that calm is less than 0.5%.
 Other important info about this analysis is available in the accompanying notes.



9 am Jan
 675 Total Observations

Calm *



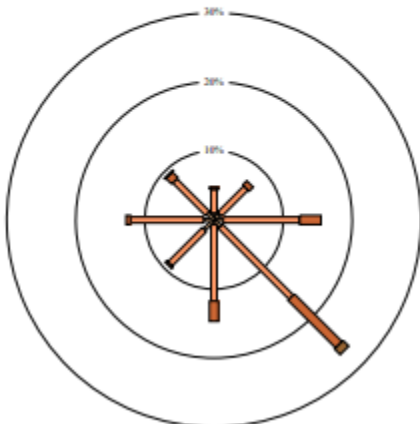
January Average

WANDERING
 Sta No: 210817 - Opened Dec 1988 - 348 Open - Latitude: 32.6722° - Longitude: 116.6750° - Elevation: 275m
 An asterisk (*) indicates that calm is less than 0.5%.
 Other important info about this analysis is available in the accompanying notes.



3 pm Feb
 615 Total Observations

Calm *



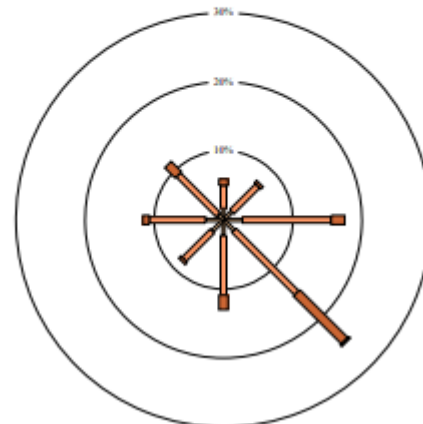
February Average

WANDERING
 Sta No: 210817 - Opened Dec 1988 - 348 Open - Latitude: 32.6722° - Longitude: 116.6750° - Elevation: 275m
 An asterisk (*) indicates that calm is less than 0.5%.
 Other important info about this analysis is available in the accompanying notes.



3 pm Mar
 664 Total Observations

Calm *



March Average

Figure 6: Wind roses reflecting the annual predominant winds and wind speeds for the years 1998 to Nov 2021 taken from the Bureau of Meteorology Wandering Station.²⁵

²⁵ Source: Bureau of Meteorology Wandering Station

The Forest Fire Danger Index (FFDI) is based on a combination of different weather conditions acknowledged to influence the risk of dangerous bushfire conditions in Australia, including temperature, rainfall, humidity and wind speed. In addition to the weather, bushfire events in Australia are also influenced by factors such as vegetation conditions, terrain and ignition sources. When a Fire Danger Index (FDI) reaches 50 the conditions are considered as severe; when conditions reach 75 the conditions are considered as extreme. The Forest Fire Danger Index and the Grass Fire Danger Index should be considered as indicative numbers only. This dataset provides observations-based information using a 67-year time period. It is intended for use in examining broad-scale features in fire weather conditions for regions throughout Australia. Where an FFDI of 50 and above is recorded between the months of November to February and is during the harvesting period, it can increase the ignition risk and making any fire severely difficult to suppress²⁶.

The Grassland Fire Danger Index (GFDI) describes the *rate of spread* of a grass fire (and therefore the difficulty of putting it out.) The index was developed in Australia and has been adapted for the Great Plains. It is based on a combination of the “greenness” of the grass (percentage cured), and various meteorological parameters. The higher the index, the faster a grass fire will spread. The weather parameters (listed in decreasing order of importance) are wind, wind gusts, relative humidity and temperature, however, the biggest single factor is curing. Curing is a measure of the percentage of dead material in grass, as moisture content reduces as grass cures and dries out. The curing value of green grass is 0, and completely brown grass is 100. To spread rapidly, there has to be fuel, and completely cured grass is an excellent fuel. Conversely, green grass does not burn easily, regardless of wind or relative humidity.²⁷ Harvest / vehicle movement bans are set using the GFDI.

The level of bushfire hazard for human settlement, economic and cultural assets is determined using a quantified bushfire hazard assessment model.²⁸ The model is based on the methodology set out in *AS3959-2009 Construction of buildings in bushfire prone areas* that is used to undertake a Bushfire Attack Level (BAL) assessment. The hazard assessment is used to measure the severity of an asset’s potential exposure to ember attack, radiant heat and direct flame contact. Criteria applied when undertaking the bushfire hazard assessment is as follows:²⁹

Application of Fire Danger Index (FDI) 80. - The fire danger index reflects the chance of a fire starting, its rate of spread, its intensity and the difficulty of its suppression, according to various combinations of air temperature, relative humidity, wind speed and both the long- and short-term drought effects. Inputs to hazard assessment calculation are reflective of FDI 80 (Grass Fire Danger Index 110) conditions, as per AS3959-2009. The higher the rating, the less chance of controlling a fire until weather conditions improve.

²⁶ <https://www.dfes.wa.gov.au/bushfire/prepare/>

²⁷ www.weather.gov

²⁸ *Guidelines for Preparing a Bushfire Risk Management Plan (2015)*

²⁹ *AS3959-2009 Construction of buildings in bushfire prone areas*

The Shire of Wandering is located within the Upper Great Southern Fire Weather District. Given the prevalence of agricultural holdings within the Shire of Wandering, the Grass Fire Danger Index is the model applied to determine the FDI.

From the FDI, predictions can be made regarding a fire's rate of spread, intensity and the potential for various suppression tactics to succeed. The FDI is the basis for determining the Fire Danger Rating, shown at figure 9, which is a scale developed to assist communities to better understand information about fire danger.³⁰

3.2.3 Vegetation

The Shire of Wandering has three prominent types of vegetation throughout the shire.

The northern part of the Shire is the Marradong system. This consists of mainly Jarrah, Marri and Wandoo forest. The trees in these forests have fine fibrous loose bark which easily ignites and can be carried by the winds over long distances as embers, starting spot fires and impacting assets ahead of the main fire front. Combined with the hilly topography on which it occurs these forest vegetation types can create very intense and fast-moving fires.

DBCA undertakes prescribed burns in these areas to help reduce the bushfire risks of this vegetation type.

The eastern part is mainly the Dryandra system which consists mainly Wandoo and Sheok woodlands. These woodlands tend to have a low open canopy with sparse shrubby understory. Fires in these areas can be slow moving due to the sparseness of ground fuels. This area is predominantly broad acre farmland (Wind driven fires) with remnant vegetation in pockets, much of the remnant Dryandra woodlands is on private land. The shire manages this by its Local Government Wide Controls such as fire break notices.

The Quindanning system is in the western part of the Shire and is similar to the Marradong system with Marri, Wandoo, Yorkgum and Jam woodlands. Similar to the Dryandra system, most of this area is managed by DBCA.

³⁰ Source: *Department of Fire and Emergency Services*

Wandering

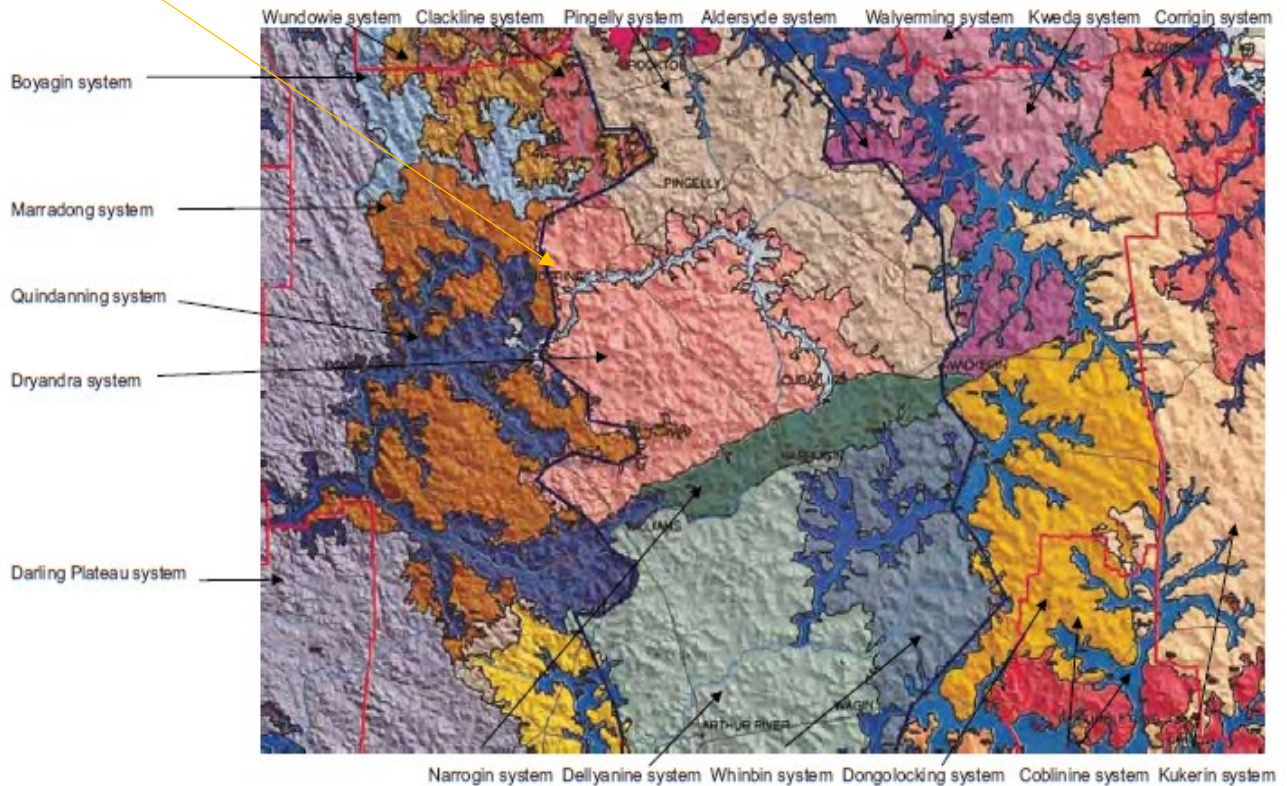


Figure 7: Vegetation categories within the Shire of Wandering³¹

Three (3) aspects of vegetation within the Shire of Wandering that requires specific attention, particularly in the context of bushfire mitigation treatment options moving forward, are:

1. The ability for sheoak – e.g. *Allocasuarina huegeliana* to invade areas of other native vegetation, significantly changing the vegetation and fuel structure. This is a common concern across the region with areas being significantly affected.
2. Managing annual weeds in remnant vegetation and the opportunity for these weeds to become established post mitigation works. Burning small remnants at the incorrect intensity, season or frequency can potentially result in higher fuel loads.
3. Management of Waterways, particularly those in and around assets, are significant as they offer riparian vegetation corridors which can have a wick-like effect and are associated with fire runs with marked changes in fire behaviour, intensity and spread expected in this vegetation compared with other unvegetated land around them.

Whilst agricultural holdings (grassland) may appear to be a low bushfire risk, this vegetation presents a significant bushfire hazard, especially during harvest season (November to January) when harvesting activities have the potential to ignite a fire in fully cured crops. The impact of wind on open terrain regardless of whether it is under crop, should not be underestimated.

³¹ Source: *Landscape and soils of the Narrogin District*, Dept of Agriculture and Food WA, 2010, Bulletin 4807

3.2.4 Threatened Species and Communities

Flora and fauna are significant assets, but also impact the treatment options available for reducing risk to other assets. For example, the breeding cycle of some mammals, such as the Numbat, will restrict the period in which prescribed burns can be undertaken due to the need to ensure nests are not disturbed during the breeding season.

All risk treatments need to consider the requirements of the flora, fauna and communities located on the site. Appropriate authorities must be consulted prior to any mitigation work commencing. The Shire will take every opportunity to remind landowners/managers of their obligation to obtain appropriate clearances and approvals, prior to commencing vegetation-based treatments. Response strategies should be environmentally sensitive within the constraints of the incident.

A further consideration in relation to both bushfire prevention and response strategies is the potential spread of weeds or diseases such as *Phytophthora Cinnamomi* (Dieback), which is easily spread through soil movement from vehicles, animals, water and feet. Other fungal-borne diseases can also be spread through these mechanisms. This risk must be considered in the context of planned prevention and response strategies and the risk minimised wherever possible.

The Shire of Wandering is within the catchment of the Threatened Ecological Community – *Eucalypt Woodlands of the Western Australian Wheatbelt Ecological Community*, listed under the *Environment Protection and Biodiversity Conservation Act 1999*. The distribution of this community in the Shire is shown in figure 8.

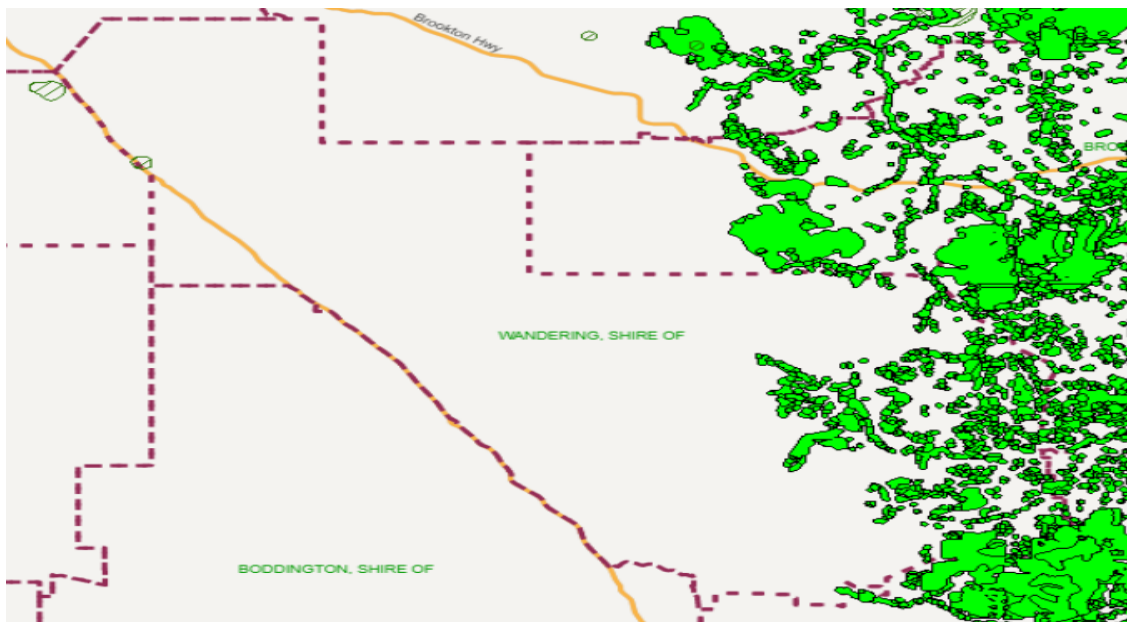


Figure 8: Map reflecting the location of the Eucalyptus Threatened Ecological Community³²

³² Source: DFES Bushfire Risk Management System

The *Approved Conservation Advice (including listing advice) for the Eucalypt Woodlands of the Western Australian Wheatbelt* notes that altered fire regimes will have a significant impact on the threatened community. An altered fire regime includes any sustained changes from the long-term pattern of fires experienced at a site, this can include changes in frequency, seasonality and/or intensity. The Conservation Advice also notes that the response of the TEC to fire is site specific, that the TEC can benefit from an appropriate fire regime and that many responses to fire disturbance can be relatively temporary and/or minor. The impacts, both negative and positive, require careful consideration when undertaking prescribed burning in this TEC.

A list of the Declared Rare Flora and Declared Rare Fauna applicable to the Shire of Narrogin is included at **Appendix 3**.

3.2.5 Bushfire Frequency and Causes of Ignition

DFES records show that from 1/07/2007 – 30/06/2020, a total of 119 incidents were reported in the Shire of Wandering, reflecting on average 9 per year. Anecdotal evidence would suggest that this figure may not be accurate with the local information suggesting there have been other fires not reported through the formal systems. Recent education of local fire management personnel has seen an increase in credibility of fire reporting. Ongoing education is planned, through pre-fire season briefings, to ensure ongoing accuracy of reporting.

Table 8 – Reported landscape fires in the Shire of Wandering 2008 – 2019 ³³



Government of Western Australia
Department of Fire & Emergency Services



Bushfires Summary of Ignition Report

All Bushfires
LGA of WANDERING (S)
from 01/07/2007 to 30/06/2020

A Bushfire is considered to be any vegetation fire (bush, grass, scrub, forest): of any size

Total for the Shire of Wandering

	2007/ 2008	2008/ 2009	2009/ 2010	2010/ 2011	2011/ 2012	2012/ 2013	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018	2018/ 2019	2019/ 2020	Total
Total Number of Bushfires:	2	4	16	6	15	5	14	11	16	5	7	9	9	119
Burn off fires	0	0	0	0	0	0	0	1	1	1	1	3	1	8
Campfires/bonfires/outdoor cooking	0	0	0	0	0	0	3	1	2	0	0	0	1	7
Cigarette	0	0	0	0	0	0	0	1	1	1	1	0	0	4
Equipment - Mechanical or electrical fault	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Equipment - Operational deficiency	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Hot works (grinding, cutting, drilling etc.)	0	1	1	0	0	0	1	0	0	0	0	0	0	3
Human Error (Left on, knock over, unattended etc.)	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Other open flames or fire	0	0	2	0	0	0	1	0	0	0	0	1	0	4
Power lines	0	0	0	0	0	0	0	1	0	0	0	1	0	2
Reignition of previous fire	0	1	0	0	0	0	0	0	1	0	0	0	0	2
Suspicious/Deliberate	0	0	1	1	0	0	0	1	0	0	0	1	3	7
Undetermined	0	1	0	0	1	1	0	0	0	1	0	0	0	4
Unreported	1	1	11	4	8	1	4	0	4	2	1	1	2	40
Vehicles (incl. Farming Equipment/Activities)	0	0	0	1	0	0	2	0	2	0	2	1	1	9
Weather Conditions - Lightning	1	0	0	0	6	2	3	4	5	0	2	1	1	25
Weather Conditions (High winds, natural combustion etc. Ex	0	0	0	0	0	1	0	0	0	0	0	0	0	1

Note: 'Unreported' - a known fire for which the ignition source was not provided to the incident reporting system. 'Undetermined' - the cause of the fire cannot be confirmed by responders.

On review of the above ignition data it is indicated that “Weather Conditions – Lightning strikes” are the most frequent cause of bushfire within the Shire. Local fire personnel make use of new technology such as phone apps (Lightening Tracker) to monitor lightning strikes and forward deploy personnel to conduct ‘on group’ checks. Bureau of Meteorology Weather Warnings are also widely circulated to fire personnel. Agricultural related vehicle fires are the next most frequent, this challenge is largely addressed by council by issuing Section 33 Notices and Harvest and Vehicle Movement Bans.

³³ Source: Department of Fire and Emergency Services

3.2.6 Current Bushfire Risk Management Activities

Map of Bushfire Prone Areas

The intent of the WA Government’s Bushfire Prone Planning Policy is to implement effective risk based land use planning and development to preserve life and reduce the impact of bushfire on property and infrastructure. The *State Planning Policy 3.7 – Planning for Bushfire Prone Areas* ensures bushfire risk is given due consideration in all future planning and development decisions. This policy does not apply retrospectively, however the BRM Plan can help address this risk for existing development and establish an effective treatment plan to manage the broader landscape and any unacceptable community risks. The Shire of Wandering’s Bushfire Prone Area is shown in Figure 12.

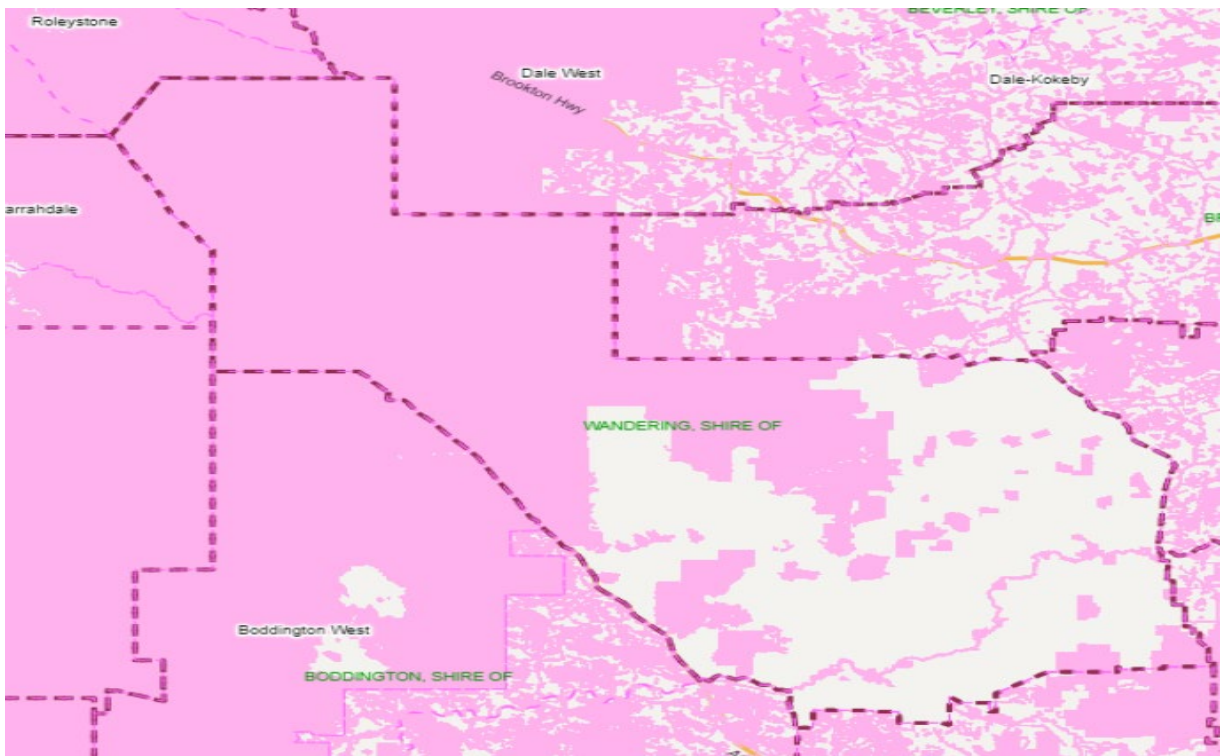


Figure 9: Bushfire Prone mapping³⁴

Volunteer Fire Brigades

The Shire has 4 Bushfire Brigades. The Brigades are:

- Codjatonine- Farmer Response
- Hastings- Farmer Response
- Wandering - 2.4 Appliance
- Wandering Town – 2.4 Appliance

³⁴ Source: *Bushfire Risk Management System*

The Shire of Wandering's equipment is made available when required with specific actions to access machinery during periods of high fire danger. Where the response to a fire exceeds the capacity of local resources, additional support is provided from neighbouring shires and regions.

Burning Restrictions

The *Bush Fires Act 1954*, Sections 17 and 18, provides for the 'declaration and gazettal' of Prohibited and Restricted Burning Times as well as the ability to adjust burning times to suit changing weather conditions.

The Shire of Wandering's Restricted and Prohibited Burning times are as follows, subject to possible variation depending on each bushfire season with the Shire also imposing an annual ban during the festive season:

- 1st October to 31st October: *Restricted (permits required)*
- 1st November to 21st February: *Prohibited*
- 22nd February to 19th April: *Restricted (permits required)*

The Shire maintains a Harvest Ban Hotline which enables residents to be informed, via SMS, when Harvest Bans have been applied and removed.

Bush Fires Act 1954 Section 33 Bushfire Notices

To ensure landowners comply with the requirements under Section 33, the Shire undertakes the following activities:

- Issuing the Fire Control Notice to landowners annually, including publication on the Shire's website and identifying additional recommended actions for landowners, over and above the notice requirements;
- Publishing fire control information and reminders in the local newsletter, which includes the Fire Control Order, Fire Control Officers, Burning Permits & Radio Operators and Restricted & Prohibited Burning times;
- Ranger Services inspect townsite properties prior to the 31 October each year, usually in September and any landowners that have not started hazard reduction activities are issued with a reminder notice.
- Properties that aren't compliant as at the 1 November each year are issued with a notice & and infringement, with time to be deemed compliant;
- If landowners still don't comply then work will be carried out by the Shire and costs incurred recouped from the landowner (Section 33).

Community engagement activities

Whilst compliance with the *Bush Fire Notice* is generally good, when it comes to preparatory efforts community engagement is more challenging, mainly due to time constraints and conflicting

priorities. The Shire advertises through media sources leading up to fire season and has volunteer recruitment days throughout the year.

Other Current Local Government Wide Controls

Local Government Wide Controls are activities that reduce the overall bushfire risk within the Shire of Wandering. These types of activities 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. Some notable controls currently in place in the Shire of Wandering are:

- Shire of Wandering Bush Fire Notice and (*Bush Fires Act 1954*)
- Shire Prohibited and Restricted burn times and issuing of permits. (*Bush Fires Act 1954*)
- Harvest and Vehicle Movement Bans
- Local Emergency Management Arrangements
- Total Fire Bans

Further information about the Local Government Wide Controls and how they will support the treatment of bushfire risk can be found in section 6.1 Local Government Wide Controls.

4. Asset Identification and Risk Assessment

4.1. Planning Areas

The Shire of Wandering has a single planning area.

4.2. Asset Identification

Asset identification and risk assessment has been conducted at the local level using the methodology described in the Guidelines using BRMS. Identified assets are categorised into the following categories and subcategories provided in Table 9.

Table 9 – Asset Categories and Subcategories

Asset Category	Asset Subcategories
Human Settlement	<p>Residential areas Residential areas, including dwellings in rural areas and the rural-urban interface.</p> <p>Places of temporary occupation Commercial and industrial areas, mining sites or camps and other locations where people may work or gather.</p> <p>Special risk and critical facilities</p>

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 bushfire event;
- Occupants may be more vulnerable to stress and anxiety arising from a bushfire event or the effects of smoke;
- There may be significant communication barriers with occupants;
- Relocation and/or management of occupants may present unique challenges or difficulties, such as transportation, or providing alternative accommodation, healthcare or food supplies; or
- Facilities that are critical to the community during a bushfire emergency.

Economic

Agricultural

- Areas under production, such as pasture, livestock, crops, viticulture, horticulture and associated infrastructure.

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, 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.

Environmental

Protected

Flora, fauna and ecological communities that are listed as a:

- Critically Endangered, Endangered or Vulnerable species under the Environmental Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act 1999) (including associated critical habitat);
- Critically Endangered, Endangered or Vulnerable species under the Biodiversity Conservation Act 2016;
- Critically Endangered, Endangered or Vulnerable ecological community under the EPBC Act 1999 (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.

Cultural

Aboriginal heritage

- Places of indigenous significance identified by the DPLH or the

local community.

European heritage

- Non-Indigenous 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 local community as being significant to local heritage.

Other

- Other assets of cultural value to the local community, for example community halls, churches, clubs 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 Shire has elected not to append a copy of *Asset Risk Register* to this document, as the information contained is subject to change over time as treatments are undertaken and risks re-assessed. Current asset, risk assessment and treatment information will be maintained in BRMS, with relevant reports provided to key stakeholders on an ongoing basis.

The percentage of assets within the local government in each asset category at the time of BRM Plan endorsement is shown in Table 10.

Table 10 – Asset Category Proportions

Asset category	Proportion of identified assets
Human Settlement	80.5%
Economic	14.5%
Environmental	0.7 %
Cultural	4.3%

4.3.1 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.

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

- **Consequence Rating – Human Settlement, Economic and Cultural Assets**

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

- **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.

4.3.2 Likelihood Assessment

Likelihood is described as the potential of a bushfire igniting, spreading and impacting an asset. The approach used to determine the likelihood rating is the same for each asset category: Human Settlement; Economic; Environmental; and Cultural.

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 Table 11. This table shows the proportion of assets at risk from bushfire in each risk category at the time the BRM Plan was endorsed.

Table 11– Local Government Asset Risk Summary

Asset Category	Risk Rating				
	Low	Medium	High	Very High	Extreme
Human Settlement		35.1	29.8	9.4%	6.2%
Economic		3.2%	7.4%	3.9%	
Environmental			0.7%		
Cultural		1.25%	2.3%		0.75%

5. Risk Evaluation

5.1. Evaluating Bushfire Risk

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

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

5.2. 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 12 – Criteria for Acceptance of Risk and Course of Action

Risk Rating	Criteria for Acceptance of Risk	Course of Action
Extreme	<p>Requires asset specific treatment strategies to be applied.</p> <p>Treatment action is required within 2 years of the plan being endorsed.</p> <p>It is unlikely that Local Government Wide Controls would be adequate to manage the risk.</p>	<p>Routine controls are not enough to adequately manage the risk.</p> <p>Specific action(s) required in the first 2 years of the BRM where resourcing and funding permits</p> <p>Priorities will include</p> <ul style="list-style-type: none"> • Treatments that will have maximum benefit to multiple assets and critical infrastructure • Treatments that benefit vulnerable communities will be given priority. • Identification of partnerships with other agencies for strategic mitigation • Assets within the townsite to be included on Fire Break inspection list <p>Communication with asset owners as per Communication Plan</p>
Very High	<p>Requires asset specific treatment strategies to be applied.</p> <p>Treatment action is required with 2 years of the plan being endorsed.</p> <p>It is unlikely that Local Government Wide Controls would be adequate to manage the risk.</p>	<p>Specific action(s) required in the first 2 years of the BRM where resourcing and funding permits</p> <p>Assets to be included on the Shires annual fire break inspection</p> <ul style="list-style-type: none"> • Priorities will include • treatments that will have maximum benefit to multiple assets and critical infrastructure • Identification of partnerships with other agencies for strategic mitigation • Assets within the townsite to be included on Fire Break inspection list <p>Communication with asset owners as per Communication Plan</p>
High	<p>Asset specific treatment strategies will likely be required to adequately manage the risk.</p>	<p>Routine controls are not enough to adequately manage the risk.</p> <p>Specific action(s) required in the first 2 years of the BRM where resourcing and funding permits</p> <ul style="list-style-type: none"> • Priorities will include: • Priorities will be made for treatments that will have maximum benefit to multiple assets and critical infrastructure. • Assets that fall adjacent to Extreme or Very High-risk assets • Treatments that benefit vulnerable communities will be given priority. • Identification of partnerships with other agencies for strategic mitigation. <p>Communication with asset owners as per Communication Plan</p>

Medium	<p>Asset specific treatments are not required, but risk should be monitored.</p> <p>Local government wide controls should be sufficient to manage the risk</p> <p>If there is a change in the landscape / environment these assets may need to be reassessed more frequently.</p>	<p>Specific actions are not be required. Risk may be managed with routine controls and monitored periodically throughout the life of the BRM Plan.</p>
Low	<p>Asset specific treatments are not required, but risk should be monitored.</p> <p>Local government wide controls should be sufficient to manage the risk</p> <p>If there is a change in the landscape / environment these assets may need to be reassessed more frequently.</p>	<p>Specific actions are not required. Risk will be managed with routine controls and monitored as required.</p>

5.3. Treatment Priorities

The treatment priority for each asset has been automatically assigned by BRMS and recorded in the *Treatment Schedule*, based on the asset’s risk rating. 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)
	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)

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 are non-asset specific, rather they reduce the overall bushfire risk within the local government.

The Local Government Wide Controls Table has been developed and attached at Appendix B. The table identifies the current controls in place (see section 3.2.6 for detailed information on these), including any work planned to improve current controls or implement new controls to better manage bushfire risk across the local government area.

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 five asset specific treatment strategies:

- **Fuel management**

Treatment reduces or modifies the bushfire fuel through manual, chemical and planned 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.

6.3. Development of the Treatment Schedule

The treatment schedule is a list of bushfire risk treatments recorded within BRMS. Shire of Wandering will be focusing on developing a program of works that covers activities to be undertaken within the first year after the approval of the BRM Plan. The treatment schedule will evolve and develop throughout the life of the BRM Plan.

The treatment schedule will be developed in broad consultation with land owners and other stakeholders including DFES and DBCA.

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's *Treatment Schedule* 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 approval. Significant circumstances that may warrant an earlier review of the BRM Plan include:

- Changes to organisational responsibilities or legislation;
- Changes to the bushfire risk profile of the local government; or
- Following a major fire event.

7.2. Monitoring

BRMS will be used 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 as described in Table 13. Criteria for Acceptance of Risk and Course of Action. New assets will be added to the Asset Risk Register when they are identified.

7.3. Reporting

The reporting requirements will be managed by a member of the Shire Administration Team designated by the Chief Executive Officer.

On request, the Shire of Wandering may contribute relevant information to be included in the *Fuel Management Activity Report* produced annually by OBRM.

7.3.1 Privacy Issues and Release of Information

Information captured through the Bushfire Risk Management System (BRMS) includes data considered 'personal' in nature including the names and addresses of landholders. There is therefore the potential for the data collected through the BRMS to be used for purposes other than bushfire risk mitigation (i.e. Insurance companies using this information to set insurance premiums).

The Chief Executive Officer is to be consulted prior to any Bushfire Risk Management data being released to the public domain.

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 (BRMS) used to record the details of assets identified in the Bushfire Risk Management Plan (BRM Plan).
Asset Risk Register	A report produced within the 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 Hazard	The hazard posed by the classified vegetation, based on the vegetation category, slope and separation distance.
Bushfire Risk Management Plan	A development related document that sets out short, medium and long term bushfire risk management strategies for the life of a development.
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.
Bushfire Risk	The chance of a bushfire igniting, spreading and causing damage to the community or the assets they value.

Consequence	The outcome or impact of a bushfire event.
Draft Bushfire Risk Management Plan	The finalised draft BRM Plan is submitted to the Office of Bushfire Risk Management (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 approval.
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 of a bushfire igniting, spreading and impacting on an asset.
Locality	The officially recognised boundaries of suburbs (in cities and larger towns) and localities (outside cities and larger towns).
Map	The mapping component of the BRMS. Assets, treatments and other associated information is spatially identified, displayed and recorded within the Map.
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.
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 Register	A component within the BRMS used to record, review and monitor risk assessments and treatments associated with assets recorded in the BRM 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.
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 to modify risk, for example a planned 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 <i>Treatment Schedule</i> of the BRM Plan, including coordinating or undertaking work, monitoring, reviewing and reporting.
Treatment Planning Stage	The status or stage of a treatment as it progresses from proposal to implementation.
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 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, for example fuel management.
Treatment Type	The specific treatment activity that will be implemented to modify risk, for example a planned burn.
Vulnerability	The susceptibility of an asset to the impacts of bushfire.

9. 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
OBRM	Office of Bushfire Risk Management (DFES)
PEC	Priority Ecological Community
SEMC	State Emergency Management Committee
TEC	Threatened Ecological Community
UCL	Unallocated Crown Land
UMR	Unmanaged Reserve
WA	Western Australia

10. Appendices

Appendix A	Communication Strategy
Appendix B	Local Government Wide Controls Table
Appendix C	Declared Rare Flora and Fauna in the Shire of Wandering



Shire of Wandering

Bushfire Risk Management Planning

COMMUNICATION STRATEGY

Document Control

Document Name	Bushfire Risk Management Plan Communications Strategy
Document Owner	Shire of Wandering, CEO
Document Location	Add as required
Current Version	1.1
Issue Date	DD/MM/YYYY
Next Review Date	DD/MM/YYYY

Related Documents

Title	Version	Date
Shire of Wandering Bushfire Risk Management		

[Add rows as](#)

Amendment List

Version	Date	Author	Section

[Add rows as](#)

1.Introduction

A Bushfire Risk Management (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 Wandering.

This Communication Strategy accompanies the BRM Plan for the Shire of Wandering.

It documents the:

- communication objectives;
- roles and responsibilities for communication;
- key stakeholders;
- stakeholders engaged in the development of the BRM Plan and Treatment Schedule; and
- Communication Plan for the implementation and review of the BRM Plan including: 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

2.1. Communication Objectives

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

1. Key stakeholders understand the purpose of the BRM Plan and their role in the BRM planning process.
2. Stakeholders who are essential to the BRM 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.
5. The community and other stakeholders engage with the BRM planning process and as a result are better informed about bushfire risk and understand their responsibilities to address bushfire risk on their own land.

2.2 Communication Roles and Responsibilities

Shire of Wandering 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 Wandering, is responsible for endorsement of the BRM Plan Communications Strategy.
- CEO, Shire of Wandering, responsible for external communication with the local government area.
- CEO, Shire of Wandering, responsible for operational-level communication between the Shire and the Department of Fire and Emergency Services.

2.3 Key Stakeholders for Communication

The following table identifies key stakeholders in the BRM Plan’s development, implementation and review. 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 or outcomes	Level of engagement
Shire of Wandering	Significant role in plan and treatment development, implementation and review. Responsible for treatments as a land owner/manager.	High	Inform, consult, involve, collaborate and empower
Department of Fire and Emergency Services	Significant role in plan and treatment development, implementation and review. Support role in treatment Implementation.	High	Inform, consult, involve and collaborate
Department of Biodiversity, Conservation and Attractions	Significant role in plan and treatment development, implementation and review. Responsible for treatments as a land owner/manager.	High	Inform, consult, involve, collaborate and empower
Main Roads WA	Role in plan and treatment development, implementation and review. Responsible	Medium	Inform, consult, involve and collaborate

	for treatments as a land owner/manager. Critical infrastructure interest.		
Telecommunication providers	Role in plan and treatment development, implementation and review. Responsible for treatments as a land owner/manager. Critical infrastructure interest.	Medium	Inform, consult, involve and collaborate
Department of Planning, Lands and Heritage, LandCorp & Landgate	Role in plan and treatment development, implementation and review	Medium	Inform, consult, involve and collaborate
Water Corporation & Department of Water	Role in plan and treatment development, implementation and review. Responsible for treatments as a land owner/manager. Critical infrastructure interest.	Medium	Inform, consult, involve and collaborate
Western Power	Role in plan and treatment development, implementation and review. Responsible for treatments as a land owner/manager. Critical infrastructure interest.	Medium	Inform, consult, involve, collaborate
Chief Bushfire Control Officer	Significant role in plan and treatment development, implementation and review. Actively assist in risk identification and treatment works. Empower to actively engage with community and identify/treat risks	High	Inform, consult, involve, collaborate and empower
Bushfire Brigades and other Emergency Services Volunteers	Significant role in plan and treatment development, implementation and	Medium	Inform, consult, involve, collaborate

	review. Assist in risk identification and treatment works.		
Shire of Wandering Bushfire Advisory Committee	Role in plan development, implementation and review. Actively assist in risk identification and treatment works. Empower to actively engage with community and identify/treat risks	High	Inform, consult, involve, collaborate
Regional Operations Advisory Committee	Role in plan development, implementation and review	Medium	Inform, consult, involve, collaborate
Local Emergency Management Committee	Role in plan development, implementation and review	Medium	Inform, involve and consult
Traditional Owners, Gnaala Karla Boodja Regional Corporation, South West Aboriginal Land and Sea Council & Department of Aboriginal Affairs	Role in plan and treatment development, implementation and review. May have responsibilities for treatments as land owners/managers	Medium	Inform, involve and consult

3. Communications Log – Development of the BRM Plan and Treatment Schedule

This Communications Log captures the communications with key internal and external stakeholders that occurred during the development of the BRM Plan and associated Treatment Schedule. Record any significant conversations, community engagement events, emails, meetings, presentations, workshops and other communication initiatives.

Timing of communication	Stakeholders	Purpose	Summary	Communication Method	Lesson Identified	Follow up
Development of the BRM Plan						
When did this communication occur?	Who was the stakeholder or target audience?	What was the purpose of the communication?	What topics were discussed?	What communication method did you use?	Were there any issues or lessons identified?	Was there any follow up required?
August 2020	Shire of Wandering CEO, Senior Leadership Team and Council	1 – 3 & 5	Inform and consult Confirm accountability and responsibilities Input into plan and treatments Confirm project objectives Project updates	Email Face to face meetings Presentation	Resource constraints could limit their ability to participate Lack of understanding	Project updates
March 2021	Bushfire Advisory Committee (BFAC) and	1 – 3 & 5	Inform and consult Confirm project objectives Input into plan and treatments	Email Face to face meetings Presentation	Stakeholders willingness to participate Lack of understanding	Project updates

	Regional Operations Advisory Committee (ROAC)		Project updates			
March 2021	Local Emergency Management Committee (LEMC)	1 – 3 & 5	Confirm project objectives Project updates	Email Face to face meetings Presentation	Stakeholders willingness to participate	Project updates
December 2020	Chief Bushfire Control Officer (CBFCO), Bushfire Brigades, Brigade Captains	1 – 3 & 5	Inform and consult Confirm project objectives Input into plan and treatments Project updates Identify Risk and share information	Email Face to face meetings	Time constraints Lack of understanding	Project updates
Ongoing weekly briefs with Bushfire Risk Management Officer Bi-annually and as required	Dept of Fire and Emergency Services (DFES) – District/Regional Office	1 – 3 & 5	Compliance and governance Plan endorsement Sharing information	Email Face to face meetings Telephone	Time constraints Response obligations	Project updates
Bi-annually and as required	Office of Bushfire Risk Management	1 & 2	Compliance and governance Plan endorsement	Email Face to face meetings Telephone	Government funding	Project updates

Development of the Treatment Schedule

Life of the Plan	Shire of Wandering CEO, Senior Leadership Team and Council	1 – 3 & 5	Reduction of fuel loads on shire managed lands Risks to community Action Plan Upgrade Strategic fire breaks Planned works identified	Email Face to face meeting Telephone Presentations	Government funding Time constraints LG budgeting constraints	Stay up to date with process improvements
Life of the Plan	Chief Bushfire Control Officer (CBFCO), Bushfire Brigades, Brigade Captains	1 – 3 & 5	Confirm project and objectives Seek input into treatment plans and providing project updates Identify Risk and share information Availability of volunteers Planned works identified	Email Face to face meeting Telephone Presentations Community Engagement activities	Clarify misunderstandings and intentions of plan Confirm benefits- Preparation Ensure current information on the BRM Plan Project is available	Stay up to date with process improvements Availability of Volunteers
Biannually or as required	Bushfire Advisory Committee (BFAC) and Regional Operations Advisory Committee (ROAC)	1 – 3 & 5	Confirm project and objectives Seek input into treatment plans and providing project updates Identify Risk and share information	Email Face to face meeting Telephone Presentations	Clarify misunderstandings and intentions of plan Confirm benefits- Preparation Ensure current information on the BRM Plan Project is available	Stay up to date with process improvements

As per Section 7.2 of this plan	Stakeholders – Landowners / Land Managers	1 – 3 & 5	Confirm project and objectives Seek input into treatment plans and providing project updates Identify Risk and share information	Email Face to face meeting Telephone Presentations Community Engagement activities	Level of interests and engagement in process Time constraints	Feedback Highly engaged Treatments being completed Commitment to agreed controls
Annually or as required	Dept of Fire and Emergency Services (DFES) – District/Regional Office	1 – 3 & 5	UCL/UMR Management Status and progress of plan Treatment status, gaps and issues to be addressed Continuous improvement Information sharing Identification of other planned works Identification of funding opportunities	Email Face to face meeting Telephone	Time constraints Response obligations	Compliance requirements
Annually	Office of Bushfire Risk Management	1 – 3 & 5	Bushfire Risk Management System up to date with treatments	BRMS	Availability of funding	Compliance requirements

4. Communications Plan – Implementation and Review of the BRM Plan

This Communications Plan outlines the key communication initiatives that will be undertaken during the implementation and review of the BRM Plan.

Timing of communication	Stakeholders	Communication Objective(s)	Communication Method	Key Message or Purpose	Responsibility	Identified Risks to Communication	Strategy to Manage Risks	Monitoring and Evaluation Method
Implementation of the BRM Plan								
Life of Plan	Shire of Wandering CEO, Senior Leadership Team and Council	All (1 – 5)	Email Face to face meetings	Inform and consult Confirm accountabilities and responsibilities. Progress update Issues identification and action planning	CEO or Delegate	Time constraints Availability Lack of understanding Budget (for LG mitigation)	Planning and time management Clear purpose Targeted communication Regular updates	Feedback, Questions raised Level of support received
Life of Plan	Shire of Wandering Building and Works	1 – 3 & 5	Email Face to face meetings	Reduction of fuel loads on LG managed land Upgrades to strategic firebreaks	CEO or Delegate	Poor organisation, Limited time, Not preparing Poor communication from stakeholders and LG on completion of works	Clarify misunderstandings and intentions of plan Plan communications Regular updates	Treatments applied Positive feedback received on treatment supplied Risk ratings reduced

Biannually or as required	LEMC, BFAC, ROAC, CBFCO, CAPTS	All (1 – 5)	Email Face to face meetings	Report on progress to plan Report issues/constraints	CEO or Delegate	Availability of volunteers Time 'Buy in' Lack of understanding	Collate data and report on success to plan Compliance to plan Keep informed	Feedback received Level of engagement Issues identified and addressed
All (1 – 5)	Dept of Biodiversity, Conservation and Attractions	1 – 3 & 5	Email Face to face meetings Telephone	Confirmation of environmental assets Development of treatment options	CEO or Delegate	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 Environment-al assets in BRMS
As per Section 7.2 of this plan	Stakeholders – Landowners / Land Managers	1 – 3 & 5	Face to face Presentations Community Engagement	Inform and consult Confirm accountability and responsibility Status and progress of plan Treatment status Gaps and issues to be addressed	CEO or Delegate	Availability Time Loss of commitment Access to treatment resources Funding	Planned to share information Negotiations conducted Communicate funding opportunities when available	Feedback Commitment to implement agreed controls Highly engaged Treatments being completed
As required	Stakeholders – Others	1 – 3 & 5	Face to face Presentations	Inform and consult	CEO or Delegate	Availability Time	Planned to share information	Feedback

			Community Engagement Telephone Email	Confirm accountability and responsibility Status and progress of plan Treatment status Gaps and issues to be addressed		Loss of commitment	Negotiations conducted Communicate funding opportunities when available	Commitment to implement agreed controls Highly engaged Treatments being completed
Annually or as required	OBRM, DFES District / Regional Office	1-3	Face to face meetings Email Telephone	UCL/UMR Management Status and progress of plan Treatment status, gaps and issues to be addressed, Continuous improvement, Information sharing, Identification of other planned works, Identification of funding opportunities	CEO or Delegate	Time Conflicting priorities	Schedule communication opportunities	Planned works identified Improvements identified and implemented Issues addressed
Annually	OBRM	1,2	Written report	Continuous improvement Governance and compliance	CEO or Delegate	Time Conflicting priorities	Plan communication	Feedback received
Annually – ideally prior to fire season	Community	5	Newsletter Website Facebook	Continuous improvement	CEO or Delegate	Time Conflicting priorities	Plan communication	Feedback received

Review of the BRM Plan

Annually	Shire of Wandering CEO, Senior Leadership Team and Council	4, 5	Face to face meetings Email Telephone	Governance and compliance Review, monitoring and reporting to Council Status update Continuous improvement	CEO or Delegate	Poor reporting and recording of information	BRPC & BRMO to record data and information appropriately	Feedback received Planned works completed Reporting & Statistics Risk ratings reduced
5 Yearly (Shire, DFES and OBRM)	OBRM & LG Council	4, 5	Face to face meetings Email Telephone Written report	Governance and compliance Review, monitoring and reporting Future planning	CEO or Delegate	Poor reporting and recording of information Review not completed by OBRM	BRPC & BRMO to record data and information appropriately Endorsed by OBRM	Feedback received Planned works completed Reporting & Statistics Risk ratings reduced
Quarterly or as required	Shire of Wandering – Building and Works	4, 5	Face to face meetings Email Telephone	Report on actions and status of BRM Plan Continuous improvement	CEO or Delegate	Time LG capacity Conflicting priorities	Plan communications Discuss with Shire Leadership Team	Feedback on work completed Risk ratings reduced Improvements identified and implemented
Biannually or as required	DFES Regional / District Office	4, 5	Face to face meetings	Report on actions and status of BRMP Continuous improvement UCL/UMR funding	CEO or Delegate	LG capacity Time Conflicting priorities	Plan communications	Feedback on work completed Risk ratings reduced Improvements identified and implemented
Annually	BFAC, ROAC, LEMC,	4, 5	Face to face meetings Email Telephone	Report on actions and status of BRMP Continuous improvement	CEO or Delegate	LG capacity Time Conflicting priorities Buy in	Keep informed Share the wins	Feedback on work completed Risk ratings reduced

	CBFCO, Captains		Presentations					Improvements identified and implemented
Every 2 years or as required	Stakeholders – Land Owners / Land Managers	4, 5	Face to face meetings Telephone Presentation Community Engagement Survey	Status of treatments Success of treatments Continuous improvement	CEO or Delegate	LG capacity Time Conflicting priorities Buy in Access to resources	Plan communication Target communication Planned and prepared	Feedback on work completed Risk ratings reduced Improvements identified and implemented
Every 2 years or as required	Stakeholders – Other	4, 5	Face to face meetings Telephone Presentation Survey	Status of treatments Success of treatments Continuous improvement	CEO or Delegate	LG capacity Time Conflicting priorities Buy in Access to resources	Plan communication Target communication Planned and prepared	Feedback on work completed Risk ratings reduced Improvements identified and implemented

APPENDIX B

Bushfire Risk Management Planning – Local Government Wide Controls

This table details the programs and activities (controls) currently undertaken by local government and other stakeholders within the Shire of Wandering in relation to managing bushfire risk.

	Control	Action or Activity Description	Lead Agency	Other Stakeholder(s)	Notes and Comments
1.	BRM Planning Risk Analysis	<ul style="list-style-type: none"> Maintain and refine BRM Plan 	Shire of Wandering	Landowners DFES	Treatment identification and planning for all high, very high and extreme risk assets within the Shire.
2.	Shire of Wandering Bush Fire Notice and (<i>Bush Fires Act 1954</i>)	<ul style="list-style-type: none"> Review annual notice Publish annual notice Inspections in accordance with annual notice 	Shire of Wandering	CBFCO, FCO, Captains and the public	Published Annually. Inspect local properties. 'Fire Access Track' has the same meaning as 'Fire Break', in the <i>Bush Fires Act 1954</i> .
3.	Shire Prohibited and Restricted burn times and issuing of permits. (<i>Bush Fires Act 1954</i>)	<ul style="list-style-type: none"> Restricted and Prohibited Burn Times set the requirement that 'a permit to set fire to the bush' must be obtained. 	Shire of Wandering	CBFCO, FCO's	Published Annually.
4.	Harvest and Vehicle Movement Bans	<ul style="list-style-type: none"> Bans imposed when the CBFCO and FCO's are of the opinion that the use of engines, vehicles, plant or machinery is likely to cause/contribute to the spread of a bushfire. 	Shire of Wandering	CBFCO and FCO's	A Harvest and Vehicle Movement Ban may be imposed for any length of time but is generally imposed for the 'heat of the day' periods and may be extended or revoked by the local government should weather conditions change.
5.	Local Emergency Management Arrangements	<ul style="list-style-type: none"> Emergency Management Plan 	Shire of Wandering	SJA WAPOL DFES Dept of Child Protection Dept of Education	Annual review of emergency plans and arrangements.

	Control	Action or Activity Description	Lead Agency	Other Stakeholder(s)	Notes and Comments
				CBFCO DEMC OEM	
6.	Local Planning Scheme No 2	<ul style="list-style-type: none"> Requirement for new developments to complete a Fire Management Plan endorsed through the Dept of Fire and Emergency Services (if in a Bushfire Prone area) 	Shire of Wandering	DFES	Where a Fire Management Plan has been endorsed by DFES and the Shire, the affected land owners will be responsible for the ongoing implementation of the “land owners’ responsibilities” as specified in that Fire Management Plan.
7.	Total Fire Bans	<ul style="list-style-type: none"> Restriction of activities that may cause or contribute to the spread of a bushfire 	Department of Fire and Emergency Services	Shire of Wandering	A Total Fire Ban (TFB) is declared because of extreme weather conditions or when widespread fires are stretching firefighting resources. A TFB is declared by DFES following consultation with the LG.
8.	State Planning Policy 3.7	<ul style="list-style-type: none"> Planning in Bushfire Prone Areas 	Department of Planning, Lands and Heritage	WA Planning Commission Shire of Wandering	Land developers are required to implement a Fire Management Plan to ensure risk is managed and other controls implemented and monitored.
9.	The Principal’s guide to Bushfire - Department of Education	<ul style="list-style-type: none"> All schools should include their plan for dealing with bushfire as a part of their governance documentation 	Department of Education	DFES	DoE / DFES MOU for assessment of schools in bushfire prone areas and provision of bushfire treatment planning and advice

APPENDIX C

Details

Matters of National Environmental Significance

Wetlands of International Importance (Ramsar)	[Resource Information]
Name	Proximity
Peel-ylgorup system	40 - 50km upstream

Threatened Ecological Communities [Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Name	Status	Type of Presence
Eucalypt Woodlands of the Western Australian Wheatbelt	Critically Endangered	Community likely to occur within area

Threatened Species [Resource Information]

Name	Status	Type of Presence
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BIRDS

Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Calyptorhynchus banksii naso Forest Red-tailed Black-Cockatoo, Karrak [67034]	Vulnerable	Species or species habitat known to occur within area
Calyptorhynchus baudinii Baudin's Cockatoo, Long-billed Black-Cockatoo [769]	Endangered	Breeding known to occur within area
Calyptorhynchus latirostris Carnaby's Cockatoo, Short-billed Black-Cockatoo [59523]	Endangered	Species or species habitat known to occur within area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat may occur within area
Leipoa ocellata Malleefowl [934]	Vulnerable	Species or species habitat known to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area
MAMMALS		
Bettongia lesueur lesueur Burrowing Bettong (Shark Bay), Boodie [66659]	Vulnerable	Species or species habitat likely to occur within area
Bettongia penicillata ogilbyi Woylie [66844]	Endangered	Species or species habitat known to occur within area
Dasyurus geoffroi Chuditch, Western Quoll [330]	Vulnerable	Species or species habitat known to occur within area

Name	Status	Type of Presence
Macrotis lagotis Greater Bilby [282]	Vulnerable	Translocated population known to occur within area
Myrmecobius fasciatus Numbat [294]	Endangered	Species or species habitat known to occur within area
Phascogale calura Red-tailed Phascogale, Red-tailed Wambenger, Kenngoor [316]	Vulnerable	Species or species habitat known to occur within area
Pseudocheirus occidentalis Western Ringtail Possum, Ngwayir, Womp, Woder, Ngoor, Ngoolangit [25911]	Critically Endangered	Species or species habitat may occur within area
Setonix brachyurus Quokka [229]	Vulnerable	Species or species habitat known to occur within area
OTHER		
Westralunio carteri Carter's Freshwater Mussel, Freshwater Mussel [86266]	Vulnerable	Species or species habitat known to occur within area
PLANTS		
Acacia cochlocarpa subsp. cochlocarpa Spiral-fruited Wattle [23877]	Endangered	Species or species habitat may occur within area
Anthocercis gracilis Slender Tailflower [11103]	Vulnerable	Species or species habitat may occur within area
Banksia oligantha Wagin Banksia [20697]	Endangered	Species or species habitat may occur within area
Boronia capitata subsp. capitata a shrub [29156]	Endangered	Species or species habitat may occur within area
Darwinia carnea Mogumber Bell, Narrogin Bell [9736]	Endangered	Species or species habitat may occur within area
Diuris micrantha Dwarf Bee-orchid [55082]	Vulnerable	Species or species habitat likely to occur within area
Diuris purdiei Purdie's Donkey-orchid [12950]	Endangered	Species or species habitat likely to occur within area
Eleocharis keigheryi Keighery's Eleocharis [64893]	Vulnerable	Species or species habitat may occur within area
Grevillea flexuosa Zig Zag Grevillea [2957]	Vulnerable	Species or species habitat likely to occur within area
Lasiopetalum pterocarpum Wing-fruited Lasiopetalum [64922]	Endangered	Species or species habitat may occur within area
Pultenaea pauciflora Narrogin Pea [14013]	Vulnerable	Species or species habitat likely to occur within area
Thelymitra dedmaniarum Cinnamon Sun Orchid [65105]	Endangered	Species or species habitat may occur within area

Thelymitra stellata Star Sun-orchid [7060]	Endangered	Species or species habitat may occur within area
Thomasia montana Hill Thomasia [12136]	Vulnerable	Species or species habitat known to occur within area
Verticordia fimbriolepis subsp. fimbriolepis Shy Featherflower [24631]	Endangered	Species or species habitat known to occur within area

Migratory Species [Resource Information]

* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.

Name	Threatened	Type of Presence
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Migratory Marine Birds

Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
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Migratory Terrestrial Species

Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area
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Migratory Wetlands Species

Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area
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Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
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Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
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Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area
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Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
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Pandion haliaetus Osprey [952]		Species or species habitat may occur within area
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Other Matters Protected by the EPBC Act

Commonwealth Lands [Resource Information]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Name Commonwealth Land -		
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Listed Marine Species [Resource Information]

* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.

Name	Threatened	Type of Presence
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Birds

Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat may occur within area
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Name	Threatened	Type of Presence
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardea alba Great Egret, White Egret [59541]		Species or species habitat likely to occur within area
Ardea ibis Cattle Egret [59542]		Species or species habitat may occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area
Chrysococcyx osculans Black-eared Cuckoo [705]		Species or species habitat likely to occur within area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat may occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Pandion haliaetus Osprey [952]		Species or species habitat may occur within area
Rostratula benghalensis (sensu lato) Painted Snipe [889]	Endangered*	Species or species habitat likely to occur within area