Shire of Nannup Bushfire Risk Management Plan

2025 – 2027

Office of Bushfire Risk Management Bushfire Risk Management (BRM Plan) endorsed 10 June 2025

Local Government Council BRM Plan approval 26 June 2025

Table of Contents

Document control

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Document Endorsements

This Bushfire Risk Management Plan has been endorsed by the Office of Bushfire Risk Management as consistent with the standards detailed in the *Guidelines for Preparing a Bushfire Risk Management Plan 2023*.

The approval of the Bushfire Risk Management Plan by Shire of Nannup Council signifies support of the plan's implementation and commitment to working with risk owners to manage bushfire risk. Approval does not signify acceptance of responsibility for risk, treatments or outcomes on land that is not managed by the Shire of Nannup.

Local Government	Representative	Signature	Date
Shire of Nannup	David Taylor - CEO		

Publication Information

Chapter 1 Introduction

1.1 Background

This Bushfire Risk Management (BRM) Plan provides contextual information to inform a structured approach to identifying, assessing, prioritising, monitoring and treating bushfire risk. The BRM Plan has been prepared by the Shire of Nannup, encompasses all land within the Shire of Nannup and has been written on behalf of all stakeholders within that area. The BRM Plan is informed by consultation and communication with land and asset managers that has occurred throughout its development to ensure an informed and collaborative approach to managing bushfire risk.

The BRM plan has been prepared with due consideration of the requirements stated in the *Guidelines for Preparing a Bushfire Risk Management Plan* (the Guidelines) published by the Office of Bushfire Risk Management (OBRM) including the principles described in *ISO 31000:2018 Risk Management*.

1.2 Objective of the Bushfire Risk Management planning program

The BRM planning program supports local governments to reduce the threat posed by bushfire.

The Shire of Nannup BRM Plan will contribute to achieving the objective of the BRM program by:

- Guiding and coordinating a cross-tenure, multi-stakeholder approach to BRM planning.
- Facilitating the effective use of the financial and physical resources available for BRM activities.
- Supporting integration between risk owners, strategic objectives and tactical outcomes.
- Documenting processes used to monitor and review the implementation of treatments to ensure risk is managed to an acceptable level.

1.3 Legislation, policy and standards

A summary of Key Legislation, guidelines, policy and standards that have been applied, but not limited to the development and implementation of this BRM Plan are;

- *Bush Fires Act 1954 (Western Australia)*:
  - The principal legislation governing bushfire management in Western Australia, outlining responsibilities for local governments, individuals, and agencies in terms of fire prevention, control, and suppression.
- *Fire and Emergency Services Act 1998:*
  - Provides authority to the Department of Fire and Emergency Services (DFES) for managing fire and emergency services in the State.
- *Local Government Act 1995:*
  - Enables local governments to implement policies, bylaws, and initiatives related to bushfire risk management within their jurisdictions.
- *Environmental Protection Act 1986*:
  - Informs environmental and vegetation management considerations when planning for bushfire risk mitigation.

- *Planning and Development Act 2005*:
  - Governs land-use planning and development in bushfire-prone areas, especially related to new infrastructure and zoning to reduce fire risk.
- Aboriginal Cultural Heritage Act 2021:
  - Ensures protection of Aboriginal heritage sites during bushfire risk mitigation and management activities.
- *Key Policies and Standards:*
  - State Planning Policy 3.7 (Planning in Bushfire Prone Areas):
    - A critical policy outlining how land use should account for bushfire risk in high-risk zones and ensuring that developments in such areas adhere to fire safety regulations.
- Guidelines for Preparing a Bushfire Risk Management Plan 2023:
  - A DFES guideline that provides a structured process for preparing and implementing a BRM plan, including risk identification, asset management, and treatment strategies.
- ISO 31000:2018 (Risk Management – Principles and Guidelines):
  - International standard applied for risk management processes, forming the basis for risk assessment and mitigation strategies in BRM planning.
- National Construction Code (NCC) and Building Code of Australia (BCA):
  - These codes outline building design and construction standards in bushfire-prone areas, such as the requirements for Bushfire Attack Level (BAL) assessments.
- Bushfire Risk Management Planning Handbook (Appendix 1):
  - Contains a comprehensive summary of all related legislation, policies, and guidelines pertinent to bushfire risk management.
- Local Government Standards and Policies:
  - Firebreak Notice (issued under *Bush Fires Act 1954*): Establishes local firebreak and hazard management requirements.
  - Local Government Emergency Management Policies: Specific to each municipality, providing additional context for risk management in line with local fire-prone conditions.
  - These elements form the basis for ensuring that the BRM plan complies with national, state, and local standards while facilitating effective management of bushfire risks

Chapter 2 The Risk Management Process

The BRM planning process is a cycle of understanding the context and assessing and treating risks (Figure 1). Each of these steps is informed by communication and consultation and supported by monitoring and review. The three products produced during the BRM planning process are the BRM Plan, Asset Risk Register and Treatment Schedule (Figure 1).

Further details on the guiding principles and process for the development of this plan can be found in Chapter 2 of the Guidelines.

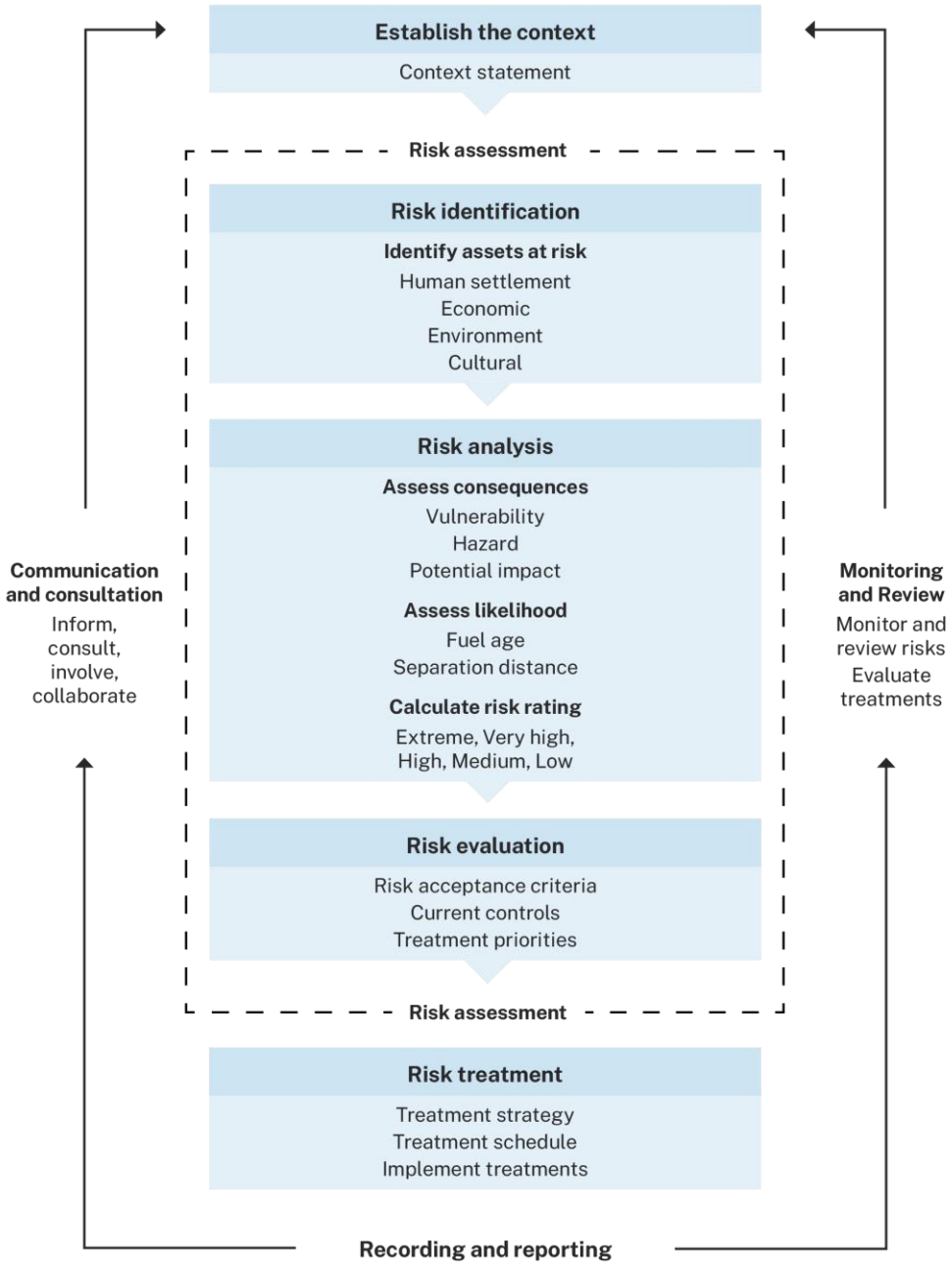


Figure 1. The Bushfire Risk Management planning process

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 in the Bushfire Risk Management (BRM) planning process

Stakeholder*	Roles and responsibilities
Local government	• Custodian of the BRM Plan. • Coordinate the development and ongoing review of the BRM Plan. • Undertake bushfire risk assessment of local government area. • Submit the draft BRM Plan to OBRM for review and endorsement. • Develop and implement a Treatment Schedule for local government managed land. • Encourage risk owners to treat identified risks.
DFES	• Contribute to the development and implementation of the BRM Plan. • Facilitate involvement of state and federal government agencies in the BRM planning process. • Undertake treatments on Unmanaged Reserves and Unallocated Crown Land within gazetted town sites. • By agreement, implement treatment strategies for other land managers. • Endorse BRM Plans as consist with the Guidelines, BRM Program and dynamic risk environment. • Administer the Mitigation Activity Fund Grants Program.
Department of Biodiversity, Conservation and Attractions (DBCA)	• Contribute to the development of the BRM Plan. • Implement their treatment program on DBCA managed land. • Provide advice on environmental assets and appropriate treatment strategies for their protection.
Department of Planning, Lands and Heritage	• Identify managed assets. • Provide advice on management of Aboriginal Cultural Heritage.
Other State and Commonwealth Government agencies and public utilities	• Identify managed assets. • Provide advice on current risk treatment programs. • Contribute to the development of BRM Plans. • Undertake treatments on lands they manage.

Stakeholder*	Roles and responsibilities
Corporations and private landowners	• Identify managed assets. • Provide advice on current risk treatment programs. • Undertake treatments on lands they manage.

2.2 Communication and Consultation

The Shire of Nannup has fostered a strong communication and consultation process as it is fundamental to the development and implementation of the BRM Plan. **Appendix C**. The continuous open communication with stakeholders, residents, first responders and industry ensure Shire's risk assessments and treatment plans are informed by the diverse perspectives and community needs. Public education, awareness, training programs, and consultation events help engage residents, landowners, and businesses in bushfire preparedness and risk reduction activities, building a resilient community.

Chapter 3 Establishing the Context

3.1 Strategic and Corporate Framework

Shire of Nannup recognises the ongoing and expanding threat period of bushfire and the impact that it poses to the community. This context statement will outline the key political, economic, social and environmental factors that influence bushfire risk and its management within the Shire.

The Shire's Corporate Business Plan 2022-2028 identifies in Strategy 4.1.2, to support the management of hazards to our natural assets and community. Initiative 4.1.2.2 to 4.1.2.5 supports the implementation of continued support to the community to manage bushfire risk, maintain the Local Emergency Management Arrangements (LEMA) and engage with Department of Fire and Emergency Services (DFES) to access the Mitigation Activity Grants program to manage bushfire risk.

The integration of Bushfire Risk Management (BRM) planning into the Shire of Nannup's local government structure ensures that bushfire risk is addressed systematically across strategic, operational, and community-focused activities.

The Shire's Bush Fire Advisory Committee (BFAC) and Local Emergency Management Committee (LEMC) are encouraged to provide comment on the BRMP, which is presented to each of the committees along with other appropriate community groups as part of the consultation process. The Shire collaborates with other agencies such as the Department of Fire and Emergency Services (DFES) and the Department of Biodiversity, Conservation and Attractions (DBCA), for expertise, support, and alignment of responsibilities in bushfire prevention, response, and recovery efforts.

The Shire of Nannup Councilor's and Chief Executive Officer are responsible for the oversight and accountability of BRM Plan implementation. This includes ensuring that the BRM Plan's goals align with corporate policies, funding allocations, and annual objectives.

3.2 Land use and tenure

Understanding land tenure and how it influences bushfire risk ownership is a crucial element in bushfire risk management planning. Different land managers have varying levels of responsibility for bushfire risk reduction based on the type of land they manage and its location. This section highlights the importance of knowing who is responsible for managing bushfire risks on different land types and provides insights into vulnerable areas.

3.2.1 Summary of Land Tenure and Risk Ownership:

In the Shire of Nannup, land management influences risk ownership by setting parameters for who is responsible for managing bushfire hazards, how those risks are mitigated, and what strategies are implemented in vulnerable areas. Diverse land tenures distribute risk across private owners, Crown land, reserves and government-managed lands, while a coordinated effort among key land managers ensures that both widespread and local risks are addressed.

These main categories include:

- **Local Government Managed Land**: This includes public spaces, parks, and other areas under the direct management of the Shire. The local government is responsible for bushfire mitigation measures such as maintaining firebreaks and conducting hazard reduction burns. LG acts as the coordinator for bushfire risk across its jurisdiction, implementing and enforcing fire prevention measures through local laws and working with volunteer fire brigades to manage risks on local government-managed lands.
- **Crown Land**: Managed by state departments such as the Department of Biodiversity, Conservation, and Attractions (DBCA), Crown land typically includes national parks, reserves, and unallocated Crown land. These areas are often at higher risk of bushfires due to their dense vegetation. DBCA manage national parks and reserves, areas of high ecological value, and bushfire-sensitive species. DBCA is involved in prescribed burns and maintaining firebreaks on conservation land. DBCA is the state's largest bushfire mitigation managers with the largest tenure.
- **Forestry Areas**: Managed by entities such as Forest Products Commission (FPC), these areas are critical in fire management due to the economic value of timber and the need for comprehensive risk management strategies, including controlled burns and forest management practices. Fire management in plantation state and freehold owned by the state in commercial forest areas, conduct fuel load reduction and fire suppression efforts during high-risk periods. Mitigation is managed by contractors and their own fire managers statewide.
- **Department of Fire and Emergency Services (DFES):** Responsible for coordinating state-level bushfire response and providing funding for mitigation through the Mitigation Activity Fund. DFES manages fire risk in UCL, UMR and schools within the town boundaries. Managed by Bushfire Risk Management Officers.

Table 2 – Summary of land management responsibilities within the Shire of Nannup.

Land Manager	Local Government Area (%)
Local Government	1%
Private	17%
Department of Biodiversity, Conservation and Attractions	81%
Other State Government	1%
Total	100%

Source: DFES 2024

3.3 Community Demographics and Values

The Shire of Nannup has experienced a steady population growth of around 55% from 992 people in the 2011 census to 1538 people in the 2021 census. Whilst the population is increasing, it is still considered to be aging as the median age of residents within the Shire is 56 years old. The Western Australia state average is 38 years old.

The core demographic of older residents in Nannup consists of 652 people (42.5%) over the age of 55. This is reflected as an issue with an aging workforce and volunteer base that includes those involved in their local bushfire brigade.

The 2021 census also indicates the Shire consists of 51.7% males and 48.7% females with 48.9% in the labour force. It is estimated there are 40 Aboriginal and Torres Islander within the community.

The Shire of Nannup consists of more vulnerable areas to bushfires due to their location and proximity to high-risk vegetation. Rural settlements located near forests and bushland, are highly vulnerable. Communities such as those living near national parks or within forested regions need more robust mitigation strategies are:

- *Carlotta*
- *Cockatoo Valley*
- *Darradup*
- *Donnely River Village*
- *East Nannup*
- *Peerabeelup*
- *Biddelia*
- *North Nannup*

Popular locations such as campsites, wineries, walking and bike trails, and parks, especially during the dry season, can become hotspots for bushfires due to increased human activity. Facilities and infrastructure at these sites need to be fire-ready, with evacuation routes and fire-fighting equipment readily available.

Nannup experiences seasonal fluctuations in population due to tourism, especially during holiday seasons and events such as the Nannup Music Festival, Flower and Garden Festival, Forest Rally and several Bike events. Temporary residents and tourists may be unfamiliar with local bushfire risks, making them more vulnerable during emergencies.
The community is actively involved in managing bushfire risks through, Local volunteer fire brigades who play a crucial role in both firefighting and community education about fire risks. The Shire regularly holds information sessions to educate residents about bushfire preparedness, particularly before the fire season. These sessions focus on home protection, creating firebreaks, and developing evacuation plans.

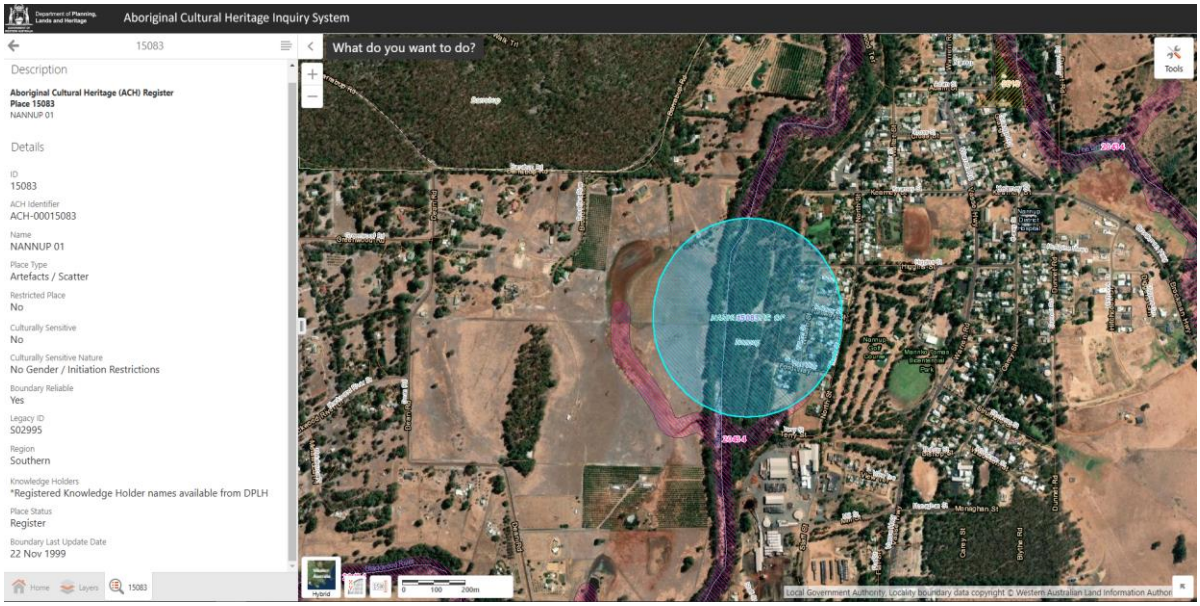
Image of North Nannup BFB

3.4 Cultural Heritage

Nannup is rich in European cultural heritage, encompassing numerous protected areas and heritage sites. Effective bushfire risk management in this region necessitates collaboration with key stakeholders and adherence to established engagement processes. The Shire of Nannup maintains a comprehensive Heritage List featuring 60 properties of cultural significance. Notable sites include:

- Donnelly River Mill and Townsite Precinct: Recognized on the State Register of Heritage Places, this site exemplifies mid-20th-century timber milling operations.
- Nannup Town Centre Precinct: This area showcases early 20th-century architecture, reflecting the town's historical development.
- Tathra Cottage: One of the earliest farm homesteads in the region, offering insights into early European settlement.

The Shire of Nannup contains important Aboriginal heritage areas and falls under several Indigenous Land Use Agreements (ILUAs) that influence land management, including bushfire risk mitigation. Aboriginal stakeholders, including Native Title Holders and Traditional Owners, play a vital role in shaping fire management practices to protect cultural heritage.



The *Aboriginal Heritage Act 1972* protects sites of cultural significance to Aboriginal communities. Several sites in the Shire of Nannup are listed in the Aboriginal Cultural Heritage Register. Notable sites include:

- Place 15083 (NANNUP 01): Recognized for artefact scatters, this site is protected and must be considered in any land or fire management activities to ensure cultural preservation.
- Place 5817 (NANNUP Camp): This historical camp is also listed and must be handled carefully during bushfire risk management.

The Shire is included in the following Indigenous Land Use Agreements (ILUAs):

- Wagyl Kaip & Southern Noongar Indigenous Land Use Agreement.
- Gnaala Karla Booja Indigenous Land Use Agreement.
- Southwest Boojarah #2 Indigenous Land Use Agreement.

These ILUAs cover land managed by the Noongar Traditional Owners and bind government agencies to follow specific procedures when conducting activities that may impact Aboriginal heritage sites. Under the agreements, the Noongar Standard Heritage Agreement (NSHA) must be followed for heritage surveys, ensuring any bushfire-related activities comply with Aboriginal heritage protection.

The Southwest Aboriginal Land and Sea Council (SWALSC) represents the interests of the Noongar people, including in bushfire risk management. Native Title Holders and Traditional Owners have deep knowledge of the land and its natural fire cycles, often practicing cultural burns (traditional fire management) to manage fuel loads and promote biodiversity.

The Shire of Nannup follows Aboriginal Heritage Due Diligence Guidelines as part of its engagement with Aboriginal stakeholders. These guidelines outline how to assess potential risks to heritage sites and engage with Traditional Owners for fire management activities. An Activity Notice is required before conducting any land management actions that could affect Aboriginal heritage, ensuring that the local Aboriginal community is consulted.

3.5 Economic Activities and Industry

The Shire of Nannup's economy, heavily reliant on natural resources, agriculture, tourism, and forestry, is vulnerable to bushfire risks. This section explores the potential impacts of bushfires on key economic activities, both in the short and long term, and assesses how these industries may contribute to or mitigate fire risks.

Several key economic sectors in Nannup are particularly vulnerable to bushfires:

- **Forestry and Timber Production**: the forestry industry, including plantations managed by the Forest Products Commission (FPC), is one of the largest employers in the region. Timber plantations are highly susceptible to bushfire damage, with fires posing a risk to both standing timber and forestry infrastructure. A significant bushfire could cause long-term economic damage to this industry by destroying valuable timber resources and disrupting supply chains.
- **Agriculture**: Farming activities, including livestock and crop production, are also at risk. Fires can destroy pasture, fences, and water supply infrastructure, causing immediate loss of income and long-term economic hardship as farmers rebuild. Livestock can also be severely affected, and recovery of farmland post-bushfire is often a slow process.
- **Tourism**: Nannup's tourism industry, which relies heavily on its natural environment and recreational activities, is vulnerable to the effects of bushfires. Many visitors are drawn to the Shire for its national parks, forests, and festivals. Bushfires can lead to immediate loss of revenue through event cancellations and a reduction in visitors during peak tourism seasons, with longer-term impacts as it takes time to rebuild tourist confidence.

  Short-term effects impact the destruction of infrastructure (e.g., farms, tourism facilities, and forest assets) and a halt in production across industries. Businesses, particularly small operations in agriculture and tourism, can experience substantial financial losses within days of a bushfire event.

  Long-term effects include the recovery from a major bushfire that can take years, especially in industries like forestry, where it takes time to replant and regrow timber stocks. Agricultural land may also require significant rehabilitation before it becomes productive again. The tourism sector may face reduced visitor numbers long after the fire due to perceptions of the area being unsafe or unattractive.

Certain economic activities in the Shire of Nannup have the potential to increase bushfire risks:

- **Agricultural Practices:** Open burning of stubble or agricultural debris, common in farming, can increase the risk of bushfires if not managed properly. Furthermore, poorly maintained farmland with high fuel loads (dry grass or dense vegetation) near boundaries can contribute to fire spread.
- **Forestry Operations:** Timber plantations, particularly during the dry season, can accumulate high fuel loads, making them susceptible to bushfires. Activities such as logging and clearing debris can increase the likelihood of fire ignition if not conducted under strict safety protocols.

Several strategies have been implemented to mitigate bushfire risks related to economic activities, these include:

- Fuel Load Reduction and Firebreaks.
- Fire Management Plans.
- Tourism Emergency Planning.

By addressing the vulnerabilities and risks associated with key industries, the Shire of Nannup can build greater resilience into its local economy, reducing the long-term impacts of bushfires on its industries and workforce.

3.6 Topography and Landscape Features

The geographical features of the Shire of Nannup play a significant role in shaping bushfire risk and influencing fire behavior. The landscape's natural characteristics not only affect the likelihood of fires spreading but also present challenges to bushfire response and mitigation efforts. Some significant landscape features that influence fire behavior:

- Forested Areas.
- Undulating Terrain and Hills.
- Watercourses and Riparian Zones.
- Remote and Isolated Areas.
- Steep Slopes and Rocky Terrain.
- Dense Vegetation.

Recognising the proximity of landscape features to important assets and prioritizing the mitigation works required for the protection of such assets is vital.

- **Residential and Agricultural Areas:** Many residential communities and farms are located near or within bushland, making them vulnerable to bushfires. The proximity of homes, livestock, and crops to forested areas means that a fire could cause significant damage in a short time. Communities situated near the Blackwood River Valley or the forested slopes are particularly at risk due to the fast-moving nature of fires in these environments.
- **Tourism and Recreation Areas:** Popular tourist sites such as camping grounds and national parks are often located within fire-prone landscapes. The Nannup Music Festival and other events attract large numbers of visitors, who may be unfamiliar with local fire risks. Ensuring that emergency evacuation routes are accessible and well-signposted is critical in these areas.
- **Critical Infrastructure***:* Roads, power lines, and communication infrastructure that serve the region may be impacted by fires in remote or forested areas. Main transport routes, particularly those connecting isolated communities, need to be protected to ensure evacuation and firefighting efforts are not hindered during an emergency.

3.7 Climate and Weather

The climate and weather patterns in the Shire of Nannup play a critical role in determining bushfire risk throughout the year. The region’s Mediterranean climate, characterised by hot, dry summers and cool, wet winters, significantly affects fire behavior and management strategies.

Summer (December to February) temperatures:

- Average daytime temperatures range from 28°C to 34°C, with occasional heatwaves pushing higher temperatures. These hot conditions dry out vegetation, increasing the likelihood of fire outbreaks.
- Average Monthly Maximum Temperature: Peaks in summer, with January and February showing the highest values, aligning with the fire season.
- Average Monthly Fire-Prone Days (≥30°C): January and February have the most fire-prone days, with a gradual decline into the cooler months.

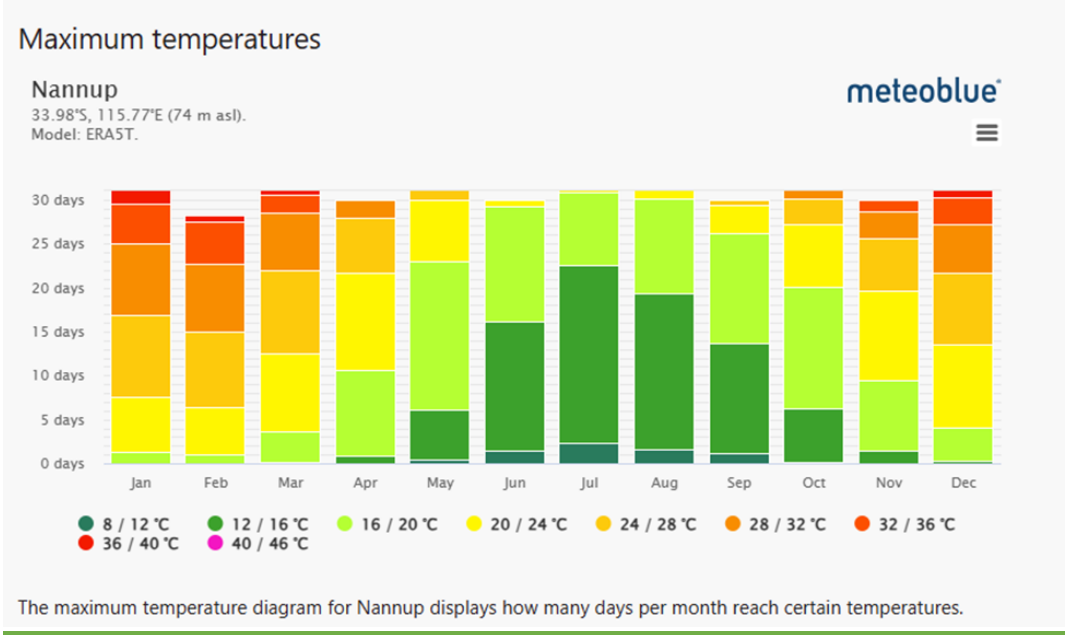
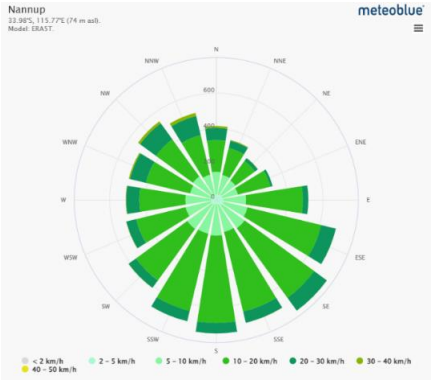


Table 3 shows Maximum Temperatures in Nannup, Source from Meteoblue

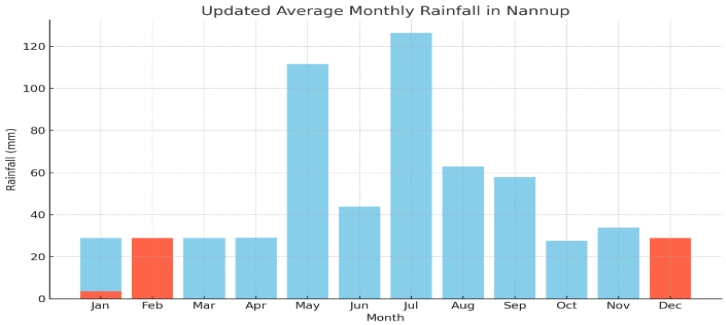
This provides a comprehensive overview of how temperature, rainfall, and wind conditions combine to influence fire risk in Nannup.

A note on "*Strong Northeasterly Winds*" emphasizes low these winds can increase fire spread during the summer months by carrying embers over distances, making fires more challenging to control



Sources from Meteoblue Table 5 Illustrates the impact of wind on fire risk

Table 4 shows the Average Monthly Rain Fall



Winter is the wettest season, with rainfall peaking in July. The region receives about 900 mm of rain annually, with the majority falling between May and September.

Summer months are typically dry, receiving minimal rainfall, which exacerbates fire risks due to the accumulation of dry fuels (dead grass, leaves, and underbrush).

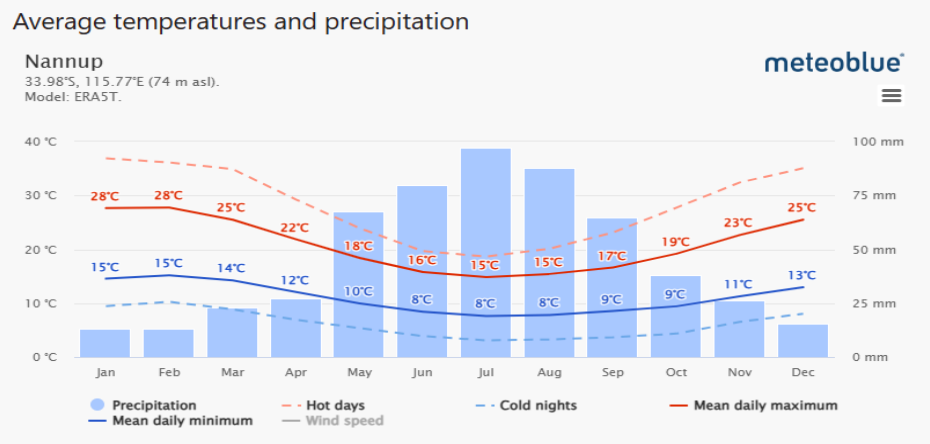


Table 6 Average Temperatures and Precipitation in Nannup - Source from Meteoblue

Temperatures: Cooler, with average daytime temperatures between 10°C and 18°C.

These cool and wet conditions promote vegetation growth, which can increase fuel loads for the next summer's fire season if not managed.

The bushfire season in Nannup runs primarily through summer (December to February) and may extend into early autumn. During this period, the hot, dry conditions create ideal circumstances for bushfires to ignite and spread.

Controlled burns are typically conducted in the autumn (March to May) and spring (September to November). These seasons offer cooler temperatures and moderate rainfall, which reduces the risk of fire spreading uncontrollably. Planned burns are essential for reducing fuel loads in high-risk areas like forests and near residential zones.

Extreme heat combined with low humidity during summer months can lead to severe fire conditions. When temperatures rise above 35°C, the risk of fire increases dramatically, particularly if the wind is strong. North Easterly winds, often occurring during heatwaves, can rapidly carry embers over large distances, increasing the potential for spot fires. These winds make it difficult for firefighters to contain fires and increase the threat to nearby assets.

Lightning storms during periods of low humidity and dry conditions can ignite fires in remote and heavily forested areas. These fires are particularly dangerous as they can go undetected for long periods before spreading into populated areas.

Assets such as homes, farms, and tourism infrastructure located near bushland are particularly vulnerable during hot, windy days. The rapid spread of fire can increase the risk to these assets, particularly during the dry summer months when vegetation is most flammable.

Extreme weather conditions can restrict bushfire mitigation efforts:

- **Wind:** Strong winds make aerial firefighting difficult and can limit the effectiveness of controlled burns or backburning operations.
- **High Temperatures:** Firefighters face greater risks when working in extreme heat, limiting their operational hours and effectiveness in containing fires.
- **Dry Conditions:** Extended periods of drought, which may become more frequent due to climate change, can lengthen the fire season and reduce the time available for planned burns or other fuel reduction efforts.

3.8 Vegetation and Fuel

Vegetation plays a significant role in the bushfire risk within the Shire of Nannup. The type, structure, and distribution of vegetation directly affect fire behavior, intensity, and spread. Understanding the local vegetation and its potential as fuel is essential for effective fire management and risk mitigation.

3.7.1 Major Vegetation Types and Their Role in Bushfire Behavior:

- **Jarrah and Karri Forests:** These are dominant vegetation types in the Shire of Nannup, covering large areas of forest. Jarrah forests typically feature tall, dense trees with a significant accumulation of undergrowth and leaf litter, which serve as fuel for fires. Fires in jarrah forests can be intense and fast-spreading due to the combination of flammable canopy and ground fuels. Karri forests, on the other hand, are more moisture-dependent but can still pose a high fire risk during dry conditions. The height and density of karri trees mean that fires in these forests can reach the canopy, leading to crown fires, which are difficult to control and can spread quickly.
- **Heathland and Scrub:** Areas of low vegetation, such as heathlands and scrub, are also common in parts of the Shire. These vegetation types are characterized by dense, low-growing plants that can dry out quickly in summer, creating a highly flammable fuel load. Fires in heathlands tend to spread rapidly due to the fine, continuous fuels and the proximity of vegetation to the ground.
- **Grasslands and Agricultural Areas**: Grasslands and farmlands, including those used for grazing, are found throughout the Shire. During the dry season, grass becomes a significant fire hazard. Grassfires are typically fast-moving and can engulf large areas quickly, particularly in windy conditions. Managed farmlands with reduced fuel loads (through grazing or mowing) may pose a lower risk, but uncontrolled grassfires can threaten nearby communities and infrastructure.

Image of Jarrah and Karri Forest in Nannup

- **Fuel Load:** The quantity and type of fuel present in an area greatly influence how a bushfire behaves. In the Shire of Nannup, the combination of dense forests, undergrowth, and dry grass creates a highly flammable environment. Accumulated leaf litter, dead trees, and fallen branches can increase the intensity of fires by providing abundant ground fuel that allows the fire to burn hotter and longer.
- The arrangement of vegetation also affects fire spread. For example, continuous vegetation (i.e., without breaks or clearings) allows fires to move rapidly from one area to another, increasing the size and intensity of the fire. In contrast, fragmented vegetation or clear areas can slow down fire spread, allowing more time for firefighting efforts and evacuation

3.7.2 Distribution of Vegetation in Relation to Important Assets:

- **Proximity to Residential Areas:** Many homes and communities in the Shire of Nannup are located close to bushland or forested areas. This proximity to dense, flammable vegetation increases the bushfire risk to residential properties, especially during the peak fire season. The creation of Asset Protection Zones (APZs) and the enforcement of firebreaks around these assets are critical in reducing the bushfire hazard posed by nearby vegetation.
- **Agricultural and Economic Assets:** Farms and plantations, particularly those located near forested regions, are at high risk from both grassfires and forest fires. For instance, forestry plantations managed by the Forest Products Commission (FPC) are often situated near jarrah and karri forests, which can act as conduits for fire spread if not properly managed.
- **Tourist and Recreational Areas:** Many of the Shire's tourist attractions, such as campsites, hiking trails, and national parks, are located within or adjacent to high-risk vegetation zones. During bushfire season, these areas face a heightened risk due to the influx of visitors and their proximity to fire-prone forests and heathlands.

3.9 Important Species and Communities

The Shire of Nannup is home to various species and communities that are protected under state and Commonwealth legislation, many of which are fire sensitive. Effective bushfire management must account for the protection of these environmental assets to ensure the long-term survival of vulnerable species and ecological communities.

Species Protected under State and Commonwealth Legislation:

Species Name	Conservation Status	Legislation
Western Ringtail Possum	Critically Endangered	EPBC Act 1999, WA Biodiversity Act 2016
Baudin's Black-Cockatoo	Endangered	EPBC Act 1999, WA Biodiversity Act 2016
Numbat	Endangered	EPBC Act 1999, WA Biodiversity Act 2016
Carnaby's Black-Cockatoo	Endangered	EPBC Act 1999
Banksia Woodlands	Vulnerable	EPBC Act 1999
Jarrah Forests	Vulnerable	WA Biodiversity Act 2016

Table 7 indicates Species and Communities protected in Shire of Nannup

Images of Species and Communities Protected under Legislation

The Shire contains several species and ecosystems that are protected under both the *Western Australian Biodiversity Conservation Act 2016* and the Commonwealth Environment Protection and Biodiversity Conservation (EPBC) Act 1999. These species and communities are essential to local biodiversity and are valued by the community.

3.8.1 Protected Species and Communities

- Western Ringtail Possum (Pseudocheirus occidentalis).
- Baudin's Black-Cockatoo (Calyptorhynchus baudinii).
- Numbat (Myrmecobius fasciatus).
- Southern Jarrah Forest.

3.8.2 Fire-Sensitive Environmental Assets Valued by the Community

Certain local ecosystems and species hold significant ecological, cultural, and social value for the Nannup community. These include:

- **Wetlands and Riparian Zones:** The wetlands and riparian areas, particularly along the Blackwood River, are home to unique species and provide important water resources. Fire-sensitive species in these areas can be severely impacted by uncontrolled burns, leading to long-term ecological damage.
- **Flora such as Banksia and Grass Trees:** Banksia woodlands and grass trees (Xanthorrhoea species) are important components of the local flora. These plants are fire-adapted but sensitive to frequent or high-intensity fires, which can disrupt their regenerative cycles.

To maintain ecological balance and protect vulnerable species and communities, bushfire management plans must implement appropriate fire regimes. These may include, low-intensity controlled burns, extended fire-free intervals, seasonal restricted burning and avoidance of sensitive areas.

3.10 Historical Bushfire Occurrence

The data below has been provided by the Department of Fire and Emergency Services which demonstrates bushfire occurrence since 2020 in the Shire of Nannup:

Ignition Cause	2020/2021	2021/2022	2022/2023	2023/2024	2024/2025
Burn off fires	3	3	3	5	1
Cigarette	0	0	1	0	0
Electrical distribution (excl. power lines)	0	1	0	0	0
Equipment - Mechanical or electrical fault	0	0	1	0	0
Hot works (grinding, cutting, drilling etc..)	1	0	0	0	0
Reignition of previous fire	0	0	1	0	0
Suspicious/Deliberate	3	2	1	1	1
Unreported	7	8	4	7	25
Vehicles (incl. Farming Equipment/Activities)	0	0	0	1	0
Weather Conditions - Lightning	3	0	0	2	0
Weather Conditions (High winds, natural combustion etc. Excludes Lightning)	0	1	2	1	1
Yard maintenance, hand held equipment	1	0	0	0	0

Table 8 Summary of Bushfire Occurrence in the Shire of Nannup

It should be noted that 'unreported' fires cab mean that a cause was not provided by either responding to brigades or the person reporting the fire to DFES. This category contains a composition of any of the categories contained in this report.

The most leading causes of fires in the Shire of Nannup are:

- Lightning Strikes,
- Human Activities,
- Powerline Faults,
- Escaped Planned Burns.

3.9.1 Historical Fires of Significance

Blackwood River Fires: Over the years, several fires have occurred along the Blackwood River, often caused by lightning or human activities. These fires have highlighted the challenges of fighting fires in remote, steep terrain and have led to improvements in aerial firefighting techniques to access difficult areas.

2015 Northcliffe Fire: Although centered to the south of Nannup, the Northcliffe fire in 2015 burned approximately 98,000 hectares and had ripple effects throughout the region, including Nannup. The fire was fueled by dense vegetation and hot, dry conditions. Lessons from this event emphasized the importance of:

3.9.2 Community Education and Lessons Learned

Many historical fires have demonstrated that well-prepared communities are more resilient. Increased focus on educating residents about creating defensible space around homes, the importance of firebreaks, and how to prepare properties for bushfire season has become a priority in recent years.

Lessons from past fires have highlighted the need for better fuel load management. Controlled burns, particularly in areas prone to bushfires like the Jarrah Forests, help reduce the risk of large-scale fires. Ensuring that firebreaks are maintained around critical infrastructure and residential areas is also essential.

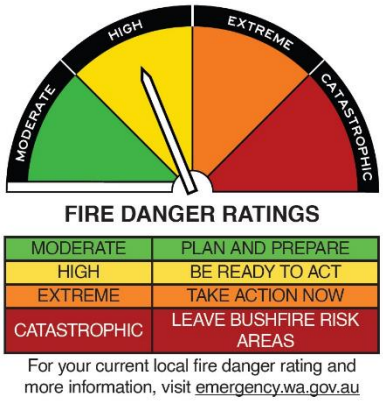
The response to fires has improved significantly due to lessons learned from previous events. Agencies such as the Department of Fire and Emergency Services (DFES), DBCA, and local fire brigades now work closely to develop unified fire management strategies and coordinated responses to emergencies.

3.11 Current Bushfire Risk Management Controls

The Shire of Nannup implements a range of legislative, community, and operational controls to manage bushfire risk. These controls are designed to reduce fire hazards, protect the community, and ensure preparedness during bushfire seasons. Below are the key components of the current bushfire risk management approach:

- Distribution and enforcement of Bush Fires Act 1954 Section 33 notices: (Fire Break Notice)
- Declaration and management of Prohibited Burning Times (18 December to 28 March) and Restricted Burning Times (3 November to 17 December and 29 March to 28 April)
- Implementation of Local Law, policies and Bushfire Operating Procedures
- The Shire of Nannup adheres to various State Government Policies and Memoranda of Understanding (MOUs), particularly regarding fire management on Crown land and areas managed by DBCA.
- The Blackwood Valley Regional Inter-Agency Zone Response MOU covers an area identified along a section of the Blackwood River within the Shires of Bridgetown – Greenbushes, Donnybrook – Balingup and Nannup
- Community support and education for planned burns on private property.
- Community Bushfire Preparedness and Information days
- Mitigation Activity Fund (MAF) Grants: The Shire of Nannup applies for state funding through the Mitigation Activity Fund (MAF), which supports fire risk reduction activities such as creating firebreaks, managing vegetation, and conducting hazard reduction burns.

- *Australian Fire Danger Rating System (AFDRS)*



The Australian Fire Danger Rating System (AFDRS) is used to trigger fire restrictions and communicate the level of bushfire threat to the community. The Shire monitors fire danger ratings daily, and when the Fire Danger Index (FDI) reaches Very High or above, fire bans and public warnings are issued. This system helps to inform the public of bushfire risk and provide guidance on appropriate actions, such as avoiding outdoor fire activities and preparing evacuation plans.

- Adhering to State Planning Policy 3.7 (Planning in Bushfire Prone Areas), which requires developments in identified bushfire-prone zones to undergo Bushfire Attack Level (BAL) assessments.
- The Shire of Nannup manages 9 Bushfire brigades with 8 permanent appliances (listed below) who are also supported by a State Emergency Service and Volunteer Fire and Rescue Service with 2 appliances. (DFES managed)
  - Balingup Road
  - Carlotta 2.4
  - Cundinup LT
  - Darradup LT and 4.4
  - Nannup Brook 4.4
  - Nannup East 2.4
  - North Nannup 4.4
  - Peerabeelup
  - Scott River/ Jasper LT

A list of Local Government Wide Controls for reducing bushfire risk in the Shire of Nannup is provided at **Appendix B**.

Chapter 4 Asset identification and risk assessment

Assets at risk from bushfire in The Shire of Nannup are recorded in the *Asset Risk Register* in the BRMS. Assets are divided into four categories: human settlement, economic, climate, and cultural. Each asset has been assigned a bushfire risk rating between low and extreme based on the risk assessment methodology described in the Guidelines and Handbook.

4.1 Identifying and assessing systemic risk

Systemic risk refers to the potential impacts of a bushfire on interconnected systems and networks that sustain communities. It recognises that a single bushfire event can set off a chain reaction with impacts that extend beyond the fire's location. These may affect the social fabric, economy, and environment of the district and can persist long after the fire has been extinguished.

Systemic risks considered relevant to BRM for The Shire of Nannup are provided in **Appendix A**.

Systemic risk refers to the cascading effects that a bushfire event can have on interconnected systems, including economic, social, and environmental networks. These effects can extend well beyond the immediate area of the fire and have long-lasting impacts on a region's ability to recover. The assessment of systemic risks for the Shire of Nannup focuses on how these interconnected systems might be disrupted and the wider impacts of a single bushfire event.

4.1.1 Identification of Systemic Risks:

- Critical Infrastructure
  - Electricity and Power Networks
  - Water Supply and Treatment Facilities
  - Transportation Network
- Economic Dependencies
  - Tourism Industry
  - Agriculture and Forestry
- Social Fabric
  - Health Services
  - Community Resilience
- Environmental Assets
  - Biodiversity Loss
  - Water Quality

4.2 Local Government Asset Risk Profile

A summary of the risks assessed in The Shire of Nannup is shown in Table 9. This table shows the proportion of assets at risk from bushfire in each risk category at the time the BRM Plan was endorsed. This table was correct at the time of publication but may become outdated as risks are treated, or additional risks are identified and assessed. A report may be generated from the BRMS to provide the most current risk profile.

Asset Category	Risk Rating					
		Low	Medium	High	Very High	Extreme
	Human Settlement	*12.0%*	*6.0%*	*21.0%*	*10.0%*	*28.0%*
	Economic	*3.0%*	*4.0%*	*2.0%*	*4.0%*	*4.0%*
	Environmental	*0%*	*1.0%*	*2.0%*	*0%*	*0%*
	Cultural	*0%*	*0%*	*1.0%*	*0%*	*0%*

Table 9 – Local Government Asset Risk Summary

Chapter 5 Risk evaluation

5.1 Risk Acceptance Criteria

The acceptable level of risk for each asset category is shown in Table 10. A risk that is assessed as exceeding these limits will be considered for treatment.

	Asset category			
	Human settlement	**Economic**	**Environmental**	**Cultural**
Acceptable risk level	**3 (High)**	**3 (High)**	**3 (High)**	**3 (High)**

Table 10 – Risk acceptance criteria for bushfire risk in The Shire of Nannup.

Risks below the acceptable level do not require treatment during the life of this BRM Plan. They will be managed by routine Local Government Wide Controls and monitored to detect any increase in their risk rating.

5.2 Treatment Priorities

The treatment priority for each asset is automatically assigned by BRMS, based on the asset's risk rating. Table 11 shows how consequence and likelihood combine to give the risk rating and subsequent treatment priority for an asset. The treatment priority assigned in BRMS will help inform decision making for risk acceptability and development of the Treatment Strategy and schedule.

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

Table 11 – Treatment priorities

Chapter 6 Risk Treatment

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

6.1 Treatment Strategy

The Treatment Strategy describes the overall approach to managing bushfire risk in the medium to long term in The Shire of Nannup. The strategy is shaped by factors such as the distribution of risk in the landscape, the community's values and objectives, stakeholders' mitigation programs and constraints on treatment options. The Treatment strategy helps guide the development of integrated annual treatment schedules.

The Shire of Nannup's strategic objectives for bushfire risk management are designed to safeguard lives, property and local communities, including those of Traditional Owners. These local communities will include areas like Cockatoo Valley, Jalbarragup, Cundinup and North Nannup. These objectives emphasize the importance of community safety, cultural heritage, and environmental preservation, ensuring that risk mitigation measures are aligned with the social and cultural fabric of the Shire.

The strategy considers diverse land use patterns and the needs of sensitive industries such as agriculture, tourism, and forestry. It also considers natural influences—such as topography, vegetation, and weather—that dictate how bushfires spread and intensify. Steep slopes, dense forests, and local climatic conditions play a critical role in The Shire of Nannup, determining where and how bushfire management practices should be applied, with tailored measures developed to address each landscape type and industry need.

The Shire's approach by working collaboratively with residents, rural stakeholders and plantation owners has established a bushfire risk management plan and the strategies to reduce these fuel loads by controlled burns, firebreaks, and community education initiatives. These programs are implemented while navigating environmental or other constraints on treatment options, ensuring that interventions not only reduce risk but also maintain ecological balance and respect for local cultural practices.

6.2 Treatment Schedule

The Treatment Schedule is a list of bushfire risk treatments recorded in the BRMS. It is developed regarding the outcome of the risk assessment process and Treatment Strategy and in consultation with stakeholders.

A treatment schedule for The Shire of Nannup covering the 2025-2026 financial year has been entered into BRMS. This is a live document and will be regularly updated throughout the life of the BRM Plan.

Land managers are responsible for implementing agreed treatments 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 manager.

6.3 Systemic risk treatment

Systemic risk refers to the risk that affects not only the primary target but also spreads through interconnected systems, causing widespread disruption. The Shire of Nannup focuses on enhancing community resilience and the networks supporting essential services. This section will summarise how systemic risks identified in **Appendix A** will be addressed, including interventions, responsible entities, stakeholders, and necessary future actions.

6.3.1 Treatments, Responsible Entities, and Stakeholders

- Critical Infrastructure Protection

  Treatments*:*

  - Creating firebreaks around key electrical transmission lines, communication towers, and water treatment facilities.
  - Implementing automatic monitoring systems that trigger preventive measures (e.g., isolation of power lines) in case of fire.
  - Installing emergency sprinklers around critical utility points.
  - **Responsible Entities**: Local government (Nannup Shire Council), utility providers (Western Power, Water Corporation).
  - **Stakeholders**: State Emergency Services (SES), bushfire response teams, utility companies, landowners near critical infrastructure.

- Emergency Services Coordination:

  Treatments:

  - Upgrading communication systems with backup satellite links or independent radio systems.
  - Conducting regular multi-agency drills and ensuring continuous training for emergency responders.
  - **Responsible Entities**: Local emergency services (SES), Fire and Emergency Services Authority (FESA), Department of Fire and Emergency Services (DFES).
  - **Stakeholders**: Police, medical services, community health officers, volunteer fire brigades

- Community and Health Systems

  Treatments:

  - Establishing and reinforcing local evacuation centres with fireproof designs, backup generators, and sufficient supplies
  - Educating the community on emergency preparedness and creating community-led resilience programs.
  - **Responsible Entities**: Local government, Department of Communities, Red Cross.
  - **Stakeholders**: Community groups, local residents, NGOs, health service providers.

- Transportation and Access

  Treatments:

  - Creating alternative transportation routes and maintaining firebreaks around key access roads
  - Ensuring bridges and critical roadways are regularly inspected and enhanced for bushfire resilience.
  - **Responsible Entities**: Local government, Main Roads WA.
  - **Stakeholders**: SES, fire brigades, logistics and supply companies.

Future efforts of the Shire of Nannup will focus on a multifaceted approach that includes regular risk assessments and infrastructure audits to monitor and improve the integrity of critical facilities under changing environmental conditions. These are driven by climate change; continuous community engagement and training programs designed to empower residents in bushfire preparedness and recovery, with regular evaluation to ensure effectiveness; the enhancement of fire monitoring systems, weather prediction tools, and automated fire-detection systems to prevent systemic disruptions.

By taking these proactive measures, the Shire of Nannup ensures that a coordinated effort between responsible entities and stakeholders will strengthen community resilience and mitigate the impact of future bushfire events.

Chapter 7 Monitoring and review

Monitoring and review processes are in place to ensure that the BRM Plan remains current and considers the best available information.

7.1 Monitoring and review

The Shire of Nannup will monitor the BRM Plan and BRMS data to identify any need for change. The Plan and BRMS data will be reviewed at least every two years to ensure they continue to reflect the local context, assets at risk, level of risk and treatment priorities.

7.2 Reporting

The Shire of Nannup CEO or their delegate will provide OBRM the outcomes of biennial reviews of the BRM Plan. This is required to maintain OBRM endorsement of the Plan.

The Shire of Nannup will contribute information about their BRM Program to the annual OBRM *Fuel Management Activity Report*.

Glossary

Asset	Something 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 Risk Register	A component within the Bushfire Risk Management System (BRMS) used to record 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 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.
Landowner	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.
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 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 Treatment	A process to select and implement appropriate measures undertaken to modify risk.
Systemic Risk	The impacts of bushfire on the interconnected systems and networks that support community function. It is a product of the disruption caused by fire to the community and its effects may be felt far from the direct impacts of the fire in both time and space.

Treatment Objective	The aim to be achieved by the treatment. Treatment objectives should be specific and measurable.
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 general approach that will be taken to managing bushfire risk, in consideration of the local government context and objectives.
Treatment Type	The specific treatment activity that will be implemented to modify risk, for example a planned burn.

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

Appendices

Appendix A Systemic risk

Appendix B Local Government Wide Controls

Appendix C Communication Plan

Appendix D Annual review checklist

Appendix A – Systemic Risk

Systemic risk		Risk rating	Control point	Treatment	Lead agency or stakeholder(s)	Notes and comments
Ref #	Describe the systemic risk i.e. direct impact, subsequent impacts etc.	Provide the result of the risk assessment.	Describe the intervention or control point.	Describe the treatment to be applied at the intervention or control point.	Who is the agency responsible for implementation of the treatment? Are there any other key stakeholders who contribute to the success of the treatment?	Provide a brief description of how the control activity will contribute to bushfire risk management in the local government, key timeframes and any future work that will be required to improve or maintain the control.
1	Power and communication outages due to bushfire damage to infrastructure (power lines, towers, etc.)	High	Critical infrastructure points (powerlines, communication towers)	Implement firebreaks around powerlines and towers, install fire-resistant materials, upgrade monitoring systems for early detection and shutdown.	Western Power, Local Government, SES, DFES	This control will prevent cascading failures in communication and electricity during bushfires. Regular inspections and vegetation management will be required to maintain the control.
2	Disruption to emergency services coordination due to communication failure	High	Backup communication systems	Install satellite and independent radio communication backup systems for emergency services	Local Emergency Services, FESA, DFES, Police	This treatment ensures continuous coordination of emergency services during bushfire events. Periodic testing of backup systems will be required.
3	Access roads blocked or destroyed, impeding emergency response and evacuation efforts	Medium	Key transportation routes (roads and bridges)	Maintain firebreaks around access roads, establish alternative transportation routes, and strengthen vulnerable bridges.	Local Government, Main Roads WA, SES, DFES	Critical to ensure emergency services and residents can evacuate or respond quickly. Annual maintenance and reviews are required for continued resilience.
4	Loss of water supply due to damage to water infrastructure (treatment plants, reservoirs)	Medium	Water treatment plants and supply lines	Establish firebreaks around water infrastructure, install sprinklers, and reinforce critical assets with fire-resistant materials.	Water Corporation, Local Government, SES, DFES	Ensures continuous access to clean water during and after a bushfire event. Regular inspections and vegetation management will maintain control.
5	Community health and safety at risk due to insufficient evacuation centers and health services	High	Evacuation centers and health facilities	Upgrade existing evacuation centers to be fire-resistant, install backup generators, and stockpile necessary supplies. Conduct community education programs	Local Government, Red Cross, Department of Communities	Provides safe refuge and health services during bushfire events. Future improvements may include adding more shelters and increasing supplies in high-risk areas.
6	Delays in community recovery due to lack of preparedness and resilience programs	Medium	Community engagement and education	Increase community-driven preparedness programs, establish local resilience networks, and conduct regular bushfire drills.	Local Government, Community Groups, DFES, NGOs	Empowers the community to actively manage bushfire risks and aids in quicker recovery post-event. Future work includes continuous education and program assessments.

Add rows as required Key Notes:

Timeframes: Controls and treatments are designed to be implemented immediately and maintained annually or biannually, depending on the risk assessment.

Future Work: Continuous risk assessments, improvement of emergency services coordination, and community awareness programs are essential to sustaining these systemic controls. Regular updates to bushfire management plans and technology upgrades will help adapt to changing environmental conditions.

Additional rows can be added to the template as needed for other systemic risks identified during the risk management planning process.

Appendix B – Local Government Wide Controls

Control		Action or activity description	Lead agency	Other stakeholder(s)	Notes and comments
Ref #	What is the control in place?	What is the name of the specific action or activity?	Who is the agency responsible for implementation of the control?	Are there any other key stakeholders who contribute to the success of the control?	Provide a brief description of the action or activity, such as community education campaigns, including its contribution to bushfire risk management in the local government, target areas, key timeframes and any work being undertaken to improve the control.
1	Vegetation Management	Regular vegetation clearing and firebreak maintenance around critical infrastructure and residential areas.	Local Government (Shire of Nannup)	Department of Fire and Emergency Services (DFES), Local Landowners	Vegetation management reduces fuel loads and minimizes fire spread. Target areas include urban-rural interfaces and critical infrastructure zones. Ongoing yearly reviews and actions are undertaken during fire season.
2	Community Bushfire Preparedness Programs	Community engagement and bushfire preparedness workshops.	Local Government, DFES	Community Groups, Volunteer Fire Brigades	These workshops educate residents on bushfire survival plans, property protection, and evacuation routes. Conducted before the fire season in high-risk areas. Future improvements focus on increased participation and digital access to resources.
3	Prescribed Burns	Controlled burns in fire-prone areas to reduce fuel loads.	DFES	Local Government, Fire Brigades, Landowners	Prescribed burns are strategically planned during cooler months to safely reduce vegetation. Focus areas include forests, rural properties, and nearby communities. Constant coordination with landowners is essential.
4	Bushfire Early Warning Systems	Implementation and maintenance of early warning and alert systems (SMS, radio).	DFES	Local Government, Bureau of Meteorology (BOM)	Early warning systems provide rapid alerts for residents during high-risk periods. Systems are tested regularly, and improvements are focused on increasing alert coverage and reducing response times.
5	Emergency Evacuation Planning	Development and updating of evacuation plan for high-risk communities.	Local Government, DFES	Police, SES, Red Cross	Evacuation routes and safe centers are clearly identified and communicated to residents. Regular drills are conducted to ensure preparedness. Plans are updated annually, particularly before bushfire season.
6	FirefightingEquipment Maintenance	Maintenance of fire hydrants, water tanks, and firefighting equipment across the region.	Local Government, Volunteer Fire Brigades	DFES, Water Corporation	Ensures that firefighting resources are operational and accessible during bushfires. Equipment is inspected biannually and during high-risk fire season. Future improvements may include upgrading infrastructure and increasing equipment accessibility in remote areas.
7	FirebreakCompliance Inspections	Inspections to ensure that private properties maintain required firebreaks and hazard reductions.	Local Government	Landowners, DFES	Inspections are conducted annually before the fire season. Property owners are informed of firebreak requirements, and non-compliance is addressed. This ensures reduced risk of fire spread across properties.

8	**Public Awareness Campaigns**	**Public campaigns (media, social media, flyers) about fire risks and safety measures.**	**Local Government**	**DFES, Media Outlets, Community Groups**	**The campaigns raise awareness about fire bans, safe practices, and emergency protocols. They are rolled out leading up to the fire season and during high-risk periods. Focused on improving public knowledge and compliance.**
9	**Access Road Maintenance**	**Maintenance of key access roads and fire access tracks.**	**Local Government, Main Roads WA**	**DFES, SES**	**Ensures that emergency services and evacuation routes are unobstructed and safe during bushfire events. Key roads are inspected and cleared regularly, especially during peak fire season.**
10	**Strategic Firefighting Resource Allocation**	**Allocation of firefighting resources (personnel, vehicles) to high-risk areas during peak fire season.**	**DFES**	**Local Government, Volunteer Fire Brigades**	**Resource allocation ensures that high-risk areas are adequately supported. Coordination between brigades and local government ensures quick response times. Ongoing reviews aim to optimize resource allocation based on fire risk assessments.**

Add rows as required Key Notes:

- Timeframes: Most controls are implemented throughout the year, with intensive efforts during the bushfire season (typically spring and summer).
- Future Work: Many of these activities, particularly vegetation management and community engagement programs, are continuously evolving. Regular audits, risk assessments, and community feedback help to identify areas for improvement. Technology upgrades and better integration of digital systems (e.g., apps, social media for warnings) are also part of future plans.

Appendix C – Communication Plan

This Communication Plan supports the development, implementation and review of the Shire of Nannup Bushfire Risk Management (BRM) Plan. It should document the:

- Communication objectives.
- Roles and responsibilities.
- Key stakeholders engaged in the development of the BRM Plan and Treatment Schedule.
- 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.

Communication Objectives

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

- ***Clear and Transparent Communication Channels Established***
  Establish clear and accessible communication channels between the local government, emergency services, and the community to ensure information flows effectively throughout all phases of the BRM planning process.
- ***Increase Public Awareness of Bushfire Mitigation Strategies***
  Ensure that the general public, especially landowners in fire-prone areas, are well informed about bushfire mitigation strategies and can access resources to assist in risk reduction on their properties.
- ***Encourage Active Participation from Diverse Community Groups***
  Foster engagement from diverse community groups, including indigenous communities, rural landowners, and those in high-risk zones, ensuring that all perspectives are considered in the BRM Plan.
- ***Monitor and Adjust Communication Strategies Based on Feedback***
  Implement ongoing monitoring of communication efforts, with a mechanism to gather feedback from stakeholders to adjust strategies for better clarity, inclusiveness, and effectiveness.
- ***Support Ongoing Training and Development for Stakeholders***
  Provide ongoing education and training for key stakeholders, ensuring they have the skills and knowledge needed to contribute effectively to bushfire risk management and treatment implementation.

These objectives would ensure a comprehensive approach to communication, ensuring stakeholders are well-informed, actively participating, and that communication strategies are adaptable based on feedback.

Roles and responsibilities

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

- CEO for the Shire of Nannup is responsible for requesting OBRM to endorse the BRM Plan.
- Director, Communications and Media Team for the Shire of Nannup is responsible for communication of the BRM Plan to the community.
- Bushfire Risk Mitigation Coordinator is responsible for communication between the local government and the Department of Fire and Emergency Services.

The Shire of Nannup is responsible for the development, implementation, and review of the Communication Plan. Key stakeholders support the local government by participating in the Communication Plan as appropriate. Below is an overview of the roles and their communication responsibilities:

CEO, Shire of Nannup

Responsible for requesting the Office of Bushfire Risk Management (OBRM) to endorse the BRM Plan and ensure all high-level approval processes are completed.

Director, Communications and Media Team, Shire of Nannup

Responsible for managing and overseeing all external communications related to the BRM Plan, including public announcements, media releases, and engagement with the community through social media, newsletters, and local media outlets.

Ensures that key messages are consistently communicated to the community, landowners, and businesses regarding their roles and responsibilities in bushfire risk management.

Bushfire Risk Mitigation Coordinator, Shire of Nannup

Serves as the primary point of contact between the local government and the Department of Fire and Emergency Services (DFES) to ensure smooth communication and coordination during the planning, implementation, and review of the BRM Plan.

Coordinates internal stakeholder meetings, updates on treatment plans, and ensures timely communication of key information between local government departments and DFES.

Community Emergency Services Manager, Shire of Nannup

Facilitates communication between emergency services, such as Volunteer Fire Brigades, State Emergency Services (SES), and police, ensuring timely and accurate information sharing during high-risk periods and emergency events.

Ensures that emergency services are informed of the latest updates to the BRM Plan and are prepared for their roles during bushfire incidents.

Community Engagement Officer, Shire of Nannup

Responsible for engaging with the community, including landowners, residents, and local businesses, to communicate bushfire risk management initiatives, planned treatments, and community responsibilities.

Organizes community workshops, public forums, and educational campaigns to raise awareness about bushfire risk and ensure active participation in the planning process.

Volunteer Fire Brigade Representatives

Act as liaisons between the local government and volunteer brigades, ensuring brigade members are informed about the BRM Plan, treatments, and their operational roles.

Provide feedback from the field on the effectiveness of risk treatments and communicate with the local government about any challenges faced during bushfire events.

Local Government Environmental Officer

Collaborate with stakeholders to communicate about vegetation management, prescribed burns, and firebreak maintenance as part of the bushfire risk mitigation strategy.

Responsible for ensuring landowners are aware of compliance requirements for firebreaks and land clearing in accordance with the BRM Plan.

Council Members, Shire of Nannup

Support communication efforts by advocating for community engagement in the BRM Plan and communicating with their constituents about the importance of bushfire preparedness and mitigation measures.

Each role contributes to a comprehensive communication strategy, ensuring that information flows effectively between all parties involved in the BRM Plan's development, implementation, and review.

Key Stakeholders for Communication

The following table identifies key stakeholders in BRM planning process, its 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 of outcomes	Level of engagement
Who is the stakeholder? Consider government agencies, interest groups and service providers.	What is their role or interest that makes them a stakeholder? Consider if they are an asset owner, landowner or manager, treatment manager or interested party.	Consider how the implementation of the BRM Plan impacts each stakeholder and then assign them a rating of High, Medium or Low.	What level of engagement is necessary for the stakeholder? Inform, consult, involve, collaborate or empower?
Local Government (e.g., Shire of Nannup)	Responsible for developing, implementing, and reviewing the BRM Plan. Asset owner and land manager.	High	Collaborate
Department of Fire and Emergency Services (DFES)	Provides expertise in bushfire risk assessment and treatment management. Assists in response coordination.	High	Collaborate
Volunteer Fire Brigades	Respond to bushfires and assist in mitigation treatments. Frontline response stakeholders.	High	Collaborate
State Emergency Services (SES)	Involved in emergency response coordination and support during bushfire events.	High	Collaborate
Landowners and Residents	Property owners responsible for implementing mitigation measures (e.g., firebreaks) on their land.	High	Empower
Water Corporation	Manages key water infrastructure that could be affected by bushfire damage. Asset owner.	Medium	Consult
Western Power	Manages electrical infrastructure vulnerable to bushfire damage.	High	Consult
Main Roads WA	Responsible for ensuring access roads and transport routes remain safe and accessible during bushfires.	Medium	Consult

Environmental Groups	**Interested in the impact of the BRM Plan on local flora and fauna, particularly protected areas.**	**Medium**	**Consult**
Tourism Operators	**Tourism businesses operating in bushfire-prone areas, particularly during peak fire season.**	**Medium**	**Inform**
Local Businesses	**May experience disruptions during bushfire events. Can contribute to preparedness efforts.**	**Medium**	**Inform**
Police	**Assist in evacuation efforts and maintaining public order during bushfire emergencies.**	**High**	**Collaborate**
Health Services (Hospitals, Clinics)	**Provide medical care during emergencies and may serve as emergency shelters.**	**High**	**Consult**
Educational Institutions (Schools)	**Schools that may need to evacuate students or serve as evacuation points during a bushfire.**	**Medium**	**Inform**
Community Groups (e.g., bushfire-ready groups)	**Actively involved in preparedness and resilience building within local communities.**	**High**	**Empower**
Media Outlets (Local Radio, TV, Newspapers)	**Media Outlets (Local Radio, TV, Newspapers)**	**Medium**	**Inform**
Office of Bushfire Risk Management (OBRM)	**Endorses the BRM Plan and ensures alignment with state policies.**	**High**	**Collaborate**
Non-Governmental Organizations (NGOs)	**Provide support in relief efforts and post-bushfire recovery.**	**Medium**	**Consult**

Levels of Engagement:

- **Inform:** Provide stakeholders with the necessary information to keep them updated about the BRM Plan.
- **Consult:** Obtain stakeholder feedback on aspects of the BRM Plan and ensure concerns are considered.
- **Involve:** Work directly with stakeholders throughout the process to ensure their input is understood and considered.
- **Collaborate:** Partner with stakeholders in each decision-making aspect of the BRM planning and implementation.
- **Empower:** Give stakeholders the responsibility to make decisions regarding their role in the BRM Plan, particularly in their areas of responsibility (e.g., landowners).

This communication plan ensures that all relevant stakeholders are appropriately engaged in the BRM planning process, leading to better risk management outcomes.

Communications log

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, or review of the BRM Plan. 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?
Jan 10, 2024	Local Government, DFES	Initial stakeholder consultation	Overview of BRM Plan objectives and stakeholder roles	In-person meeting	Need for clearer explanation of BRM roles	Follow-up meeting with detailed breakdown
Feb 15, 2024	Landowners, Residents	Community engagement and awareness	Discussed firebreak requirements and risk treatments	Community workshop	Some landowners unaware of firebreak obligations	Mail follow-up with compliance guide
Mar 20, 2024	Volunteer Fire Brigades	Engagement on operational preparedness	Reviewed response protocols and equipment needs	Online workshop	Volunteers requested more training for new members	Schedule additional training sessions
Apr 5, 2024	Indigenous Land Councils	Consultation on land management practices	Discussed traditional fire management techniques	In-person meeting	Valuable input on prescribed burns for fuel reduction	Integrate practices into treatment plan

Development of the Treatment Schedule

May 1, 2024	DFES, SES	Coordination of prescribed burns	Finalized treatment schedule for high-risk areas	Email, phone calls	Coordination needed between agencies	Ongoing collaboration and scheduling
May 15, 2024	Water Corporation	Protection of critical infrastructure	Identified areas for enhanced firebreaks and monitoring	In-person meeting	Water infrastructure more vulnerable than anticipated	Increased focus on critical asset protection
June 2, 2024	Environmental Groups	Impact assessment	Discussed the impact of prescribed burns on local wildlife	Presentation	Need to conduct additional wildlife impact studies	Follow-up environmental studies

Review of the BRM Plan

August 1, 2024	All key stakeholders	BRM Plan review	Feedback session on the current BRM Plan effectiveness	Online survey	Some stakeholders requested more frequent updates	Schedule quarterly review meetings
Sept 12, 2024	Local Government	Review of treatment effectiveness	Discussed the effectiveness of current mitigation treatments	Workshop	Improved interagency collaboration needed	Regular interagency review meetings
August 1, 2024	All key stakeholders	BRM Plan review	Feedback session on the current BRM Plan effectiveness	Online survey	Some stakeholders requested more frequent updates	Schedule quarterly review meetings
Sept 12, 2024	Local Government	Review of treatment effectiveness	Discussed the effectiveness of current mitigation treatments	Workshop	Improved interagency collaboration needed	Regular interagency review meetings

Communication Plan

This Communication Plan outlines the key communication initiatives that will be undertaken during the implementation 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
What is the timeframe or date for this communication?	Who is the stakeholder(s) or target audience?	Which communication objective(s) does this activity support or achieve?	How are you communicating (e.g. email, meetings) and how often? What resources are required?	What is the key message or purpose that needs to be understood?	Who is responsible for planning and undertaking the communication activity?	What could reduce the effectiveness of the communication?	What will be done to reduce the likelihood of this happening?	How will you know if your communication was successful?
July 2024	Landowners, Residents	Increase public awareness of fire risk	Mail, social media, workshops	Importance of firebreaks and land management	Local Government, Community Engagement Officer	Low engagement from landowners	Provide multiple channels for engagement	Track participation rates in workshops and online
August 2024	Volunteer Fire Brigades	Reinforce operational readiness	Online training sessions, emails	Prepare for upcoming bushfire season	Bushfire Risk Management Planning Coordinator	Inadequate attendance in training	Schedule sessions at convenient times, offer recorded sessions	Attendance records, post-training feedback
October 2024	DFES, SES	Coordination of treatment implementation	Emails, in-person meetings	Finalize resource allocation and treatment plans	DFES	Conflicting schedules between agencies	Establish a clear timeline early in the process	Meeting attendance, timely completion of treatment plans

Appendix D – Biennial review checklist

Annual review checklist to be completed and submitted to the Office of Bushfire Risk Management (OBRM) by 30 May every two years to maintain endorsement of the Bushfire Risk Management (BRM) Plan. This checklist is not required for the initial submission of the plan.

Correspondence

☐	Cover letter from local government Chief Executive Officer or delegate to Director OBRM with this form completed and attached.

Bushfire Risk Management Plan

Chapter 1	☐	BRM Plan objectives remain relevant.
Chapter 3	☐	Content of the context statement reflects current factors affecting bushfire hazard and bushfire risk to the community, economy and environment.
Chapter 4-7	☐	Figures and tables have been updated to reflect current data in Bushfire Risk Management System (BRMS).
Chapter 6	☐	Treatment Strategy remains reflective of community values and strategic priorities.
Appendix B	☐	Local government wide controls includes current treatment programs in local government area.
Appendix C	☐	Communication Plan has been updated to include planned stakeholder engagement and communication activities for the next planning period.

Bushfire Risk Management System

☐	All assets identified in the Local Government area have been mapped and risk assessed in BRMS.
☐	All assets have had a risk reassessment completed in the last 2 years.
☐	The treatment schedule includes planned treatments for at least the next 12 months.