Shire of Woodanilling

Bushfire Risk Management Plan

2024 - 2026

Office of Bushfire Risk Management Bushfire Risk Management (BRM Plan) endorsed 24 September 2024

Local Government Council BRM Plan approval 17 December 2024

Cover Photo Story – June 2024

In June 2024, the Shire of Woodanilling reached a major project milestone within the Community Water Supply Program (CWSP) funded by Department of Water and Environmental Regulation (DWER) & The Shire of Woodanilling.

This involved the installation of a 280,000L water tank for the Community to assist the Woodanilling Bush Fire Brigades during fire season.

The enormous sand pad was put in place by Katanning Bob Cat Hire, with sands provided through Klopper Contracting in Kojonup. Price's Fabrication installed the tank in less than a day. All throughout installation, the project was supported by the very professional DWER staff giving amazing guidance, advice and assistance to the Team.

The next items of interest with the water tank(s) is the plumbing in of the tank as well as trenching and piping all rain water from the Shire depot and office buildings to supplement and increase our capture of this amazingly precious commodity.

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Document control

Shire of Woodanilling Bushfire Risk Management Plan 2017 – 2022 (Replaced)

Version	Date	Author	Section
1.0	12 June 2017	P Cupitt &D Morgan	Initial version submitted to OBRM forcompliance review
2.0	16 June 2017	P Cupitt &D Morgan	• Renamed section 1.3 • Amended OEM references • Amended Section 3.1.1 • Added Tenure table • Added information on demographicsto section 3.1.3 • Amended 'mitigation zone' to'bushfire management zone' • Amended Section 3.2.1 • Added reference re Natural ResourceZone • Added information to Section 3.2.3 • Moved 'Cultural Considerations' toSection 3.1.5 • Amended intro to Section 4 • Included HVMB in LG Wide ControlsComms Strategy: • Added Comms Roles andResponsibilities of the LG • Amended OBRM role

Shire of Woodanilling Bushfire Risk Management Plan 2024 – 2026

Document name	Document owner	Document location
Shire of Woodanilling Bushfire Risk Management Plan 2024-2026	CEO Shire of Woodanilling	G Drive
Current Version	Issue date	Next review date
1.1	27/08/2024	30/05/2026

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 the Shire of Woodanilling 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 Woodanilling.

Local Government	Representative	Signature	Date
Shire of Woodanilling	President Dale Douglas		19/12/24
Shire of Woodanilling	CEO Paul Hanlon		19/12/24

Publication information

Chapter 1 Introduction

1.1. Background & The Bushfire Risk Management Plan (BRMP)

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 Woodanilling, encompasses all land within the Shire of Woodanilling and has been written on behalf of all stakeholders within that area.

This BRM Plan is an update on the original Shire of Woodanilling BRMP 2017 – 2022 and is informed by consultation and communication with stakeholders 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 Woodanilling 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

Legislation, policy and standards that were applied in the development of this BRM Plan can be found in the Bushfire Risk Management Planning Handbook – Appendix 1 – Summary of Related Legislation, Policy and Guidelines.

Important Shire of Woodanilling documents that inform this plan include:

- Shire of Woodanilling Strategic Community Plan & Corporate Business Plan (under renewal)
- Shire of Woodanilling Long Term Financial Plan (under development)
- Shire of Woodanilling Delegations Register

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.

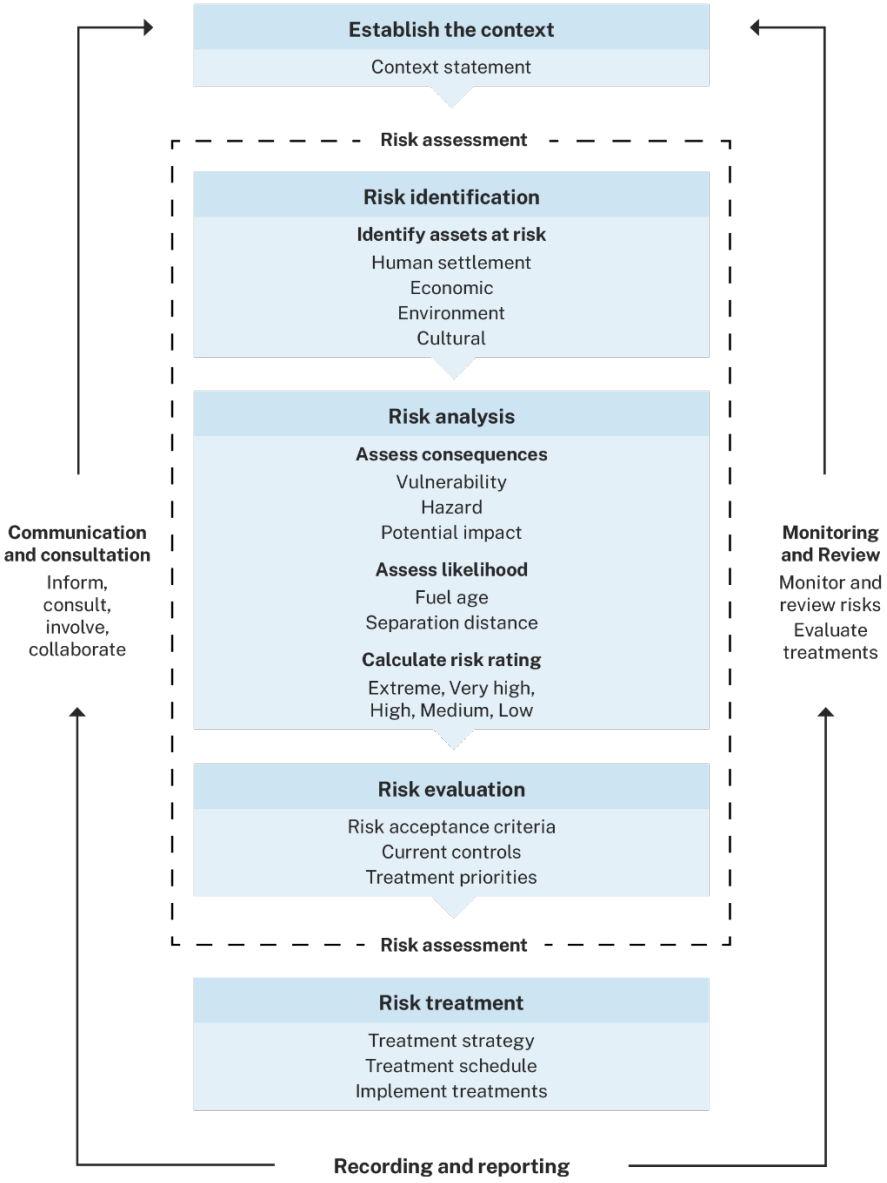


Figure 1: The Bushfire Risk Management planning process

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.

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

Stakeholder*	Roles and responsibilities
Shire of Woodanilling Community	• Engage with the Shire of Woodanilling as responsible landowners to *mitigate Bush Fire associated risks* • Volunteer with the Shire of Woodanilling Bush Fire Brigades if willing and able • Support the actions identified in this BRMP to be undertaken in the Shire of Woodanilling

Table 1 – Roles and responsibilities in the Bushfire Risk Management (BRM) planning process

2.2. Communication and consultation

Communication and consultation are fundamental to the development, implementation and review of the BRM Plan. A Communication Plan describing communication with relevant stakeholders at each stage of the BRM planning process is at Appendix B. A record of engagement with stakeholders is maintained

Chapter 3: The Bushfire Risk Management Plan (BRMP)

The Bushfire Risk Management Plan (BRMP) is a critical document that contains essential regional and local data acquired during the initial planning and subsequent review phases. This data is utilised to assess the level of risk posed by bushfires and to determine the necessary actions to reduce this risk. In the development of this plan, significant emphasis has been placed on promoting the concept of 'Shared Responsibility.'

Shared responsibility entails the recognition that multiple parties or individuals have a role to play in addressing the risk of bushfires. In this approach, each party assumes a share of the responsibility for dealing with this issue, rather than relying solely on a single entity or individual.

In the realm of bushfire risk management, shared responsibility encompasses state and local government agencies, private corporations and businesses, local community groups, residents, and ratepayers, all working collectively. Together, these collective endeavors to identify bushfire hazards, participate in risk reduction efforts, and prepare for emergencies.

Shared responsibility encompasses state and local government agencies, private corporations and businesses, local community groups, residents, and ratepayers, all working collectively to reduce hazards, participate in risk reduction efforts, and prepare for emergencies.

The principle of shared responsibility acknowledges that many challenges are too intricate or substantial to be effectively tackled by a single entity. Instead, a collective effort is required to develop sustainable and effective solutions. By collaborating and sharing responsibility, stakeholders can bring their unique perspectives, resources, and expertise to the table, thereby increasing the likelihood of success and enhancing overall outcomes.

Chapter 4: Establishing the context

In this Bushfire Risk Management (BRM) Plan, the concept of the "context of bushfire in the landscape" encompasses a comprehensive understanding of physical, ecological, and societal factors that collectively influence the likelihood and impact of bushfires. Developing an effective Bushfire Risk Management Plan (BRMP) for the Shire of Woodanilling hinges on a thorough grasp of the specific context of bushfires within the region, serving as the cornerstone of the plan.

The forthcoming sections of this report will extensively explore the Shire's distinctive characteristics and framework. This exploration encompasses an in-depth examination of community dynamics, geographical landscape, environmental features, industrial presence, climatic conditions, historical context, existing bushfire mitigation strategies, and the valuable contributions made by key stakeholders in mitigating bushfire risks.

Strategic and corporate framework

Informing strategies and location-specific plans such as this Bushfire Risk Management Plan are important elements of the Shires integrated planning framework.

The integrated planning framework of the Shire of Woodanilling is currently undergoing its first major review in over a decade. The Shire of Woodanilling Strategic Community Plan 2024-2034 is currently being prepared with consultation closing on the 31 July 2024. Adoption of the renewed Strategic Community Plan is expected by October 2024.

The Shire’s overall integrated planning framework will set our community up for the next 10 years to deliver vital infrastructure and community programs are rolled out to the community.

This BRMP will enhance the strategic and corporate framework of the Shire, with detailed and specific information that can integrate comprehensive measures into future planning and decision-making processes. By providing a foundational understanding of the risks inherent to the Shire, the BRMP achieves this goal through several key components. These include mapping vulnerable assets, cultivating relationships with diverse stakeholders, conducting thorough risk assessments, and drawing insights from historical lessons learned.

The plan will help the community to better understand Bushfire risk and will aid in building community cohesion and resilience, cultural appreciation, environmental conservation and built infrastructure resilience.

In conjunction with the strategic and corporate framework, the Shire employs Local Emergency Management Arrangements (LEMA) as a fundamental structure for orchestrating and overseeing emergency response initiatives within the region. LEMA serves as a critical mechanism for ensuring adept preparedness, timely response, and comprehensive recovery from a spectrum of emergencies, including bushfires. Within the framework of LEMA, the Shire conducts assessments to discern the risks and vulnerabilities inherent to the local community, formulates response plans, and identifies necessary resources. This document provides valuable guidance to the Bushfire Risk Management Plan (BRMP) on how to effectively bolster community support for bushfire prevention efforts.

The BRM Plan interlinks with the emergency management structures of the shire, specifically the Local Emergency Management Committee (LEMC) and the Bush Fire Advisory Committee (BFAC). Serving as a foundational document, the plan provides essential information to the LEMC, guiding collaborative planning efforts that seamlessly integrate responses to bushfires with broader emergency management initiatives. Similarly, the BFAC draws upon the plan for

policy development, community engagement strategies, and recommendations for ongoing updates.

Implementing this plan will enhance the clear direction that was developed in the original plan for bushfire risk management within the Shire's boundaries, highlighting the shared accountability and responsibility towards this dynamic matter. Regular ongoing reviews and adaptations to maintain this plan's relevance, ensures the community can enhance resilience, protect lives and property, and contribute to overall safety and well-being.

Implementation in the Shire of Woodanilling

The Bushfire Risk Management Plan (BRMP) represents a comprehensive framework aimed at providing the Shire of Woodanilling, its stakeholders, and the broader community with a thorough understanding of bushfire risk within its jurisdiction. Its primary goal is to enhance community awareness, education, and the implementation of planned treatment activities across various localities, facilitating the identification of treatment priorities and aiding in future planning and budget allocation. While traditional approaches to bushfire risk management focused predominantly on response and recovery efforts, there's now a shift towards a more holistic risk management approach encompassing preventive and preparatory measures. Regular review and updates to this plan ensure its continued relevance in light of evolving bushfire risks.

Approved by both the Department of Fire and Emergency Services (DFES) and the Shire of Woodanilling Council, the ongoing execution, implementation, review, and adjustment of this plan are overseen by the Shire of Woodanilling's Chief Executive Officer (CEO).

Collaborating closely with the Community Emergency Services Manager (CESM), the Local Emergency Management Committee (LEMC), and the Bushfire Advisory Committee (BFAC), the CEO ensures the effective administration and evolution of this Bushfire Risk Management Plan (BRMP).

Acknowledging the substantial workload associated with this endeavor, the absence of a dedicated position within the shire or region to address long-term objectives may result in a delayed implementation of the plan. However, maintaining the accuracy and currency of data remains imperative for the shire to uphold a transparent understanding of its ongoing endeavors in managing bushfire risks.

Land use and tenure

Statistics show that the majority of land (93.9%) in the Shire of Woodanilling is vested to private landowners which is predominantly agriculturally based.

The other tenures in the Shire are combination of Local Government, Department Planning, Lands and Heritage, and the Department of Biodiversity, Conservation and Attractions. The Shire has 1,328 hectares of Nature Reserve which equates to 1.2% of the Shires total area.[1]

Land Manager	Local Government Area (%)
Local Government	1.2%
Private	93.9%
Department of Biodiversity, Conservation and Attractions	1.2%
Department of Planning, Lands and Heritage	3.7%
Total	100%

Table 2 – Summary of land management responsibilities within the Shire of Woodanilling[2]

In a municipality represented by predominantly private landholders, the risk of bushfires may be heightened due to the decentralised nature of land management practices. The Shire of Woodanilling illustrates this scenario, with primary land uses predominantly involving crop farming, forestry, and sheep husbandry. The specific management practices associated with these activities, coupled with the timing of their implementation, consistently elevate the inherent risk of bushfires in the region.

Considering the substantial portions of the Shire managed by private landowners, several challenges arise, necessitating strategic considerations within the Bushfire Risk Management Plan:

Reduced Local Population for Fire Prevention:

The significant management of land by private owners contributes to a diminished local population in towns and communities, impacting the available manpower for fire prevention and firefighting efforts.

Engagement of Private Landowners as Stakeholders:

Given the high percentage of privately owned land, proactive engagement with private landowners as key stakeholders becomes crucial. Education and consultation will play pivotal roles in aligning their efforts with the BRM Plan and mitigation strategies.

[1] https://dbr.abs.gov.au/region.html?lyr=lga&rgn=59320

[2] Shire of Woodanilling Bushfire Risk Management Plan 2017-2022: Source: *Australian Bureau of Statistics www.abs.gov.au*

Risk Amplification from Non-Compliance:

Non-compliance by one landholder with Council policies poses an increased risk to neighboring landowners, particularly those on adjoining properties, emphasising the need for consistent adherence to regulations.

Economic and Social Implications of Farm Loss:

The potential loss of one farm, considering the predominantly private land management, carries significant economic and social implications for the Shire, necessitating a comprehensive risk assessment.

Balancing Mitigation Impact and Productivity:

Balancing the impacts of mitigation and risk reduction must be carefully considered in the broader context of productivity and associated costs. Striking this balance is essential for sustainable and effective bushfire management practices within the Shire.

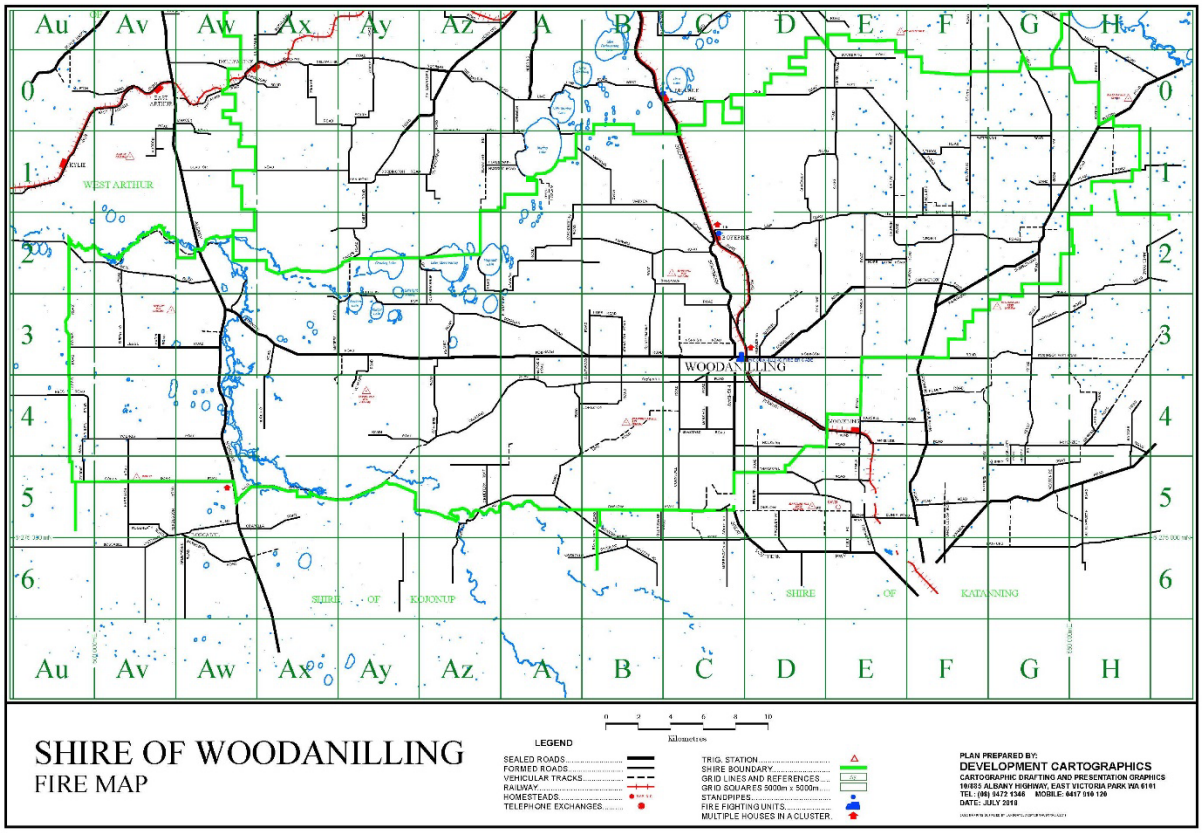


Figure 3: Shire of Woodanilling Fire Map

Infrastructure

The Shire of Woodanilling identifies several significant facilities and structures within its boundaries, each carrying its own level of exposure and vulnerability to bushfire, particularly in the rural context of the region.

The Woodanilling Cemetery, while not inherently flammable, is a significant community asset, the intentional visitation and appeasing features like vegetation and fences can create various levels of vulnerabilities with regards to the cemetery's physical components and the broader community's psychological connection.

Similarly, the Woodanilling Pavilion and Recreation Centre, situated close to a natural setting, faces heightened risks due to the presence of flammable materials. In the rural landscape of the Shire, safeguarding these assets requires strategic planning, community engagement, and collaboration with limited resources and reliance on volunteer firefighters, underscoring the unique challenges faced in protecting these significant structures from bushfire damage.

Community demographics and values – An aging Population and Succession Planning Risk

The Shire of Woodanilling population comprises agricultural communities and residents in the townsite. Demographic data reveals low diversity in ethnicities and languages.

Importantly for Woodanilling, recognising vulnerable groups within the population, such as the elderly or individuals with mobility challenges, allows for targeted and tailored risk mitigation efforts. Given the predominantly rural nature of the population, with a significant proportion residing in agricultural areas dedicated to farming, there is a unique context to consider. Understanding the lifestyle and land use patterns of residents in these agricultural areas becomes essential for developing effective and community-specific bushfire risk management strategies.

The Shire of Woodanilling has an aging population which is already well above the State and National averages. The most recent Australian Bureau of Statistics (ABS) Census data is from 2021. This reflects the population of Woodanilling as 448 persons. The median age, of 45 years is 7 years above the Western Australian and Australian average of 38 years. This is also an increase on the median age of 43 from the 2016 Census.

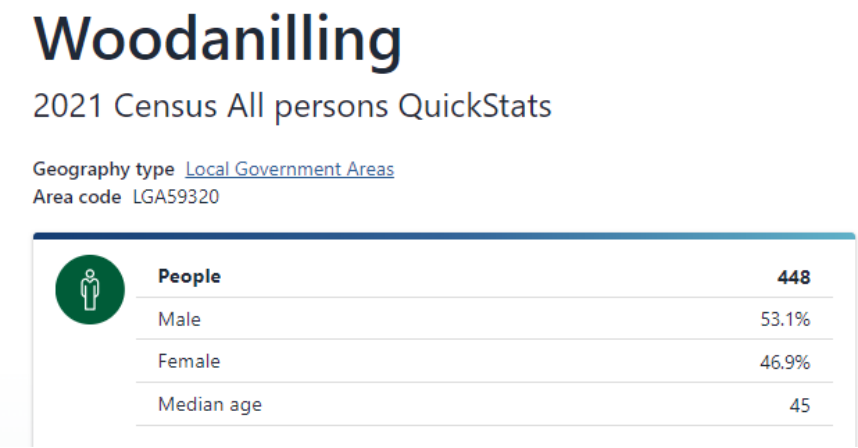


Figure 4: Shire of Woodanilling Demographics, Census 2021[3]

The aging population of Woodanilling implies that the Shire may need to address different social and health needs compared to younger populations.

The current population and demographics of the Shire of Woodanilling may not pose significant challenges for bushfire response at present. However, the trends of population decline, and an aging demographic raise concerns for the future. If these patterns persist, the Shire may need to adapt its emergency management strategies to address the evolving needs of an aging population.

Addressing the challenges associated with an aging population requires a holistic approach, involving collaboration between emergency services, healthcare providers, community organisations, and local government. Strategies may include tailored evacuation plans for older residents and community education on fire safety for vulnerable populations.

The Shire of Woodanilling's population is fairly evenly spread between the townsite and surrounding agricultural properties. The townsite has an approximate population of 207 people with the remainder of the Shire holding approximately 241 persons.4 Many of the Agricultural families in the Woodanilling Shire are long term generational farming families and there is minimal cultural diversity.

[3] https://abs.gov.au/census/find-census-data/quickstats/2021/LGA59320
[4] https://abs.gov.au/census/find-census-data/quickstats/2021/SAL51636

Cultural diversity

Ancestry, top responses *All people*	Woodanilling	%	Western Australia	%	Australia	%
English	215	48.0	1,000,796	37.6	8,385,928	33.0
Australian	183	40.8	789,282	29.7	7,596,753	29.9
Scottish	46	10.3	232,541	8.7	2,176,777	8.6
Irish	44	9.8	233,323	8.8	2,410,833	9.5
German	20	4.5	78,337	2.9	1,026,138	4.0

Note 1: *Respondents had the option of reporting up to two ancestries on their Census form, and this is captured by the Ancestry multi response (ANCP) variable used in this table. Therefore, the sum of all ancestry responses for an area will not equal the total number of people in the area.*
Note 2: *Calculated percentages represent a proportion of the number of people in the area (including those who did not state an ancestry). In 2016 QuickStats percentages were based on total number of responses and will not be comparable to this table.*

Figure 5: Shire of Woodanilling Cultural Diversity, Census 2021[5]

These characteristics carry inherent advantages in mitigating the risk of bushfires. With fewer residents living in high-risk zones, there are fewer assets to protect. In the event of an evacuation, a smaller population facilitates better local knowledge of people's whereabouts, streamlining the evacuation process with fewer individuals to communicate with, evacuate, and transport to safety.

Furthermore, the limited number of structures and homes to protect in a sparsely populated area allows firefighters to potentially focus their efforts more effectively on containing and extinguishing the fire. This contrasts with more densely populated areas where the protection of homes and structures might necessitate a higher prioritisation, highlighting an additional benefit of the area's sparse population in managing bushfire incidents.

The Shire of Woodanilling's population between 15 – 54 trails the State and National averages in each age block. This can be explained by people moving away from the area due to educational and employment opportunities and changes in agricultural practices. This highlights a significant risk for the Shire of Woodanilling's succession planning within the local Emergency Services Brigades.

Age *All people*	Woodanilling	%	Western Australia	%	Australia	%
Median age	45	N/A	38	N/A	38	N/A
0-4 years	35	7.6	161,753	6.1	1,463,817	5.8
5-9 years	32	7.0	172,654	6.5	1,586,138	6.2
10-14 years	31	6.8	171,377	6.4	1,588,051	6.2
15-19 years	15	3.3	153,263	5.8	1,457,812	5.7
20-24 years	17	3.7	158,817	6.0	1,579,539	6.2
25-29 years	19	4.1	176,045	6.6	1,771,676	7.0
30-34 years	26	5.7	196,312	7.4	1,853,085	7.3
35-39 years	22	4.8	200,904	7.6	1,838,822	7.2
40-44 years	29	6.3	178,589	6.7	1,648,843	6.5
45-49 years	27	5.9	174,632	6.6	1,635,963	6.4
50-54 years	27	5.9	173,622	6.5	1,610,944	6.3

Figure 6: Shire of Woodanilling Age, Census 2021[6]

[5] https://abs.gov.au/census/find-census-data/quickstats/2021/SAL51636
[6] https://abs.gov.au/census/find-census-data/quickstats/2021/LGA59320

Farming and International Working Visa holders/Backpackers

Over time, the Shire has witnessed a trend of farm consolidation or amalgamation, driven primarily by the pursuit of economies of scale. This process involves farmers acquiring or merging with neighbouring properties, leading to larger farms. The key motivation behind this consolidation is the ability to spread fixed costs, such as machinery and infrastructure, over a larger land area.

However, this shift has brought about notable changes, including a decrease in local labour availability, necessitating the outsourcing of labour for seasonal work. The introduction of backpackers and international working visa holders to work on farms and businesses, while addressing labour needs, also introduces potential risks associated with bushfires.

Several factors contribute to an increased risk in this context:

- Lack of Farming Experience: Many backpackers lack experience in farming practices and maybe unfamiliar with the associated fire risks. Activities involving machinery that produces sparks or the use of tools creating heat can inadvertently start fires.
- Limited Fire Safety Knowledge: Backpackers may lack awareness of fire safety practices, suchas refraining from smoking near flammable materials, ensuring proper campfire extinguishment, and promptly reporting signs of fire.
- Environmental Unawareness: Backpackers may be unfamiliar with environmental factors contributing to bushfire risk, such as dry weather conditions, high winds, and heatwaves. Theymay underestimate how a small fire can escalate into a large, uncontrollable bushfire.
- Language and Communication Barriers: Communication challenges due to language barriers may hinder effective understanding of instructions and coordination among workers or supervisors, elevating the risk of miscommunication and accidents.
- Insufficient Training and Supervision: Some employers may fail to provide adequate trainingor supervision to backpackers, increasing the likelihood of accidents and incidents.
- Short-Term Nature of Employment: Backpackers, being temporary in both location and employment, may not receive substantial investment from employers in terms of protective clothing, equipment, or training for bushfire protection. Consequently, the responsibility often falls on the Shire to provide continuous management of bushfire brigade membership,supply uniforms, and offer training.

Community awareness

The community within the Shire of Woodanilling demonstrates a nuanced understanding of bushfire risk, shaped by the resilience inherent in small rural towns and the strong reliance on farm response firefighters. There exists a deep awareness of the potential threats posed by bushfires, considering the rural landscape and agricultural activities as contributing factors to fire susceptibility. Residents acknowledge the pivotal role of farm response firefighters, who often serve as the first line of defense against bushfires due to their intimate knowledge of local terrain and vegetation. This reliance on community members for firefighting underscores the collective commitment to protecting lives, property, and livelihoods.

Despite the recognition of bushfire risk, the community exhibits a resilient attitude characterised by preparedness measures and collaborative response efforts. Residents are actively engaged in fire prevention initiatives, including fuel reduction activities, firebreak maintenance, and participation in rural fire awareness education. Moreover, the strong sense of community cohesion fosters effective communication channels and mutual support networks, enhancing the collective response to bushfire emergencies.

However, it's essential to acknowledge the challenges inherent in managing bushfire risk in small rural towns. Limited resources and infrastructure, coupled with vast geographic areas to cover, can pose significant obstacles to effective fire management. The seasonal nature of agricultural work also impacts firefighting capacity, as farm response firefighters may be occupied during critical periods such as seeding or harvest seasons.

Despite these challenges, the community's resilience and collaborative spirit serve as valuable assets in mitigating bushfire risk. By fostering ongoing communication, enhancing firefighting capabilities, and implementing proactive risk management strategies, the Shire of Woodanilling continues to strengthen its preparedness and response to bushfire threats, ensuring thesafety and well-being of its residents.

In the context of the four stages of emergency management – Prevention, Preparation, Response and Recovery, the Shire of Woodanilling has a strong and proactive approach to bushfire response. As bushfire events can directly impact a farmer's livelihood, colloquially 'if the smoke goes up' the response will be strong and fast with farmer response units arriving from neighboring farms and further afield. The downside to this is that anecdotal evidence suggests that records reflecting the number of fires in the region are not accurate as not all fires are reported.

With statistics reflecting that approximately 25% of the Shires population are registered Bush Fire Brigade Volunteers, this bodes well for the Shire as this would infer that 25% of the community would have at least some level of awareness, and therefore increased appreciation of bushfire risk and what to do when there is a fire. When it comes to preparatory efforts (i.e. in line with prevention and preparedness), community engagement is a little more challenging; mainly due to time and financial constraints on the Shire of Woodanilling, conflicting priorities and the tyranny of distance. Nevertheless, compliance in line with landowner responsibilities, detailed in the Shire's annual Bush Fire Notice, is generally adhered to without further compliance action being taken.

Economic activities and industry

The Shire of Woodanilling is predominantly a sheep and grain producing area and these industries continue to be the Shire's economic mainstay. Agricultural activities are dominated by grain, wool and sheep with beef and pigs also increasing in prominence. In recent years, a sheep and goat meat abattoir, agroforestry, a dolomite (lime) fertilizer business and other agricultural based export markets have been added to the mix.[7]

Farms are generally getting bigger or becoming increasingly diverse in order to remain profitable with most farms expanding to undertake both crop and livestock ventures as well as exploring less traditional activities such as pig and goat farming. Agriculture has been the primary industry within the Shire since the mid 1800's, needless to say; agriculture continues to be vitally important to the local economy.

[7] Website: Shire of Woodanilling Website www.woodanilling.wa.gov.au

The unemployment rate of 2.8% is lower than both the State and National averages of 5.1%. The Agricultural sector is the dominant employer in the region, with the top occupations being Managers, Labourers and Machinery Operators.[8]

Occupation, top responses *Employed people aged 15 years and over*	**Woodanilling**	**%**	**Western Australia**	**%**	**Australia**	**%**
Managers	89	42.4	160,687	12.3	1,645,769	13.7
Labourers	25	11.9	122,961	9.4	1,086,120	9.0
Machinery Operators and Drivers	19	9.0	100,392	7.7	755,863	6.3
Clerical and Administrative Workers	18	8.6	157,610	12.1	1,525,311	12.7
Professionals	16	7.6	287,009	22.0	2,886,921	24.0
Technicians and Trades Workers	16	7.6	199,379	15.3	1,554,313	12.9
Community and Personal Service Workers	14	6.7	154,341	11.8	1,382,205	11.5
Sales Workers	11	5.2	101,670	7.8	986,433	8.2

More information on Occupation (OCCP)
Table based on place of usual residence

Industry of employment, top responses *Employed people aged 15 years and over*	**Woodanilling**	**%**	**Western Australia**	**%**	**Australia**	**%**
Grain-Sheep or Grain-Beef Cattle Farming	46	21.9	4,362	0.3	18,276	0.2
Sheep Farming (Specialised)	20	9.5	2,211	0.2	18,278	0.2
Other Grain Growing	16	7.6	4,008	0.3	18,945	0.2
Primary Education	10	4.8	33,954	2.6	265,249	2.2
Other Agriculture and Fishing Support Services	9	4.3	1,386	0.1	15,340	0.1

More information on Industry of employment (INDP)
Table based on place of usual residence

Figure 8: Shire of Woodanilling Occupations and Industry of Employment[9]

Gross value of agricultural production - year ended 30 June

Description	2016	2021
Agricultural production - total gross value ($m)	----	53.3
Crops - total gross value ($m)	----	39
Livestock slaughtered and other disposals - total gross value ($m)	----	7.7

Figure 9: Shire of Woodanilling Gross Value of Agricultural Production[10]

This plan underscores the agricultural sector's substantial role in contributing to bushfire risk within the Shire, citing factors such as landscape modification, native vegetation removal, introduction of annual crops, weed proliferation, contribution to salinity, and farming practices. These factors not only heighten vulnerability in the agricultural industry but also extend risks to other economic activities.

Given the Shire's heavy reliance on agriculture, effective bushfire risk management is paramount. Severe bushfires could have profound physical and financial repercussions, devastating crops, livestock, infrastructure, transport corridors, feed sources, and elevating the risk of topsoil erosion.

[8] https://abs.gov.au/census/find-census-data/quickstats/2021/LGA59320
[9] https://abs.gov.au/census/find-census-data/quickstats/2021/LGA59320
[10] https://abs.gov.au/census/find-census-data/quickstats/2021/LGA59320

The Local Emergency Management Arrangements note that the predominant agricultural activities occur between May – July, which is the seeding season, with harvest occurring between November to January.

In a bushfire context, whilst the shire may be seen as lower risk of bushfire due to somewhat lower fuel loads in comparison to traditional high-risk areas such as forests, the peak of the harvest season coincides with the high-risk summer periods. There is a heightened risk of fires starting during the harvest period with cropping practices potentially resulting in ignition. Stubble burning, post cropping, increases the possibility of accidental escapes and increased ignitions as a result of machinery (i.e. Headers). Modern harvesters have many potential ignition sources which need to be carefully managed. Bearings, hot exhausts, turbochargers, electrical circuits and belts combined with dry straw, dust, chaff, oil and leaking distillate provide the perfect environment for fire.

The Shire has controls in place pursuant to the Bush Fires Regulations 1954, to reduce the risk of crop related bushfires; these controls are reviewed annually by the Bushfire Advisory Committee (BFAC). This risk is further reduced once harvest is completed and the paddocks opened to grazing. However, the risk is increased as result of the drive to explore alternative crops as some crops (i.e. canola or rapeseed) burn at a higher temperature and can be harder to extinguish and mop up. The risk is also increased as farmers move to employ innovative farming practices and technology.

The Shire has six bridges located around the region, the majority of which are timber construction and are therefore considered a strategic risk. Some of these bridges are located along significant routes and have the potential to impact movement around the area should they be impacted by fire, with economic impacts also likely.

Without mitigation methods, fires in such conditions can quickly escalate into highly uncontrollable situations. The Great Southern Region's well-developed network of sealed roads, including the crucial Great Southern Highway, plays a vital role in facilitating diverse modes of transportation. This comprehensive network links various towns and serves purposes ranging from emergency services access to commercial transportation and tourism-related activities.

The direct impact or destruction of this primary resource would bear significant consequences for the community. Isolation, hindered emergency response, disrupted businesses, impacted propertyvalues, compromised healthcare, education, and economic disruptions are potential outcomes. Such events may lead to supply chain disruptions, reduced tourism, increased costs, and necessitate costly and time-consuming infrastructure rebuilding, with potential environmental damage to address.

Cultural heritage

The Shire has 224 assets deemed to have cultural significance that are listed on the Heritage Council of WA 'InHerit' Register. One of these, the 'Carrolup Bridge' is listed on the State Heritage Register as a 'place of State significance' and is therefore protected under the *Heritage of Western Australia Act 1990*.[11]

Kenmare Hall is one of the many heritage buildings to be found within the Shire, it not only holds heritage value, but the Woodanilling community worked tirelessly to invest in redeveloping this historic building back to its glory. Further places of importance to the community for their heritage and cultural value include:

- Woodanilling CWA Building
- Woodanilling Town Hall
- Woodanilling Tavern
- Woodanilling Railway Station,
- Marracoonda Baptist Church
- Richardson and Co Store (Woodanilling Mens Shed)
- Woodanilling War Memorial

Additionally, the sentimental and irreplaceable nature of these structures underscores the need for robust protection measures.

In adherence to the Aboriginal Cultural Heritage Act 1972, the Shire continues to improve its engagement with Aboriginal Groups including Gnaala Karla Booja and Wagyl Kaip & Southern Noongar Aboriginal Corporations.

The Shire of Woodanilling is engaging with the Department of Planning, Lands and Heritage's, Native Title Agreements and Partnerships team on the Southwest Native Title Settlement, with the Shire of Woodanilling being located within both the Gnaala Karla Booja and Wagyl Kaip & Southern Noongar Indigenous Land Use Agreement areas.

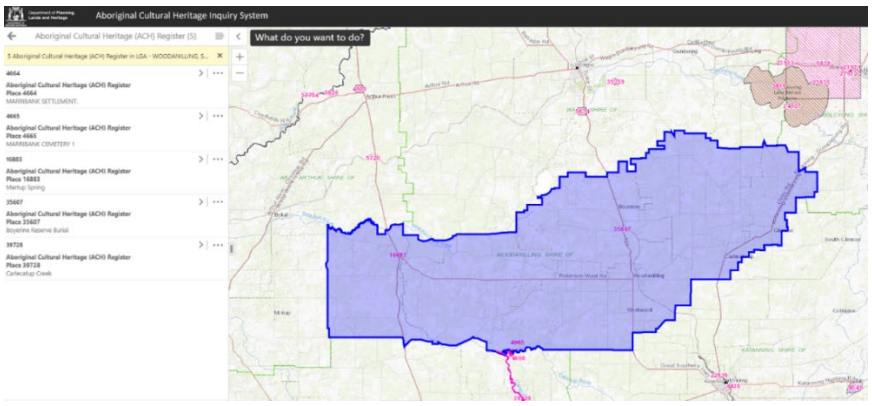


Figure 10: Shire of Woodanilling Map DPLH Aboriginal Cultural Heritage Inquiry System[12]

[11] *Website: http://inherit.stateheritage.wa.gov.au/Public/Search*
[12] https://espatial.dplh.wa.gov.au/ACHIS/index.html?viewer=ACHIS

Furthermore, the Shire of Woodanilling is aware of its obligations to identify and evaluate areas with potential Aboriginal cultural heritage significance. There are currently five registered Aboriginal Cultural Heritage sites in the Shire of Woodanilling including:

- Marribank Settlement
- Marribank Cemetary
- Martup Spring
- Boyerine Reserve Burial
- Carlecatup Creek

This proactive approach serves as a foundation for integrating cultural considerations into bushfire mitigation efforts, enabling the implementation of precautionary measures such as adjusting activity timing, methods, or locations to preserve culturally significant sites.

Moreover, the Shire plays a vital role in raising awareness within the broader community about the existence of Aboriginal cultural heritage sites and the imperative to safeguard them during bushfire mitigation initiatives. This comprehensive approach aligns with the Shire's dedication to upholding legal obligations while actively preserving and respecting Aboriginal cultural heritage.

Topography and landscape features

Topography impacts this BRM Plan as it contributes to risk by influencing fire rate of spread (ROS), intensity and due to the potential for the terrain to impede access for suppression forces. The risk associated with topography is considered in the context of access, as a variable in predicting fire behavior and in the calculation of the bushfire management zone for each community/asset.

The Shire is located within the Yilgarn Craton. The Shire is a combination of ancient gneiss (coarse grained rock), porphyritic granitoid (glassy rock) and even grained granitoid (crystalline rock) with a cover of alluvium in the major valleys. Generally, the basement rocks are mantled by a lateritised, deeply weathered profile. To the east of the Shire, the sandplain soils of the ancient plateau are extensively preserved. To the west, greater stripping of the landscape has produced shallow duplex soils formed on the lateritic profile and results in the surface drainage system being better defined than that to the east.

On the ground, the landscape reflects as ‘gently undulating’ with vast expanses of seemingly level terrain. This tends to indicate that response would not necessarily be impeded by the nature of the topography.

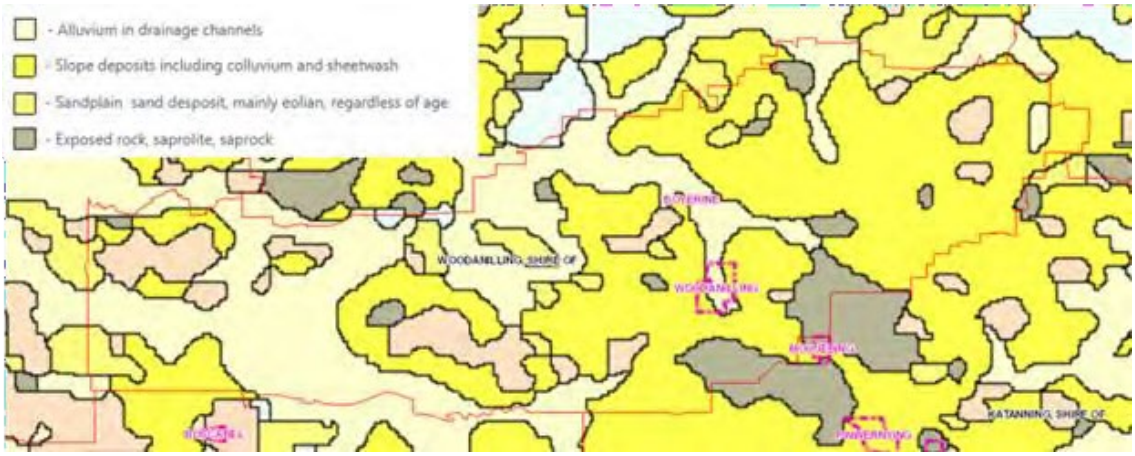


Figure 11: Shire of Woodanilling Geology[13]

The townsite is situated in a shallow broad valley with the Boyerine Creek running through town. The topography is generally undulating with gradients of less than 10%. A small ridge and exposed granite outcrops are located on the northern edge of the townsite where the Whispering Winds Estate is located.[14] A key consideration associated with these granite outcrops is the potential for this terrain to draw lightning strikes with weather factors (such as lightening) having been identified as the most significant contributor to fire occurrences in the Shire.

All of the Shire is located in the Blackwood River Catchment and is drained by the upper reaches of the Carolup and Carlecatup Rivers. Chains of wetlands and lakes occur naturally across the landscape.

Climate and weather

The Shire of Woodanilling is described as having a Mediterranean type climate, experiencing cool winters and long, hot summers. Winter months are characterised by cold fronts that generate in the Southern Ocean. Winds tend to come from the west and north-west. Rainfall in the Wheatbelt generally decreases from west to east.[15]

The combination of elevated temperatures and low humidity levels during summer creates a landscape prone to the rapid ignition and spread of fires. Prevailing wind patterns play a pivotal role, influencing the direction and speed of fire expansion. Strong winds can carry embers over considerable distances, sparking spot fires ahead of the main front and making the fires more challenging to predict. Periods of heatwaves contribute to decreased soil moisture, rendering vegetation more susceptible to ignition and elevating the overall fire danger. The prevalence of thunderstorms in the region introduces the looming threat of lightning strikes, acting as potential ignition sources that can trigger fires in remote areas.

[13] *Website: GeoVIEW.WA www.geoview.dmp.wa.gov.au*
[14] Woodanilling Townsite Fire Management Plan, February 2013, TME Town Planning Management Engineering Pty Ltd
[15] Woodanilling Townsite Fire Management Plan, February 2013, TME Town Planning Management Engineering Pty Ltd

These fires, originating in less accessible locations, present formidable challenges for firefighting endeavours. The heightened risk is intensified during periods of extreme temperatures, represented by prolonged summer conditions, which accelerate the desiccation of vegetation, creating an environment conducive to rapid fire spread. Compounding these challenges are the seasonal strong prevailing winds that persist throughout the entire bushfire season. Primarily occurring in the late afternoon, these winds predominantly blow from the south/southwest direction, further amplifying the vulnerability to bushfires and necessitating strategic planning for effective firefighting and risk mitigation

The bushfire season in the Shire of Woodanilling typically spans from November to April, coinciding with the region's hot and arid summer climate. These months pose a heightened risk of bushfires due to the prevailing weather conditions characterised by high temperatures and low humidity levels. The peak of fire danger usually occurs from late spring through early autumn, as the vegetation on the ground becomes increasingly dry following the winter rains. This period sees the convergence of heat troughs, particularly in proximity to the Pilbara region, along with the influx of hot air masses from the interior, creating an environment conducive to hazardous fire weather conditions.

As a guide, the following tables and graphs reflect the climatic conditions for the Woodanilling Weather Station that has been active since April 2016.[16]

Year	Min temp °C	Max temp °C	Min RH %	Max RH %	Rain mm	Rain days	Wind AvgSpeed @3m	Cold days	Heat days
2024	0.5	44	5.5	99.4	261.6	68	10	5	50
2023	-1.9	39.6	6.8	99.6	332.2	114	10	25	83
2022	-1.4	42.6	7.6	100	446.4	145	10	40	64
2021	0	41.7	6.9	100	387.8	148	10	17	65
2020	-1.8	42.7	8	99.5	329.6	92	10	30	74
2019	-1.3	42.7	5.5	98.7	348.2	77	9	38	89
2018	-3.1	39.8	9.6	98.9	358.6	112	10	40	22
2017	-2.4	41.2	8	99.5	492.2	132	9	26	68
2016	-2.5	41.1	6.6	99.6	359.4	128	8	43	23

Table 3: Woodanilling Annual Climatic Conditions[17]

[16] https://weather.agric.wa.gov.au/station/WD001
[17] https://weather.agric.wa.gov.au/station/WD001

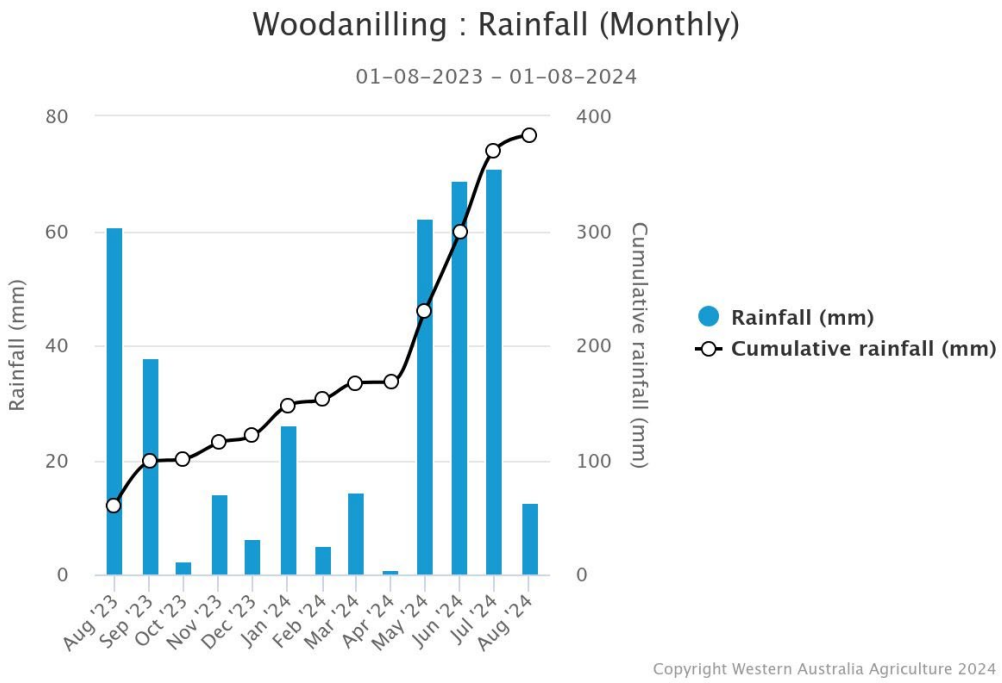


Figure 12: Woodanilling Monthly Rainfall[18]

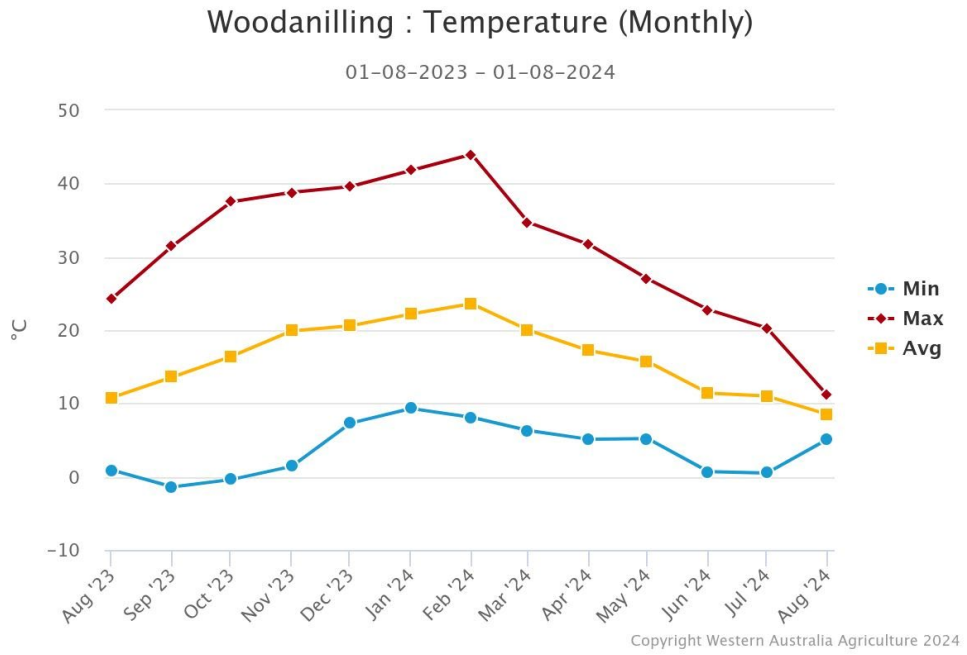


Figure 13: Woodanilling Monthly Temperature[19]

[18] https://weather.agric.wa.gov.au/station/WD001
[19] https://weather.agric.wa.gov.au/station/WD001

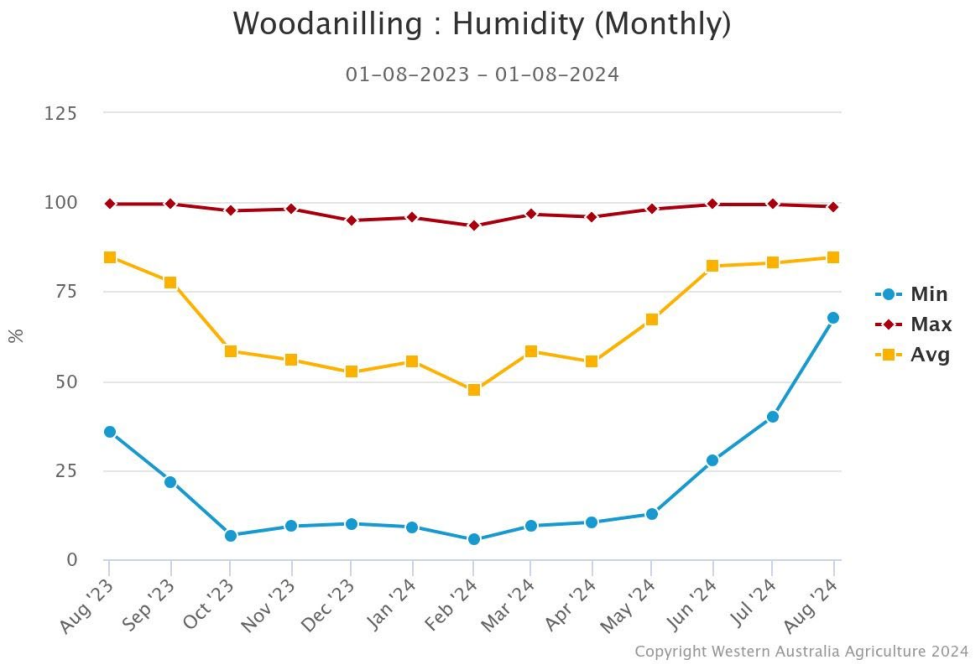


Figure 14: Woodanilling Monthly Humidity[20]

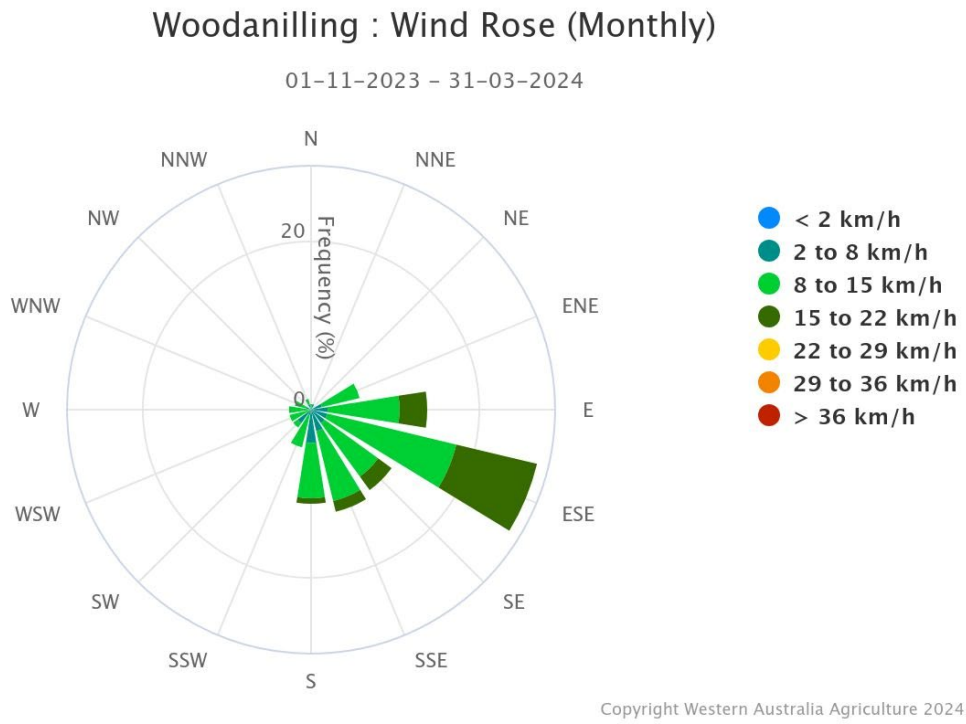


Figure 15: Shire of Woodanilling Monthly Wind Rose 1 November 2023 – 31 March 2024[21]

[20] https://weather.agric.wa.gov.au/station/WD001
[21] https://weather.agric.wa.gov.au/station/WD001

Vegetation and fuel

The total area of native vegetation in the Shire of Woodanilling has been significantly reduced through rapid broad scale clearing for agricultural purposes. However, much of the native vegetation that remains in public reserves and on private land is similar in composition to that which existed previously, although the extent of the cover has been significantly reduced. 38 Only around 16% of remnant vegetation remains, of which only 3% is within conservation estates or State Forest.[22]

The vegetation in large areas of the town and especially along the creek lines is characterised by Jam Wattles (Acacia acuminata) and Sheoaks (Casuarina obesa). The Sheoaks usually occur with closely packed narrow trunks with a dense understory which often has weed infestation. On the higher land there are areas of White gum (Eucalyptus wandoo) and Salmon gums (Eucalyptus salmonophloia).[23]

The South-west of Western Australia has been divided into districts, called Natural Resource Zones (NRZ), 42 on the basis of their natural resources i.e. vegetation type, drainage/catchment system and rainfall. The Shire of Woodanilling contains a mosaic of vegetation types, from three zones..

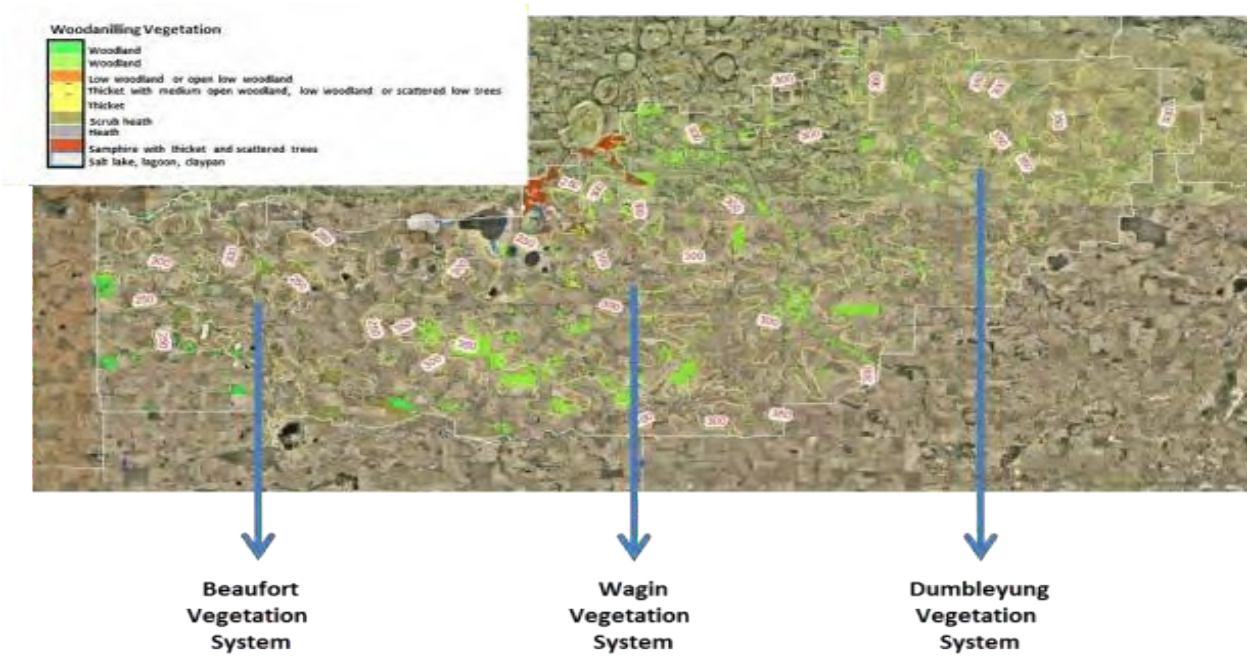


Figure 16: Woodanilling Vegetation Types and Systems[24]

The **Beaufort Vegetation System** covers a small area in the western edge of the Shire. Sandy deposits occur along sections of the Carrolup River and carry a variety of plant communities. The principle elements of this vegetation system landscape are woodland of wandoo and York gum and wandoo on undulating country and woodland of York gum and flat-topped yate (Eucalyptus

[22] Source: Landscapes of the Upper Blackwood, South West NRM Strategy, www.swnrmstratety.org.au
[23] Woodanilling Townsite Fire Management Plan, February 2013, TME Town Planning Management Engineering Pty Ltd
[24] Map Source: Conservation Science Western Australia Journal, Department of Parks and Wildlife, Volume Nine, Number One, October 2013, the vegetation of Western Australia at the 1:3,000,000 scale. Explanatory memoir. Second edition. JS Beard, GR Beeston, JM Harvey, AJM Hopkins and DP Shephard.)

occidentialis) on sandy patches. Often there is a mosaic of different combinations of Eucalyptus spp. (including Marri) woodland on a variety of landscapes.[25]

The **Wagin Vegetation System** covers the entire Shire in a belt from Beaufort River Flats to Woodanilling. The landscape is undulating and well dissected with only small remnants of laterite cappings on ridges, some granite domes and broad valleys containing salt marshes. The dominant vegetation is comprised of a mosaic of brown mallet (Eucaluptus astringens) and wandoo (Eucalyptus wandoo) woodland on laterite mesas and low woodland of York gum (Eucalyptus loxophleba) and wandoo on the slopes of undulating country. Brown mallet was joined by red morrel (Eucalyptus longicornis) near the townsite of Woodanilling. Heaths occur on scattered patches of laterite, occasionally associated with wandoo, but more frequently with the Drummond's gum (Eucalyuptus drummondii). Dryandra spp. are generally the dominant species in heath vegetation.[26]

The **Dumbleyung Vegetation System** is the most prominent System in the Blackwood Catchment and covers the eastern third of the Shire of Woodanilling. In the Shire, the landscape is gently undulating. Woodlands of York gum (Eucalyptus loxophleba) and wandoo (Eucalyptus wandoo) occupy the undulating country with Drynadra spp. scrub on the laterite residual. Brown (Eucalyptus astringens) mallet woodland and low woodland occur on weathered laterite residuals and slopes. Woodlands formed are ether mallet or York gum, salmon gum, morrell and wandoo.[27]

In the context of bushfire risk, of particular note in relation to the Woodanilling townsite, are the abundant sheoaks. The volume of sheoaks, and the density of scrub, increases the potential for a fire to impact the Woodanilling townsite with the sheoaks potentially acting as a 'wick' to draw the fire into the town settlement.

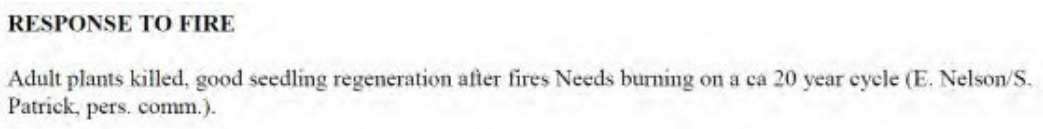
Important species and communities

Flora and Fauna represent particular significance for the Shire as they are not only recognised environmental assets in their own right, but also impact the treatment options available for identified risks in relation to other assets.

A recent study titled 'A Resilient Blackwood Basin in a Changing Climate Concept Plan, February 2013' states the following in relation to threats to the Blackwood Basin: "Bushfire and its positive effects on native vegetation are well known. Of concern however, is the lack of knowledge and an appropriate Fire Management Plan specific to the catchments within the region that are aimed at preserving life, conserving native vegetation and reducing the influx of invasive species. Conflicting information exists which requires a major investment in time and resources to ensure a best management approach is taken. Little is understood of post-fire management which has seen a rapid invasion by weedy grasses into once pristine bushland, further increasing the risk of fire in the future."[28]

[25] Native Vegetation Handbook for the Shire of Woodanilling, S Grein, 1994
[26] Native Vegetation Handbook for the Shire of Woodanilling, S Grein, 1994
[27] Native Vegetation Handbook for the Shire of Woodanilling, S Grein, 1994
[28] A Resilient Blackwood Basin in a Changing Climate Concept Plan, February 2013

All treatments need to be assessed in line with the requirements of the identified flora and fauna. As an example, one of the Declared Rare Flora located within the Shire - ADENANTHOS PUNGENS SUBSP EFFUSA Nelson – indicates fire management as follows:



RESPONSE TO FIRE

Adult plants killed, good seedling regeneration after fires Needs burning on a ca 20 year cycle (E. Nelson/S. Patrick, pers. comm.).

Figure 17: Fire Management of Declared Rare Flora – Adenanthos Pudgens Subsp Effusa Nelson[29]

Appropriate authorities and subject matter experts must be consulted prior to any risk treatment works commencing.

A further consideration in relation to both bushfire mitigation and response strategies is the potential spread of Phytopthora Cinnamomi (Dieback). Dieback has infected large areas of Jarrah forest. It is easily spread through soil movement from vehicles, animals, water and feet. Other fungal-borne diseases can also be spread through these pathways. This risk must be considered in the context of planned prevention and response strategies and the risk minimised wherever possible. The Shire has also identified a number of noxious weeds including, Wild Oats, Barley Grass, Stinkwort, Cape Tulip, Soursob, Four O'Clock, Wireweed and Bridal Creeper. Any treatments need to minimise the potential spread of disease or unwanted plants.[30]

Road Reserves

Fire management in road and rail reserves present a challenge in balancing the risk from fire to adjoining life and property with the biodiversity values of the native vegetation. As road reserves are considered a potential ignition source they are a focus of mitigation treatments and care needs to be taken during treatment planning.

The majority of road and rail reserves, however, are only narrow strips of vegetation which makes them particularly vulnerable to degradation. Thus, actions in these reserves are important, as this will determine the longevity and function of the vegetation. These actions include how we use and manage fire.

In Australia, some ecosystems have evolved to survive fire and some plants may even require fires to regenerate. However, fire can have both strong negative and positive impacts on natural populations of both flora and fauna, and thus careful management is required.

[29] Declared Rare Flora in the Katanning District, Department of Conservation and Land Management, 2000
[30] *Website: Shire of Woodanilling* *www.woodanilling.wa.gov.au*

Flora

Threatened flora found within the Shire of Woodanilling includes:

Conostylis Setigera subsp. Dasys Hopper

Caladenia Luteola Hopper & A.P.Br.

Jacksonia Velveta Chappill

Verticordia fimbrilepis Turcz Subsp. Fimbrilepis

Adenanthos pungens subsp.

Effusus E.C.Nelson

Woodanilling is also home to a further six (6) species designated Priority 1 Flora, all of which are native to Western Australia:

- Schoenus sp. Beaufort
- Leucopogon ozothamnoides
- Hemigenia rigida Benth.
- Thomasia sp. Arthur River
- Calandrinia sp. Piawaning
- Banksia lepidorhiza

A Flora Road is one which has special conservation value because of the vegetation contained within the road reserve and would therefore reflect environmental significance for any Shire. Flora Roads also provide important habitat for fauna. There are currently three (3) registered Flora Roads in the Shire of Woodanilling, these are:

1. Link Road.
2. River Road
3. Robinson Road West[31]

Where possible, areas of environmental significance relating to priority flora have been reflected on the BRMS. Due to the sensitive nature of information around rare flora, some discretion has been applied to the amount of information recorded so further advice will need to be sought from subject matter experts (DPAW, Landcare, Friends of the Reserve etc.) to confirm the location of environmental assets and the potential impact of both mitigation and response strategies.

[31] Website: https://www.dpaw.wa.gov.au/management/off-reserve-conservation/93-roadside-conservation

Fauna

The Wildlife Conservation Act 1950 provides for native fauna (and flora) to be protected where they are under an identifiable threat of extinction and, as such, are considered to be "threatened". Based upon data from DPAW, fourteen (14) species of threatened and priority fauna have been recorded or sighted throughout the Shire of Woodanilling, these are listed below.[32]

Birds

- Carnaby's Cockatoo - Calyptorhynchus latirostris
- Hooded Plover - Charadrius rubricollis
- Peregrine Falcon - Falco peregrinus
- Australian Peregrine Falcon - Falco peregrinus subsp. Macropus
- Western Rosella - Platycercus icterotis subsp. Xanthogenys

Mammals

- Woylie, Brush-tailed Bettong - Bettongia penicillata subsp. Ogilbyi
- Western Quoll - Dasyurus geoffroii (Chuditch)
- Southern Brown Bandicoot - Isoodon obesulus subsp. Fusciventer
- Tammar - Macropus eugenii subsp. Derbianus
- Western Brush Wallaby - Macropus Irma
- Numbat - Myrmecobius fasciatus
- Red-tailed Phascogale - Phascogale calura
- Southern Brush-tailed Phascogale Phascogale tapoatafa subsp. Tapoatafa

Reptiles

- Carpet Python - Morelia spilota subsp. Imbricate

[32] Website: https://naturemap.dpaw.wa.gov.au/

Red Tailed Phascogale

The Red-Tailed Phascogale is an endangered marsupial that is now largely confined to the Southern Wheatbelt of Western Australia with a healthier population found in the Woodanilling Shire. It is possum-like in its habits, feeding and sheltering in trees. It favours mature wandoo and rock oak habitat, but may be found in other types of woodland such as the abundant sheoak found in the area. Most of its remaining habitat has been severely fragmented by agriculture.

Mating occurs between May to July, with babies born around August meaning that babies are yet to be weaned during the periods most suited to the majority of treatments. The breeding cycle of the Phascogale may restrict the period in which prescribed burns can be undertaken due to the need to ensure nests are not disturbed during the breeding season. Recent studies have also shown that frequent burning can remove mature-age vegetation which the species occupies. 58 When determining treatment options in areas likely to be inhabited by the Phascogale, consideration must be given to ensure minimal disruption.

Historical bushfire occurrence

DFES records show that from 2020/21 - 2023/24, a total of 32 landscape (bush) fire incidents were reported in the Shire of Woodanilling, approximately 8 per year. Interrogating the ignition causes highlights the importance of educating the community and implementing controls such as Vehicle Movement Bans on activities where appropriate. Importantly, only 22% of fires were due to Weather Conditions – Lighting. This means that 78% were the result of human activity including Burn Off Fires (25%), Vehicles (incl. Farming Equipment/Activities) (25%), and Power Lines (16%) making up the majority of these ignition causes. This is an alarming increase on the previous Shire of Woodanilling Bush Fire Risk Management Plan, as only 14% of reported fires were attributed to vehicles or electrical faults in the previous period.

Incidents within the Shire of Woodanilling by Financial Year *current FY incomplete

Incident Type	2020/2021	2021/2022	2022/2023	2023/2024
False Call - Good Intent	0	0	0	3
Fire - Bushfire (lge)	2	2	2	6
Fire - Bushfire (sml)	4	7	6	3
Fire - Other/Rubbish/Vehicle	2	1	2	2
Fire - Structure	0	0	1	1
Natural Hazard	1	1	0	0
Rescue & Medical	1	0	0	0
Road Crash & Rescue	1	3	3	2

Figure 18: Reported Incidents in the Shire of Woodanilling 2020/21 – 2023/24[33]

Bushfires within the Shire of Woodanilling, with Ignition Cause

Bushfires are all vegetation fires (bush, grass, forest, crop etc..), of any size.

Ignition Cause	2020/2021	2021/2022	2022/2023	2023/2024
Burn off fires	3	3	2	0
Campfires/bonfires/outdoor cooking	0	0	2	0
Equipment - Mechanical or electrical fault	0	0	0	1
Power lines	0	4	1	0
Suspicious/Deliberate	0	0	1	0
Vehicles (incl. Farming Equipment/Activities)	2	1	0	5
Weather Conditions - Lightning	1	1	2	3

Figure 19: Bushfire Ignition causes in the Shire of Woodanilling 2020/21 – 2023/24[34]

Note: Anecdotal evidence would suggest that not all fires in the region are reported and therefore will not be reflected in these statistics.

[33] Shire of Woodanilling Report Package 31/07/2024 Local Government DFES Report Pack, Produced by the OIS Branch
[34] Shire of Woodanilling Report Package 31/07/2024 Local Government DFES Report Pack, Produced by the OIS Branch

Lessons Learned from the February 2020 Katanning Fire

The Katanning Fires of February 2020 were some of the worst on living memory. This fire is of direct relevance to Woodanilling as Katanning is only 15 minutes by car from Woodanilling.

On 7 February 2020, a fire started north west of Katanning. That afternoon and evening farms, buildings and fences were damaged, but thanks to the incredible efforts of volunteer firefighters, the fire was contained. However, the following day catastrophic fire conditions developed with winds at 50 kilometres an hour and the temperature above 40 degrees Celsius. As the fire and conditions intensified, the community braced for what soon became an out-of-control bushfire heading straight towards the town of Katanning. The battle continued long into the night with a strong westerly pushing the fire right to the edge of the town on two sides.

At the peak of the fire there were over 300 firefighters, water bombers and soon a Boeing 737. One home was sadly lost, and others damaged. Over 4,000 hectares was burnt, 80 kilometres of fencing was destroyed, 50 power poles were down, and livestock was lost. Response teams included volunteer farmers, and bush firefighters from across WA and surrounding shires.

The CESM for the area provided an overview of the lessons learned from the Katanning Fire which started just north of the Shire boundary on Friday 7 February 2020 and impacted the Katanning townsite on Saturday 8 February 2020.

- Lack of resources for traffic management and ineffective road closures;
- Contacts and Resources lists for contractors in the area need to be updated;
- Lack of back-up power to Incident Control Centre (shire office).
- Ideally backup power should be available for wifi and the Shire Depot;
- Knowledge and understanding of emergency management structure, agencies and roles should be shared across the local government;
- Information regarding access arrangements to shire buildings should be readily available
- Opportunity to use neighbouring shire staff in the incident management team – eg taking minutes, scribing etc
- When a fire impacts a townsite, it has a long term impact. Recovery is the responsibility of the local government, and all sectors of the community should be considered in planning recovery, especially those who are socially isolated.

Further to this, it was made abundantly clear to the Shire of Woodanilling that the following is vital:

- Community Awareness and preparedness
- Fuel Management and Town Mitigation Works complete and maintained
- A strong volunteer base is maintained and trained to deal with fires of this scale and magnitude
- Aftercare is vital to the psychological safety of our volunteers and community

Current bushfire risk management controls

In addressing the bushfire risk posed by hazardous fuels on private land within the Shire of Woodanilling, a traditional yet effective strategy involves the enforcement of the Firebreak Order in accordance with the Bush Fires Act – section 33. This order serves as a foundational document for mitigating bushfire hazards on private properties.

However, it is noteworthy that several government agencies own and manage land within the Shire, and in contrast to private landholders, they are not obligated to adhere to the Shire's firebreak notice. This lack of a minimum requirement leads to disparities in land management priorities, frequency, and extent of land management activities among these agencies.

To address this inconsistency and enhance collaborative risk mitigation efforts, this plan strives to bridge the gap. By recognising key stakeholders, identifying relevant contacts within these organisations, establishing accountability measures, and fostering collaboration, the plan aims to improve overall risk management for the Shire and its community. This approach ensures a more cohesive and coordinated strategy for bushfire risk reduction across both private and government- managed lands.

The Shire of Woodanilling has been very active in managing bushfire risk with the development of the previous plan covering the period 2017 – 2022. During this time, the Shire of Woodanilling has accessed significant Mitigation Activity Funding through the Western Australian Government to undertake an annual program of mitigation activities.

As the majority of land in the Shire of Woodanilling is owned by Private Landholders, the Shire requires landholders to actively manage their properties through the annual fire break notice. These include items such as:

- the requirement for mobile firefighting units,
- the requirement for low fuel zones around buildings, homesteads, and haystacks
- the requirement for fire access ways,

The Southern WA fire season is typically from November through to April with the Shire of Woodanilling determining their ‘Restricted Burning’ times as follows:

- 19th September to 31st October: Restricted Burning (permits required)
- 1st November to 14th February: Prohibited Burning
- 15th February to 15th April: Restricted Burning (permits required)

The Shire of Woodanilling annual Bushfire mitigation activity program maintains the works (estimated total expenditure to date of $400,000) undertaken in the past 7 years. This includes the following annual program:

- Spraying of firebreaks/access trails
- Slashing of fire breaks
- Slashing of access trails

Further to this, the Shire of Woodanilling has an active community awareness and engagement plan which includes:

- Releasing information on the Shire’s Facebook Page, Website and locally produced newsletter ‘The Wongi’

- Holding community meet and greet events to provide information
- Holding a pre-season Fire Breakfast for our volunteers and community
- Conducting on site learning opportunities through the engagement with Central Brigade

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.

Vehicle Movement Bans

Harvest and Vehicle Movement Bans may be issued as a result of the risk posed by agricultural practices during severe weather events.

Harvest and Vehicle Movement Bans are issued by the Chief Bushfire Control Officer (CBFCO), as the Local Government representative in consultation with relevant stakeholders. A Harvest and Vehicle Movement Ban is a ban that individual local governments are responsible for issuing under the Bush Fires Regulations 1954 Section 38A, and/or Section 24C. Local government can impose the ban when their CBFCO is of the opinion that the use of engines, vehicles, plant or machinery during the prohibited burning times or the restricted burning times (or both) is likely to cause a fire or contribute to the spread of a bushfire.

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.

In 2023, Shire of Woodanilling records show that there were 12 Harvest and Vehicle Movement Bans were issued.

Total Fire Bans

A Total Fire Ban (TFB) is declared because of extreme weather conditions or when widespread fires are seriously stretching firefighting resources. A TFB is declared by DFES following consultation with local governments. TFB's apply to whole of local government boundaries and will often apply to more than one LG area.

Shire of Woodanilling records show that over the 2023/2024 season, a total of 2 Total Fire Bans were issued.[35]

Response Capacity

The community of Woodanilling has a strong 'Emergency Services' volunteering culture however, consistent with State trends, this number is on the decline. As of July 2024, there were 125 registered Bushfire volunteers in the Shire of Woodanilling, with 41.6% of volunteers aged above 55. The age demographics of the Emergency Service Volunteers highlights the need for a considered approach to succession planning.

[35] Shire of Woodanilling, Internal Records accessed 1st August 2024

Volunteer Summary for LGIS	Age Group						
Volunteer Position	**Age N/A**	**<=18**	**<=55**	**56-65**	**66-70**	**71+**	**Total**
Junior or Cadet Rank	0	1	0	0	0	0	1
Active Operational	8	2	61	26	13	11	121
Non-Operational	0	0	1	1	0	1	3
Total	8	3	62	27	13	12	125

Bushfire Brigade Personnel Summary
as at 31/07/2024

Brigade	Captain	Volunteer Members	ID Card Received	Attended Incident Last 2 Yrs	Vol. Hub Access	IRS Access	WebEOC Access
BEAUFORT KENMARE BFB	BELINDA MURRAY	21	1	14	5	0	0
BOYERINE/WESTWOOD BFB	GREGORY DOAK	22	0	16	2	0	0
CARTMETICUP BFB	WAYNE SHACKLEY	38	0	14	3	0	0
GLENCOE BFB	BRADEN CROSBY	18	0	6	2	0	0
SHIRE WOODANILLING		N/A	0	1	8	0	1
WOODANILLING CENTRAL BFB	IAN GARSTONE	27	0	5	6	0	0

Figure 20: Volunteer Summary for the Shire of Woodanilling[36]

The figures above however do not reflect the many farmer response personnel, sometimes referred to as 'spontaneous volunteers', who are not officially registered as Emergency Services (ES) Volunteers, but spring into action upon the first sight or smell of smoke. In line with the Shire's demographics, it is expected that the majority of registered ES Volunteers are farmers.

The high reliance upon farmers for response can become an issue at the completion of harvest. The local agricultural industry peaks in late October through to late December with the curing of crops and harvesting. Following this, many farmers take their annual leave which often involves leaving the Shire with their families. The consequence of this is the potential for fewer resources being available for observing and reporting bushfires and possibly reduced response and suppression capability during the critical summer months.

Of the six Brigades in the Shire, all but the Woodanilling Central Brigade are classified as 'Farmer Response Brigades' meaning that they do not have their own issued fire appliance, rather relying upon privately owned 'farmer response' firefighting units. Woodanilling Central Brigade has been assigned a Rural Tanker.

Resource Name	Resource Type
Shire of Woodanilling FCO Vehicle	Car
Shire of Woodanilling Grader	Grader
Shire of Woodanilling Grader	Grader
Shire of Woodanilling Water Carrier	Water Carrier – 1000L
Woodanilling Central BFB	4.4 Rural

Table 5: Emergency Services & Volunteer Appliances within the Shire of Woodanilling as at 2 August 2024

[36] Shire of Woodanilling Report Package 31/07/2024 Local Government DFES Report Pack, Produced by the OIS Branch

In addition to the registered firefighting appliances detailed above, most farmers have private firefighting units including decommissioned DFES appliances. Farmer response units within the Shire are seen as a critical resource as they are the mainstay of the Shire's response capacity.

Chapter 5 Asset identification and risk assessment

Assets at risk from bushfire in Shire of Woodanilling 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. Local government asset risk profile

A summary of the risks assessed in the Shire of Woodanilling is shown in Table 6. 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	**26.2%**	**28.7%**	**12.9%**	**8.4%**	**6.9%**
	Economic	**2.9%**	**2.5%**	**2.9%**	**1%**	**3.5%**
	Environmental	**-**	**-**	**2.5%**	**0.5%**	**-**
	Cultural	**0.5%**	**-**	**-**	**-**	**0.5%**

Table 6: Local Government Asset Risk Summary

Chapter 6 Risk evaluation

5.1. Risk acceptance criteria

The acceptable level of risk for each asset category is shown in Table 7. A risk that is assessed as exceeding these limits will be considered for treatment.

	Asset category			
	Human settlement	**Economic**	**Environmental**	**Cultural**
Acceptable risk level	**Medium**	**Medium**	**High**	**High**

Table 7: Risk acceptance criteria for bushfire risk in Shire of Woodanilling

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 8 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 8: Treatment priorities

Chapter 7 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 Woodanilling. 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 Treatment Strategy serves as the cornerstone of the Shire of Woodanilling's bushfire risk management efforts, providing a detailed roadmap for addressing the challenges posed by bushfires across the region. The strategy is an evolution on the original Shire of Woodanilling Bush Fire Risk Management Plan 2017-2022. Developed through careful analysis of various factors, including risk distribution, community values, stakeholder programs, and treatment constraints, this strategy represents a comprehensive approach to safeguarding lives, property, and natural resources from the threat of bushfires.

At its core, the strategy emphasises the importance of aligning treatment preferences with the specific vulnerabilities and characteristics of different areas within the Shire. Recognising the diverse ecosystems and landscapes present, it underscores the need for tailored approaches that consider factors such as land use patterns, vegetation types, and resource availability. By doing so, the strategy ensures that treatment efforts are targeted and effective, maximising their impact in reducing bushfire risk.

The strategy outlines three levels of response: Primary, Secondary Response, and Last Resort. Each level corresponds to a set of treatment measures tailored to address specific aspects of bushfire risk. The preference levels are crafted with thoughtful consideration of the following components:

Land Use Characteristics:

The nature and purpose of land use in a specific area impact factors such as fuel load, accessibility, and vulnerability to bushfires.

Land Transformation and Development:

Changes in land development, such as urbanisation or agricultural expansion, alter the natural state of the landscape, influencing fire behaviour and treatment selection differently.

Vegetation Characteristics and Composition:

Different vegetation characteristics and types contribute variably to managing fuel load, the viability/quality of vegetation, biodiversity, and whether it consists of native or introduced species. Mismanagement of these factors can have potential negative long- term impacts on the environment and fuel load.

Local Capabilities:

The availability of resources, infrastructure, and personnel within a specific locality influences the feasibility of certain response measures. Understanding local capabilities ensures the formulation of realistic and achievable strategies.

The Primary Response encompasses proactive measures aimed at mitigating risk, while the Secondary Response provides additional support and contingency options. In extreme scenarios, the Last Resort offers decisive actions to manage high-risk situations effectively.

Central to the strategy's success is its focus on collaboration and partnership. By engaging with stakeholders, including local communities, government agencies, and emergency services, the strategy leverages collective expertise and resources to achieve its objectives. This collaborative approach ensures that treatment efforts are informed by local knowledge and priorities, enhancing their relevance and effectiveness.

The Treatment Strategy represents a proactive and holistic approach to bushfire risk management in the Shire of Woodanilling. Through careful analysis, strategic planning, and collaboration, the strategy aims to reduce the impact of bushfires on the community and environment, safeguarding the region for future generations.

Shire managed land within Gazetted Townsite:

Preference	Method type	Description
Primary response	Vegetation management	Continue to modify or remove excess vegetation to create new and maintain existing breaks and reduce fuel density.
	Firebreaks/Access Tracks	Removal of vegetation to create and maintain existing vehicle accessible tracks.
Secondary response	Herbicide	Targeted use of herbicides to control invasive or highly flammable plant species.
Last resort	Controlled Burns	Prescribed burns to reduce accumulated fuel loads and prevent the spread of large, intense fires.

Rural Urban Interface:

Preference	Method type	Description
Primary response	Community Planning	Educating defensible space around homes
		Community education programs around preparedness and household bushfire plan creation.
		Implementing and educating SPP 3.7, AS3959 and other associated resources for new developments
	Building Design and Retrofitting	Educate, construction and retrofitting of structures with fire-resistant materials and features.
	Ember-Resistant Landscaping	Educating, selecting and maintaining vegetation that is less likely to ignite from embers.
	Fire break notice	Compliance to the Shire of Woodanilling Firebreak notice.
Secondary response	Herbicide	Targeted use of herbicides to control invasive or highly flammable plant species.
	Vegetation management	Modify or remove excess vegetation to create and maintain existing breaks and reduce fuel density.
	Firebreaks/Access Tracks	Removal of vegetation to create and maintain existing vehicle accessible tracks.
Last resort	Controlled Burns	Prescribed burns to reduce accumulated fuel loads and prevent the spread of large, intense fires.

Agricultural Environment:

Preference	Method type	Description
Primary response	Community Planning	Educating defensible space around homes
		Implementing and educating SPP 3.7, AS3959 and other associated resources for new developments
	Building Design and Retrofitting	Educate, construction and retrofitting of structures with fire-resistant materials and features.
	Ember-Resistant Landscaping	Educating, selecting and maintaining vegetation that is less likely to ignite from embers.
	Fire break notice	Compliance to the Shire of Woodanilling Firebreak notice.
	Vegetation management	Continue to modify or remove excess vegetation to create new and maintain existing breaks and reduce fuel density.
	Firebreaks/Access Tracks	Removal of vegetation to create and maintain existing vehicle accessible tracks.
	Herbicide	Targeted use of herbicides to control invasive or highly flammable plant species.
Secondary response	Controlled Burns	Prescribed burns to reduce accumulated fuel loads and prevent the spread of large, intense fires.

Road reserves:

Preference	Method type	Description
Primary response	Herbicide	Targeted use of herbicides to control invasive or highly flammable plant species.
Secondary response	Vegetation management	Continue to modify or remove excess vegetation to create new and maintain existing breaks and reduce fuel density.
Last resort	Controlled Burns	Prescribed burns to reduce accumulated fuel loads and prevent the spread of large, intense fires.

Woodland/Reserves Environment:

Preference	Method type	Description:
Primary response	Understory Management	Modifying understory vegetation to break up fuel continuity.
	Firebreaks/Access Tracks	Removal of vegetation to create and maintain existing vehicle accessible tracks.
Secondary response	Selective Thinning	Continue to modify or remove excess vegetation to create new and maintain existing breaks and reduce fuel density.
	Herbicide	Targeted use of herbicides to control invasive or highly flammable plant species.
Last resort	Controlled Burns	Prescribed burns to reduce accumulated fuel loads and prevent the spread of large, intense fires.

The inclusion of controlled burns in this treatment strategy is a critical consideration. However, implementing this practice in a natural environment requires meticulous planning, extensive knowledge, and careful timing, presenting challenges in resource allocation. Timing is especially crucial, with the most suitable period often aligning with seeding or harvest seasons. This synchronisation is essential for minimising disruptions to agricultural operations and mitigating potential risks associated with poorly timed or under-resourced burns. Consequently, controlled burns are designated as a last resort measure, aimed at reducing burdens on emergency services and avoiding the pitfalls of ill-informed or inadequately supported burn operations.

As noted earlier on page 33, recent records suggest that 78% of bush fires in Woodanilling were the result of human activity including Burn Off Fires (25%), Vehicles (incl. Farming Equipment/Activities) (25%), and Power Lines (16%) making up the majority of these ignition causes. The treatment strategy acknowledges the importance of non-physical mitigation measures. This includes integrating community engagement, educational programs, and regulatory measures into the overall framework to address bushfire risk comprehensively.

It's important to note that effective bushfire risk treatments often involve a combination of these strategies, and their success depends on factors such as community engagement, ongoing monitoring, and adaptability to changing conditions. Collaboration between land managers, communities, and fire authorities is essential for comprehensive and successful bushfire risk management.

The Shire of Woodanilling's treatment strategy adopts a modifiable approach to bushfire risk management. By addressing unacceptable risks, considering the influence of various factors, involving the broader community, and integrating diverse treatments, the strategy aims to enhance overall resilience and reduce the impact of bushfires on the district.

Holistic Strategy:

The Shire is consistently investing in the development of long-term strategies for sustained bushfire risk reduction, this includes measures such as land-use planning, community education, and policy changes that contribute to a resilient and fire-safe environment.

6.2. Treatment Schedule

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

A treatment schedule for the Shire of Woodanilling covering the life of this plan has been entered to 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 licenses to undertake an activity. Where agreed, another agency may manage a treatment on behalf of a land manager.

Chapter 8 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 Woodanilling 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 Woodanilling CEO or their delegate will provide to OBRM the outcomes of biennial reviews of the BRM Plan. This is required to maintain OBRM endorsement of the Plan.

The Shire of Woodanilling 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	Local Government Wide Controls
Appendix B	Communication Plan
Appendix C	Annual review checklist

Appendix A – Local government wide controls

Control		Action or activity description	Lead agency	Other stakeholder(s)	Notes and comments
1 & 2	Firebreak Notice (Bush Fires Act 1954) Prohibited, Restricted Burning Times and Total Fire Bans. Bush Fire Control (Bush Fires Act 1954)	Annual LG Firebreak Notice	Shire of Woodanilling	Landowners Land Managers Shire of Woodanilling Ranger	Published Annually. Inspect local properties. 'Fire Access Track' has the same meaning as 'Fire Break', in the Bush Fires Act 1954.
3	Total Fire Ban Declaration	Restriction of activities that may cause or contribute to the spread of a bushfire	DFES	Shire of Woodanilling Western Power Water Corporation Local Residents	A Total Fire Ban (TFB) is declared because of extreme weather conditions or when current operational commitments have reduced statewide resources / capabilities. A TFB is declared by DFES following consultation with the LG.
4	Harvest and Vehicle Movement Bans	Restricting the movement of vehicles during harvesting in the Bushfire Season.	Shire of Woodanilling	Shire of Woodanilling Western Power Local Residents	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	Townsite UCL/UMR land management	Preparedness, mitigation work conducted on lands owned by Department of Planning, Lands and Heritage (DPLH) and managed by DFES.	DFES	Bushfire Brigades DPLH	Annual funding is allocated to UCL/UMR land within gazetted boundary with priorities identified in consultation with stakeholders and managed through DFES.
6	Rural UCL/UMR land management	DBCA's indicative burn program, conduct mulching and other mechanical treatments to reduce fuel load or provide fire access.	DBCA	-	Plans can be accessed via the DBCA website.
7	Shire land management	Shire program to maintain access tracks, reduce fuel load and remove hazards as required.	Shire of Woodanilling	Woodanilling Bushfire Brigades	Fuel reduction program on all Shire of Woodanilling reserves. This includes access track installation and maintenance, weed reduction (slashing, spraying), vegetation thinning and removal and prescribed burning.
8	State planning framework and local planning schemes	Implementation and compliance with SPP3.7 and the Bushfire Protection Criteria of the Guidelines for Planning in Bushfire Prone Areas where required	Shire of Woodanilling	WAPC Landowners	State planning framework and local planning schemes, implementation of appropriate subdivision and building standards in line with DFES, WAPC and Building Commission policies, guidelines and standards
9	State-wide arson prevention programs	Police infringement and reward schemes to prevent arson. various awareness campaigns and information packages	DFES WAPOL	Shire of Woodanilling General Public	Participation as required. The Shire participates in campaigns for arson prevention. The LG assists in the promotion of Arson prevention campaigns
10	Public School Bushfire Management	A plan designed to assist staff to prepare for a total fire ban, catastrophic fire danger rating, or a bushfire.	Dept of Education	DFES Shire of Woodanilling	This plan was developed in accordance with the Emergency and Critical Incident Management Policy

Appendix B – Communication Plan

This Communication Plan supports the development, implementation and review of the Shire of Woodanilling 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 Woodanilling 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.

Roles and responsibilities

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

- Chief Executive Officer of the Shire of Woodanilling is responsible for requesting OBRM endorse the BRM Plan.
- Chief Executive Officer or Community Emergency Services Manager of the Shire of Woodanilling is responsible for communication of the BRM Plan to the community.
- Chief Executive Officer or Community Emergency Services Manager of the Shire of Woodanilling is responsible for communication between the Shire and the Department of Fire and Emergency Services.

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
Shire of Woodanilling (Inc BFB, BFAC & LEMC)	• Asset owner & vested Reserves • Bushfire Risk Management Plan Custodian • Responsible for development, implementation and review of treatments as a proprietor and land manager.	**High**	Inform, Educate, Collaborate, Empower
Local Governments bordering the Shire of Woodanilling	• Shared Experience	**Low**	Inform
Department of Fire and Emergency Services (Inc Brigades, OBRM & BMB)	• Asset Owner & Land Manager • Bushfire Risk Management Plan Governance and Advice • Support role in treatment implementation • Responsible for development, implementation and review of treatments as a Land Manager.	**High**	Inform, consult, involve, collaborate
Department of Biodiversity, Conservation and Attractions	• Vested Reserves & Land Manager • Bushfire Risk Management Plan Consultation and Advice • Responsible for development, implementation and review of treatments as a Land Manager.	**High**	Inform, consult, involve, collaborate
Department of Planning, Lands and Heritage	• Vested Reserves • Land Management Governance and Advice	**Low**	Inform & consult
Department of Water and Environmental Regulations	• Land Management Governance and Advice	**Low**	Inform & consult
Water Corporation	• Asset Owner, Vested Reserves & Land Manager • Bushfire Risk Management Plan Consultation and Advice	**Medium**	Inform, consult, involve, collaborate
Main Roads	• Asset Owner, Vested Reserves & Land Manager	**Medium**	

	• Bushfire Risk Management Plan Consultation and Advice • Critical Infrastructure Owner		Inform, consult, involve, collaborate
Western Power	• Asset Owner, Vested Reserves & Land Manager • Bushfire Risk Management Plan Consultation and Advice • Critical Infrastructure Owner	**Medium**	Inform, consult, involve, collaborate
Public Transport Authority	• Asset Owner, Vested Reserves & Land Manager	**Medium**	Inform, consult, involve, collaborate
Telstra	• Asset Owner, Land Manager	**Medium**	Inform & consult
Asset Owners, Business Owners, Private Land Owners & Woodanilling Community	• Asset Owner, Land Manager	**High**	Inform, consult, involve, collaborate, empower

Communications log

This Communications log captures the communications with key internal and external stakeholders that occurred during the 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
Review of the Shire of Woodanilling's updated BRM Plan						
2017 - 2022	Various	Development of the Shire of Woodanilling Bushfire Risk Management Plan 2017 - 2022	Risk, Treatment Options, BRMP Development	Various	N/A	Ongoing
June 2024	LEMC	Regular meeting with discussion on localized risks	Risk Register	In Person Meeting	Fire seasons are expected to be worse than previous years.	Ongoing Meetings
June 2024	Consultants	To obtain consultant to update the BRMP	BRMP update	Emails	It is difficult to obtain a consultant to update the Woodanilling BRMP	N/A
July 2024	WALGA	BRMS	Woodanilling Risk	Phone Conversation/Emails	Woodanilling BRMS updates are minimal	BRMS to be finalized on submission of BRMP
July 2024	Woodanilling CESM	BRMP Review and Development of Treatment Schedule	Woodanilling BRMS, Volunteers Register and Statistics on recent incidents	In Person Meeting / Emails	N/A	Ongoing for support, feedback and advice
July 2024	Shire of Woodanilling Community	Shire of Woodanilling Strategic Community Plan Consultation	Strategic vision for the next 10 years for the community	In person and surveys	Bushfire training is important to the community. The Fire Brigades would welcome further investment in equipment. Succession Planning is important	Every 2 years
August 2024	DFES, WALGA, CESM, Shire of Woodanilling	BRMP Finalisation	BRMP reviews for endorsement	In person / Phone / Emails	N/A	Ongoing

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
Life of Plan	DFES OBRM BRMB	ALL	• Email • Teams Meetings • Phone call	• Inform • Consult • Progress update • Issues identification and action planning	CEO or Delegate	• Time constraints • No clear message • Incorrect audience • Conflicting priorities	• Careful planning Time management	Feedback, questions and level of support received
Life of Plan	Shire of Woodanilling (inc BFB/BFAC)	ALL	• Email • In Person Meetings • Phone call	• Inform • Consult • Progress update • Issues identification and action planning	CEO or Delegate	• Time constraints • Availability • Lack of understanding • Budget (for LG mitigation) • Resource constraints • Stakeholder's willingness to participate	• Preparation • Time management • Clarify misunderstandings and intentions of plan	Feedback, questions and level of support received
Life of Plan	Other significant Stakeholders	ALL	• Email • In Person Meetings • Phone call • Presentations • Community engagement	• Inform • Consult • Progress update	CEO or Delegate	• Time constraints • Availability • Lack of understanding • Resource constraints • Stakeholder's willingness to participate	• Preparation • Time management • Clarify misunderstandings and intentions of plan	Feedback, questions and level of support received

Appendix C – Biennial review checklist

Annual review checklist to be completed and submitted to the Office of Bushfire Risk Management (OBRM) by 30 May 2026.

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 A	☐ Local government wide controls includes current treatment programs in local government area.
Appendix B	☐ 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.	