

City of Rockingham

# Bushfire Risk Management Plan

2026 - 2028



# Document Control

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## Document Endorsements

This Bushfire Risk Management Plan has been endorsed by the Office of Bushfire Risk Management as consistent with the standards detailed in the Guidelines for Preparing a Bushfire Risk Management Plan 2024.

The approval of the Bushfire Risk Management Plan by the City of Rockingham 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 City of Rockingham.

| Local Government                                                                | Representative               | Signature                                                                           | Date       |
|---------------------------------------------------------------------------------|------------------------------|-------------------------------------------------------------------------------------|------------|
| City of Rockingham                                                              | Director Asset Services      |   | 14/09/2026 |
| City of Rockingham                                                              | Senior Bushfire Risk Officer |  | 22/9/26    |
| Department of Fire & Emergency Services                                         | Representative               | Signature                                                                           | Date       |
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### Acknowledgement of Country

The City of Rockingham acknowledges the Traditional Owners and Custodians of this land, the Binjareb and Whadjuk Nyoongar peoples, and their continuing connection to the land, waters and community. We pay our respects to all members of Aboriginal communities and their cultures, and to Elders past and present.



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# Chapter 1 Introduction

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## 1.1. Background

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

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

## 1.2. Objective of the Bushfire Risk Management Planning Program

The BRM planning program supports local governments to reduce the threat posed by bushfire. The City of Rockingham BRM Plan will contribute to achieving the objective of the BRM Planning 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*.

### 1.3.1 Other Related Documents

- National Statement of Capability for Fire and Emergency Services (AFAC 2023)
  - Bushfire Risk Management Planning Handbook (DFES)
  - Bushfire Risk Management System (BRMS) User Guide (DFES)

### 1.3.2 City of Rockingham Related Documents

- City of Rockingham suite of documents collectively referred to as the Local Emergency Management Arrangements (LEMA)
- City of Rockingham Fire Control Notice (annual notices)
- City of Rockingham Bushfire Risk Management Plans for individual properties
- City of Rockingham Town Planning Scheme No.2
- City of Rockingham Strategic Community Plan (SCP) 2023-2033
- City of Rockingham Community Plan Strategy (CPS) – Bushfire Risk Mitigation
- Warnbro Dunes Bushfire Treatment Plans 2024
- Planning Procedure No.1.21 Requirements for Planning Proposals in Bushfire Prone Areas
- City of Rockingham Burning of Rubbish, Refuse and Vegetation Council Policy
- City of Rockingham Foreshore Management Plan 2024
- City of Rockingham Urban Forest Strategy (2025 – 2030)
- City of Rockingham Local Planning Strategy
- City of Rockingham Rural Planning Strategy 3.1.1
- Community Safety and Support Services Strategy 2022 – 2027
- City of Rockingham Planning Policy No.3.1.1 Rural Land Strategy
- City of Rockingham Planning Policy No 7.2 Local Bushland Strategy
- City of Rockingham Planning Policy No 7.2 Assessment of Local Bushland
- City of Rockingham Risk Management Framework

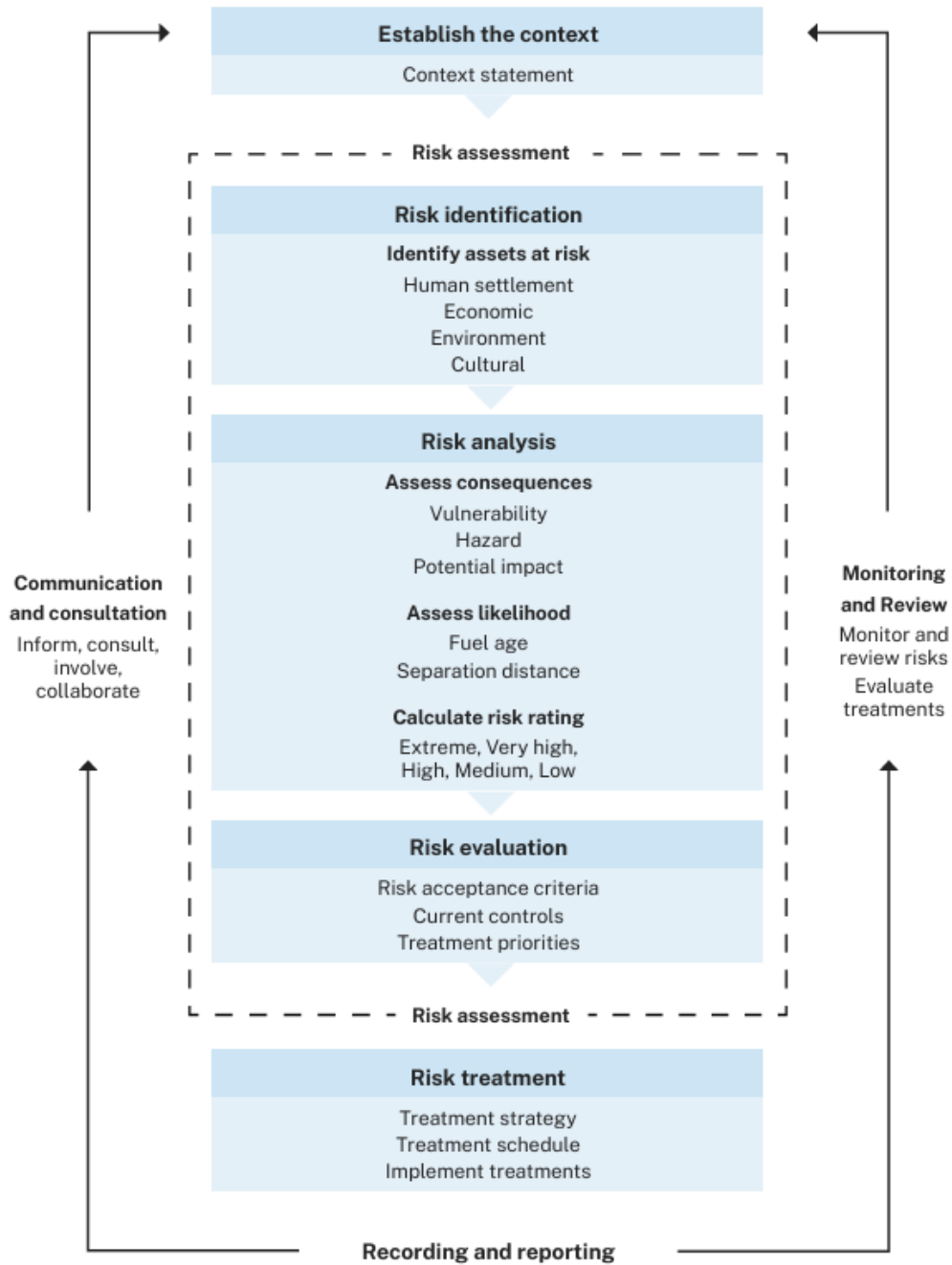


## Chapter 2 The Risk Management Process

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The BRM planning process is a cycle of understanding the context and assessing and treating risks. 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.

Further details on the guiding principles and process for the development of this plan can be found in Chapter 2 of the Guidelines. See link to [BRM Plan Guidelines](#).



## 2.2. Roles and Responsibilities

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

Table 1: Roles and Responsibilities in the Bushfire Risk Management (BRM) Planning Process

| Stakeholders                                                                 | Roles and Responsibilities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Local Government</b>                                                      | <ul style="list-style-type: none"> <li>• Custodian of the BRM Plan.</li> <li>• Coordinate the development and ongoing review of the BRM Plan.</li> <li>• Undertake bushfire risk assessment of local government area.</li> <li>• Submit the draft BRM Plan to OBRM for review and endorsement.</li> <li>• Develop and implement a Treatment Schedule for local government managed land.</li> <li>• Encourage risk owners to treat identified risks.</li> <li>• Communicate the plan to the community</li> </ul>                                                                                       |
| <b>DFES</b>                                                                  | <ul style="list-style-type: none"> <li>• Contribute to the development and implementation of the BRM Plan.</li> <li>• Facilitate involvement of state and federal government agencies in the BRM planning process.</li> <li>• Undertake treatments on unmanaged reserves and unallocated Crown land within gazetted town sites.</li> <li>• By agreement, implement treatment strategies for other land managers.</li> <li>• Endorse BRM Plans as consist with the Guidelines, BRM Program and dynamic risk environment.</li> <li>• Administer the Mitigation Activity Fund Grants Program.</li> </ul> |
| <b>Department of Biodiversity, Conservation and Attractions (DBCA)</b>       | <ul style="list-style-type: none"> <li>• Contribute to the development of the BRM Plan.</li> <li>• Implement their treatment program on DBCA managed land.</li> <li>• Provide advice on environmental assets and appropriate treatment strategies for their protection.</li> </ul>                                                                                                                                                                                                                                                                                                                    |
| <b>Department of Planning, Lands and Heritage</b>                            | <ul style="list-style-type: none"> <li>• Identify managed assets.</li> <li>• Provide advice on management of Aboriginal Cultural Heritage.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Other State and Commonwealth Government Agencies and Public Utilities</b> | <ul style="list-style-type: none"> <li>• Identify managed assets.</li> <li>• Provide advice on current risk treatment programs.</li> <li>• Contribute to the development of BRM Plans.</li> <li>• Undertake treatments on lands they manage.</li> </ul>                                                                                                                                                                                                                                                                                                                                               |
| <b>Corporations and Private Landowners</b>                                   | <ul style="list-style-type: none"> <li>• Identify managed assets.</li> <li>• Provide advice on current risk treatment programs.</li> <li>• Undertake treatments on lands they manage.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                      |

## 2.3. Stakeholder Engagement

Engagement with stakeholders during the development, implementation and review of the BRM Plan ensures planning is based on comprehensive information which considers the values and objectives of the entire community.

The following table identifies key stakeholders in the BRM planning process. 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.

Table 2: Key Stakeholders Identified in the BRM Planning Process for the City of Rockingham

| Stakeholders                                             | Role or Interest                       | Level of Impact of Outcomes | Level of Engagement             |
|----------------------------------------------------------|----------------------------------------|-----------------------------|---------------------------------|
| <b>Department of Biodiversity and Attractions (DBCA)</b> | Land holder, environmental assets      | High                        | Inform, consult and participate |
| <b>Public Transport Authority (PTA)</b>                  | Land holder, critical infrastructure   | Medium                      | Inform, consult and participate |
| <b>Development WA</b>                                    | Land holder, critical infrastructure   | High                        | Inform, consult and participate |
| <b>Kwinana Industries Council</b>                        | Interested party                       | High                        | Inform, consult and participate |
| <b>Department of Planning, Lands and Heritage (DPLH)</b> | Land holder, environmental assets      | High                        | Inform, consult and participate |
| <b>Main Roads Western Australia</b>                      | Land holder, critical infrastructure   | Medium                      | Inform, consult and participate |
| <b>Private Developers</b>                                | Land owner                             | High                        | Inform, consult and participate |
| <b>Water Corporation</b>                                 | Land holder, critical infrastructure   | High                        | Inform, consult and participate |
| <b>Western Power</b>                                     | Land holder, critical infrastructure   | High                        | Inform, consult and participate |
| <b>State Housing Authority</b>                           | Landholder                             | High                        | Inform, consult and participate |
| <b>Alcoa of Australia Limited</b>                        | Major landholder, environmental assets | Medium                      | Inform, consult and participate |

| Stakeholders                          | Role or Interest                | Level of Impact of Outcomes | Level of Engagement             |
|---------------------------------------|---------------------------------|-----------------------------|---------------------------------|
| <b>Arc Infrastructure</b>             | Landholder                      | High                        | Inform, consult and participate |
| <b>Private Landholders</b>            | Landholder, human settlement    | High                        | Inform, consult and participate |
| <b>Warnbro Dunes Community</b>        | Landholder, human settlement    | High                        | Inform, consult and participate |
| <b>City of Rockingham</b>             | Project owner, major landholder | High                        | Inform, consult and participate |
| <b>City of Kwinana</b>                | Neighbouring LGA                | Low                         | Inform, consult and participate |
| <b>City of Mandurah</b>               | Neighbouring LGA                | Low                         | Inform, consult and participate |
| <b>Shire of Serpentine Jarrahdale</b> | Neighbouring LGA                | Low                         | Inform, consult and participate |
| <b>Shire of Murray</b>                | Neighbouring LGA                | Low                         | Inform                          |



## Chapter 3 Establishing the Context

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This Bushfire Risk Management Plan (BRM Plan) will assist in identifying and integrating best practice into the planning and delivery of bushfire mitigation programs within the City of Rockingham. The objective of the City's mitigation program is to ensure that life and property within the community is given the best possible protection from high intensity and devastating bushfires.

### 3.1 Strategic and Corporate Framework

State Hazard Plan - Fire requires an integrated Bushfire Risk Management Plan (BRM Plan) be prepared for each local government area across Western Australia. The BRM Plan is to be in accordance with the templates and guidelines prepared by the OBRM. The guidelines assign the preparation responsibility to local government.

The City of Rockingham Asset Services Directorate is responsible for overseeing the preparation of the BRM Plan. The Director Asset Services (DAS) is responsible for its ongoing implementation through the Senior Bushfire Risk Officer (SBRO).

Accepting that there are multiple stakeholders inside and outside of the local government involved in the effective implementation of the BRM Plan process, it is important to note that the City's responsibility is to facilitate the management of the risk of bushfires to the community as supported by the delivery of this plan.

The BRM Plan is linked to the City of Rockingham's Strategic Community Plan 2023-2033 objectives. Integrated planning enables the City of Rockingham a framework for establishing local priorities and to link this information to strategic objectives, including;

- Aspiration 1: Social – A family friendly, safe and connected community.
  - Community health and wellbeing – Reinforce a strong sense of safety.
- Aspiration 2: Natural Environment – A place of natural beauty where the environment is respected.
  - Protection of natural environment – Mitigate and adapt to climate change impacts.

The DAS is responsible for the development and review of the BRM Plan, and the SBRO is responsible for implementation of the BRM Plan. In addition, the City has bushfire mitigation and compliance teams to ensure on-ground works reflect the aims and objectives of the BRM Plan.

The BRM Plan encourages the community to work collaboratively and self-sufficiently in providing guidance and negotiating suitable treatment strategies for mitigation of bushfire risk. The responsible land holders will, as a result of the BRM Plan process, be able to allocate resources effectively in order to lower the bushfire risk to an acceptable level. Furthermore, existing and future works programs conducted by the City that have the potential to influence bushfire risk, will be identified, reviewed and refined and will utilise the BRM Plan risk register to prioritise resources and influence the decision-making process.

In completing the BRM Plan, asset identification and risk assessment is conducted by City using the risk assessment methodology described in the BRM Plan Guidelines. When appropriate, assessments will be conducted in consultation with relevant land owners and stakeholders. Identified assets will be mapped, recorded and assessed in the Bushfire Management System (BRMS) provided to local governments by the Department of Fire and Emergency Services (DFES).

The BRM Plan and BRMS outputs will be utilised in the review and refinement of existing works programs that are designed to reduce bushfire risk in the local government area. The Local Emergency Management Committee (LEMC) and Bushfire Advisory Committee (BFAC) actively review and report against the BRMP to address bushfire risk within the City. Furthermore, the BRMP forms part of the City's suite of documents collectively known as the Local Emergency Management Arrangements (LEMA).

### **3.2 Land Use and Tenure**

The City is located approximately 40 kilometres south of the Perth Central Business District (CBD). The City is comprised of 16 suburbs and encompasses an area of approximately 66,850 hectares (including marine reserve), with significant areas of coastline, conservation reserve and parkland.

The City borders with the City of Kwinana to the north, the Shire of Serpentine Jarrahdale to the East and the City of Mandurah to the south. The BRM Plan area covers the mainland of the City (which excludes marine reserve and Garden Island) and has an area of approximately 22,992 hectares.

The BRM Plan area is comprised of numerous land owners and managers including, but not limited to, the City, state government departments and agencies, infrastructure managers, property developers and also private land owners and corporations.

The challenge the City faces includes liaison and negotiation with multiple stakeholders with large bushland holdings to achieve bushfire mitigation outcomes.

The City has several areas and communities at risk from bushfires. These include communities living near large vegetated areas, including Paganoni Swamp, Warnbro Dunes, Port Kennedy Scientific Park, Lake Richmond and Lake Walyungup which may be vulnerable to bushfires, semi-rural areas east of the freeway and the East Rockingham Industrial Zone. The East Rockingham Industrial Zone and adjoining Kwinana Industrial Area contain many land uses that would be considered to be high-risk in terms of bushfire risk. Industrial operations in this area have the potential to ignite a bushfire, prolong its duration, or increase its intensity.

A brief overview of the percentage coverage of various land managers can be seen in Table 2. The City contains significant amounts of both freehold and reserve lands that are used for specific purposes, leased to community associations, or are unused or unallocated. All tenure will come under the same scrutiny when assessing bushfire risk.

Table 3: Summary of Land Management Responsibilities within the City of Rockingham

| Land Manager                                                    | Local Government Area (%) |
|-----------------------------------------------------------------|---------------------------|
| <b>Private</b>                                                  | 47.97                     |
| <b>WAPC</b>                                                     | 6.52                      |
| <b>City of Rockingham</b>                                       | 12.12                     |
| <b>Main Roads WA</b>                                            | 0.15                      |
| <b>Development WA</b>                                           | 15.18                     |
| <b>Department of Biodiversity, Conservation and Attractions</b> | 3.61                      |
| <b>State Housing Authority</b>                                  | 2.58                      |
| <b>Water Corporation</b>                                        | 0.95                      |
| <b>UCL</b>                                                      | 3.29                      |
| <b>Other State Agencies</b>                                     | 7.40                      |
| <b>Total</b>                                                    | 100                       |

Source: City of Rockingham – Intramaps Online Mapping

### 3.3 Community Demographics and Values

In the 2021 Census, there were 159, 934 people residing within the City of Rockingham.

The breakdown is as follows;

|                                             |                 |
|---------------------------------------------|-----------------|
| Male                                        | 49.4%           |
| Female                                      | 50.6%           |
| Aboriginal or Torres Strait Islander people | 2.7%            |
| Median age of people in Rockingham          | 36 years of age |
| Children 0 – 17 years                       | 25.7%           |
| Adults 70 years and older                   | 9.8%            |

The high level of very young and elderly residents presents additional challenges in respect to response and recovery efforts during a bushfire incident.

The City has both urban and rural communities which present different challenges relating to bushfire management and education. The rapid growth on the urban fringe has resulted in an increase of residents residing in or very close to high bushfire risk / bushfire prone areas and who may have limited understanding or experience with bushfires.

There is a high level of compliance with the City's Annual Fire Control Notice (95% compliance in 2025-2026), however, the continued population growth within the City brings a subsequent increase in bushfire risk. Mitigation for risk and all related works require the City to protect a larger population and increasing number of assets.

Until recent times, land management regimes in non-urban areas were focused on maintaining biodiversity, with the retention of native vegetation being afforded priority above fire management imperatives. Current strategies now seek to strike a balance between bushfire management and environmental objectives where possible.

### 3.4 Cultural Heritage

Registered Aboriginal Cultural Heritage sites and Protected Areas are shown in the [Aboriginal Cultural Heritage Inquiry System \(ACHIS\)](#). This system will be consulted and appropriate approvals obtained when planning bushfire mitigation activities.

The City collaborates closely with:

- The Department of Planning, Lands and Heritage and Aboriginal.
- Knowledge Holders to protect Aboriginal Cultural Heritage sites.
- The Cultural Fire Program at the Bushfire Centre of Excellence to begin the process of application of cultural fire practices in Rockingham.

### 3.5 Economic Activities and Industry

The largest economic activities within the City, by employment and value added, are retail trade, health care and social assistance, and public administration and safety. The majority of these economic hubs are situated in low bushfire risk areas. The East Rockingham Industrial Zone and adjoining Kwinana Industrial Area contain many land uses that would be considered to be high-risk in terms of bushfire risk. Industrial operations in this area have the potential to ignite a bushfire, prolong its duration, or increase its intensity. These industries may also expose the community, fire fighters and the environment to dangerous, uncontrolled substances during a bushfire event. It is anticipated that potential 'hazard' risks due to 'chemicals' will be addressed by DFES as part of a Fire and Emergency Services Emergency Response Guides (FESERG) constructed by the local brigade's and available to DFES Communications Centre.

In accordance with BRM Plan Guidelines, all industries within the City within 100 metres of bushfire prone vegetation are potentially at risk from bushfire and will be scrutinised under the same risk assessment methodology. In 2021, in association with Development WA, the City, DFES and the Kwinana Industries Council, the City developed a Bushfire Management Plan to address bushfire risk of the under-developed land in the East Rockingham Industrial Zone. Industries that potentially have a higher bushfire risk (due to their increased likelihood of being affected by bushfire) may include those located in rural, semi-rural and peri-urban areas of the City. Some areas of Baldivis, Karnup, East Rockingham and Port Kennedy industrial zones are located in close proximity to bushfire prone vegetation which also puts them at risk. The Kwinana Freeway travels from north to south through the City, and a closure due to bushfires would have a serious impact on economic activity within the City and surrounding areas.

### 3.6 Topography and Landscape Features

The City is located on the Swan Coastal Plain which extends from the Darling Fault in the east to the continental slope west of Rottnest Island, and from the Murchison River in the north to the Southern Ocean in the south. The Swan Coastal Plain is approximately 20 to 30 kilometres wide consisting of a series of geomorphic entities running parallel to the coastline.

Soil landscape mapping produced by the Department of Agriculture and Food Western Australia (DAFWA) shows that the BRM Plan area has five soil landscape systems (1:250,000 scale) that generally run parallel to the coastline, which can be as seen in Appendix 1 – Drawing 1.

The unique elevation profiles, soil types and broad vegetation types associated with each mapped soil-subsystem can influence a fire's rate of spread (ROS), intensity and also create limitations when implementing treatments to manage the risk of bushfire and limit suppression activities (firefighting equipment access). Each soil-landscape system description and extent within the BRM Plan area can be seen in Table 4 below.

Table 4: Soil Landscapes within the City of Rockingham

| Soil System       | Description (McArthur <i>et al</i> 1960)                                                                                                                                                                                                                                                                                                                                                                         | Extent within BRM Plan (Ha) | Extent of BRM Plan Area (%) | Landscape Feature and Bushfire Mitigation Restrictions                                                                                                          |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Bassendean</b> | A gently undulating Aeolian sand plain about 20 km wide with the dunes to the north of Perth generally having greater topographic relief than those to the south. Other wetlands, consisting of swamps and lakes, have formed in the inter-dunal swales of the Bassendean Dune System, in the inter-barrier depressions between the Spearwood and Bassendean Dune Systems, and within the Spearwood Dune System. | 2112.2                      | 8.6                         | Wetlands in lower lying undulations areas have clearing and prescribed burning restrictions that prohibit effective bushfire mitigation from being implemented. |
| <b>Pinjra</b>     | A piedmont and valley flat alluvial plain consisting predominantly of clayed alluvium that has been transported by rivers and streams from the Darling and Dandaragan Plateaus.                                                                                                                                                                                                                                  | 4600.6                      | 18.8                        | Areas include the rural areas of Baldivis and Karnup east of Kwinana Freeway, Lake Cooloongup, and Lake Walyungup reserve areas in central regions of the City. |

| Soil System | Description (McArthur <i>et al</i> 1960)                                                                                                                                                                                                                                                                                                                                                                                                                                    | Extent within BRM Plan (Ha) | Extent of BRM Plan Area (%) | Landscape Feature and Bushfire Mitigation Restrictions                                                                                                                                                  |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Quindalup   | The most westerly dune system that flanks the ocean, is the Quindalup Dune System, consisting of wind-blown lime and quartz beach sand forming dunes or ridges that are generally orientated parallel to the present coast, but which may occupy blowouts within the Spearwood Dune System.                                                                                                                                                                                 | 8678.1                      | 35.4                        | Warnbro Dunes, Port Kennedy and other coastal areas have clearing and prescribed burning restrictions that prohibit effective bushfire mitigation from being implemented.                               |
| Spearwood   | Consists of slightly calcareous Aeolian sand remnant from leaching of the underlying Pleistocene Tamala limestone. The rivers crossing the coastal plain are flanked by clay floodplains and river terraces of recent origin. Other wetlands, consisting of swamps and lakes, have formed in the inter-dunal swales of the Bassendean Dune System in the inter-barrier depressions between the Spearwood and Bassendean Dune Systems, and within the Spearwood Dune System. | 7448.9                      | 30.4                        | Wetlands in lower lying undulations areas have clearing and prescribed burning restrictions that prohibit effective bushfire mitigation from being implemented.                                         |
| Vasse       | The Vasse deposits are largely estuarine and low-lying, and where exposed often lead to formation of Acid Sulfate Soils.                                                                                                                                                                                                                                                                                                                                                    | 1644                        | 6.7                         | Areas include the rural areas of Baldivis and Karnup east of Kwinana Freeway, Lake Cooloongup, and Lake Walyungup reserve areas in central regions of the City Burning and clearing restrictions exist. |

The Quindalup soil system is generally comprised of sandy limestone soils, undulating dunes and most often occurs near the coast. Coastal areas are subject to strong prevailing winds and are prone to sand drift amongst the dunes areas where any vegetation is removed. BRM Plan area coastal areas include Port Kennedy Scientific Park, Lark Hill and dune areas in the suburbs of Golden Bay, Peron, Port Kennedy, Rockingham, Singleton, Waikiki and Warnbro, are all located in the western coastal regions of the BRM Plan area.

The Bassendean and Spearwood soil systems, generally running north-south in the central regions of the BRM Plan area, often comprise of woodland vegetation types in elevated regions, and wetlands in lower lying undulations. Both areas are highly valued by the community for their aesthetic and ecological attributes. These soil systems gently rise and fall in elevation forming vegetated hills with high fuel loads that can increase the rate of spread and intensity of a fire. Areas include the urban, rural and semi-rural areas of Baldivis and Karnup that are west of the Kwinana Freeway. Recent fires in these areas have been significant and resulted in closure of the freeway causing disruption impacting on many local residents. Undulations within the Bassendean and Spearwood soil systems result in wetland formations such as the Tamworth Swamp and Stakehill Swamp that are heavily vegetated containing high bushfire fuel loads.

The Pinjarra and Vasse soil systems generally in the central and also eastern portions of the City, are associated with the Serpentine River. The soil is prone to acid sulphate soil occurrences and wetland vegetation comprising of high bushfire fuel loads. These areas have clearing, prescribed burning and earth moving restrictions that prohibit effective bushfire mitigation from being implemented. Areas include the rural areas of Baldivis and Karnup east of Kwinana Freeway, Lake Cooloongup, and Lake Walyungup reserve areas in central regions of the City.

### 3.7 Climate and Weather

High temperatures increase the likelihood of ignition and helps fires spread more rapidly by drying out vegetation. Low relative humidity when the air is dry, pulls moisture from the land, leaving vegetation more prone to burning. Strong winds supply oxygen to the fire, causing it to burn more intensely and spread faster. It can also carry embers to ahead of the main fire front, starting additional fires.

### 3.8 Climate

The south-west of Western Australia experiences a Mediterranean type of climate of mild, wet winters and warm to hot, dry summers. The climate of the region is strongly influenced by the position of a band of high pressure known as the sub-tropical ridge. For much of the year the ridge is located to the south allowing the east or south easterly winds to prevail. During the cooler months the ridge periodically moves to the north allowing cold fronts to pass over the west coast and deliver much of the annual rainfall. The Swan Coastal Plain typically receives 800 to 900 millimetres of annual precipitation and 5 to 6 nearly dry months per year. The closest Bureau of Meteorology (BOM) Station to the suburb of Rockingham with long-term data is Kwinana BP Refinery (station 009064, operated 1955-2012). Annual mean rainfall is 745.5 mm, with a single winter peak (highest in June-July), February is the hottest month with a mean maximum daily temperature of 29.5°C, July and August are coldest, with a mean minimum daily temperature of 10.6°C (BOM 2015).

Rockingham's prevailing winds blow from west, north-west and north in winter and spring, and south-west, south and east in summer, with higher winds tending to occur in later winter through to summer. The highest bushfire risk conditions are on days with high temperatures and strong easterly or south easterly winds. Sea breezes when strong can also increase bushfire risk conditions. On days that meet these conditions, the City actively monitors for evidence of fires and may stop the use of equipment from its staff in bushfire prone areas. These days generally align with days of Total Fire Bans, which the City then issues information to the community about.

The Fire Danger Rating is an indicator of how dangerous a bushfire could be if it did occur under the weather conditions for that day. It does not predict the likelihood of a bushfire occurring. Fire danger rating is used to help plan an adequate response, such as calling a total fire ban or harvest vehicle movement ban to reduce the risk of a bushfire starting where conditions are Very High or above.

### 3.9 Climate Change

Western Australia's climate has changed during the past century, with our State's South West region impacted by climate change more than almost any other place on the planet.

Western Australia now has higher average temperatures, and an increase in the annual number of days in Perth over 35 °C. There has also been a steady decline in rainfall, with a 60 per cent reduction of inflow to metropolitan dams since the 1970s.

Already one of the most fire-prone regions in the world, Western Australia's fire risk has increased over the past four decades, and fire seasons have lengthened due to warming, drying conditions. There have also been observed changes in sea levels, with the rate of sea level rise on the west coast almost three times the global average. In the future, climate change will drive increased average and maximum temperatures, time spent in drought and lead to more extreme weather events (Government of Western Australia 2019).

### 3.10 Vegetation and Fuel

The total amount of bushfire prone vegetation covers 15,860 ha (64.6%) of the BRM Plan area. There are nine vegetation complexes (Hedde et al. 1980) occurring within the City. Vegetation complexes groups vegetation types on the basis of patterns in soil and geomorphology. The nine vegetation complexes and their locations within the BRM Plan area are briefly summarised in Table 5 below and can be seen in Appendix 1 - Drawing 3. Each broad vegetation complex will influence potential fire behaviour based on its unique vegetation structure, fuel loading and the slope under the vegetation.

Table 5: Vegetation Complexes (DBCA 2019)

| Vegetation Complex                          | Summary Description                                                                                                                                 | Hectares Remaining in the City |
|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| <b>Guildford Complex</b>                    | Open forest to tall open forest and woodland.                                                                                                       | 4.23                           |
| <b>Dardanup Complex</b>                     | Mosaic of vegetation types characteristic of adjacent vegetation complexes such as Serpentine River, Southern River and Guildford.                  | 116.65                         |
| <b>Serpentine River Complex</b>             | Closed scrub of Melaleuca species and fringing woodland of Eucalyptus rudis (Flooded Gum) - Melaleuca raphiophylla (Swamp Paperbark) along streams. | 366.54                         |
| <b>Bassendean Complex-Central and South</b> | Woodland to low woodland and sedgelands.                                                                                                            | 912.09                         |

| Vegetation Complex                          | Summary Description                                        | Hectares Remaining in the City |
|---------------------------------------------|------------------------------------------------------------|--------------------------------|
| <b>Karrakatta Complex-Central and South</b> | Open forest and woodland.                                  | 1140.32                        |
| <b>Cottesloe Complex-Central and South</b>  | Woodland and open forest and closed heath.                 | 743.90                         |
| <b>Herdsmen Complex</b>                     | Sedgeland and fringing woodland.                           | 294.80                         |
| <b>Quindalup Complex</b>                    | Coastal dune complex – low closed forest and closed scrub. | 4108.59                        |
| <b>Yoongarillup Complex</b>                 | Woodland to tall woodland and open forest.                 | 442.23                         |

There are four (4) aspects of vegetation within the City that require particular attention, in context to bushfire mitigation treatment options;

1. Tall eucalyptus species with a mid-story of acacia and banksia species as well as larger grass trees and an understory of native grasses and herbs. These forests have low to high fine fuel loads with variable amounts of dry dead fuels, which mean that fire will easily start and spread quickly in this vegetation. Fires in this vegetation will often quickly reach the canopy due to the horizontal distribution of fuels creating high intensity fires which are not suitable for direct attack. Additionally, the majority of these forests are close to residential, industrial and community assets.
2. Remnant vegetation, including eucalypt and banksia species along roadsides and drains can produce a wick-like effect and are often associated with fire runs with marked changes in fire behaviour, intensity and spread expected in this vegetation. This impacts on residents' ability to escape fire events.
3. The City has a number of lakes and swamps that contain fuel tonnages that have the potential to cause an intense fire event. Surrounding woodland contain eucalypt species, mid-story paperbarks and lower story sedges. Adjacent to the lakes are vulnerable sites including the Rockingham Hospital, St Johns Ambulance and retirement homes. Additionally, reducing fuel loads though prescribed burning is difficult because of underlying peat soils and threatened ecological communities.
4. Acacia species (particularly *Acacia Rostellifera*) along Rockingham coastal areas have the ability to rapidly colonise dunes near residential areas and increase fuel loads to unacceptable levels. Fire can rapidly spread throughout Acacia shrublands.

### 3.11 Important Species and Communities

There are seven Threatened Ecological Communities (TECs) and four Priority Ecological Communities (PECs) found within the City, listed in Appendix 2. Under State and Federal environment legislation protection Banksia Woodlands of the Swan Coastal Plain ecological community (the 'Banksia woodlands'), the Tuart (*Eucalyptus gomphocephala*) Woodlands and Forests of the Swan Coastal Plain ecological community ('Tuart woodlands'), and the Sedgeland in Holocene dune swales of the southern Swan Coastal Plain ('Sedgeland in dune swales') are the most widespread.

Impacts of an inappropriate fire regime on ecological communities in the City can include:

- Structural change, e.g. reduction in canopy cover, removal of understorey;
- A change in species composition resulting in a loss of TEC or PEC status (and statutory protection);

- Increase in weed abundance, diversity and a decrease in native plant diversity and density;
- Changes to the ecological function of the ecological community;
- Feedback loops, promoting weed species (e.g. perennial veldt grass (*Ehrharta calycina*) which is highly flammable and promotes further fires);
- The loss of shelter habitat (e.g. dead logs, fallen timber, grass tree skirts);
- The loss of foraging habitat and food availability;
- Increased introduction of pathogens (e.g. *Phytophthora*);
- Increased predation rates by feral species;
- Selective grazing on seedlings and resprouting shoots from kangaroos;
- Increased nutrients (from the ashbed);
- Increased erosion of topsoil including seed and nutrients;
- Loss of vegetation, resulting in reduced bio filtering near surface water;
- Deterioration or exposure of organic soils.
- There are a number of conservation significant fauna species found within the City, inclusive of mammals, reptiles, amphibians, and birds. Bushfire mitigation activities may impact upon the following conservation significant fauna:
  - Quenda (*Isodon obesulus fusciventer*)
  - Brush-tailed phascogale (*Phascogale tapoatafa wambenger*)
  - Red-tailed forest black cockatoos (*Calyptorhynchus banksii naso*)
  - Carnaby's black cockatoo (*Zanda latirostris*)
  - Baudin's black cockatoo (*Zanda baudinii*)
  - Rainbow bee-eater (*Merops ornatus*)
  - Western false pipistrelle (*Falsistrellus mackenziei*)
  - Perth lined slider (*Lerista lineata*)
  - Jewelled south-west ctenotus (*Ctenotus gemmula*)
  - Black striped snake (*Neelaps calonotos*).

Bushfire mitigation may impact upon additional locally significant fauna known to be frequent in natural areas such as the brush-tailed possum (*Trichosurus vulpecula*), western grey kangaroo (*Macropus fuliginosus*), bobtail lizard (*Tiliqua rugosa*), and numerous reptile and amphibian species.

It is noted that there are also a large number of conservation significant birds not listed above that frequent the region. A majority of these are listed as 'Marine' or 'Migratory' under the EPBC Act and are not likely to be impacted by bushfire mitigation activities.

The impacts of bushfire mitigation activities on native fauna can include:

- Direct mortality of fauna;
- Loss of foraging habitat (e.g. seed sources for black cockatoos, day time use of mature tree hollows for bats like the Western False Pipistrelle);
- Loss of breeding habitat (e.g. removal of mature trees with hollows for Black Cockatoo species and possums);
- Loss of shelter and daytime nesting habitat (e.g. removal of logs, fallen timber and grass tree skirts for Quenda and reptiles);
- Increased predation and exposure due to loss of habitat;
- Direct mortality of chicks during breeding season (e.g. Black cockatoo chicks in hollows, trampling of rainbow bee-eater nests on the ground).

There are also a number of rare flora that are known to occur or may occur within the City:

- *Sphaerolobium calcicola*
- *Calandrinia oraria*
- *Dodonaea hackettiana* (Hackett's hopbush)
- *Diuris drummondii*
- *Synaphea* sp. Serpentine
- *Lachnagrostis nesomytica* subsp. *paralia*
- *Cardamine paucijuga*
- *Dillwynia dillwynioides*
- *Lasiopetalum membranaceu*
- *Conostylis pauciflora* subsp. *pauciflora*
- *Jacksonia sericea* (Waldjumi)
- *Lepidium puberulum*
- *Myosotis australis* (Austral Forget-me-not)
- *Beyeria cinerea* subsp. *cinerea*
- *Pimelea calcicola*
- *Johnsonia pubescens* subsp. *cygnorum*
- *Beyeria cineria* subsp. *cineria*.

The impacts of bushfire mitigation activities on protected flora may include but is not limited to the following:

- Direct mortality of plants during fire;
- Post-fire competition with weeds;
- Reduced post-fire recovery due to grazing by kangaroos or other herbivores;
- Loss of seed bank after high-intensity fires;
- Increased soil erosion.

The City has developed processes to identify the impacts of mitigation activities on threatened species and communities. When a burn or other mitigation activity is planned, environmental approval is required before any activity commences.

When undertaking bushfire mitigation in reserves of conservation value, as identified by the Community Plan Strategy – Natural Area Conservation or in areas with protected environmental values, City officers will seek environmental advice on proposed bushfire mitigation activities.

Important species and communities are listed on the Department of Biodiversity, Conservation and Attractions (DBCA): <https://www.dbca.wa.gov.au/management/threatened-species-and-communities>. This website will be consulted with due diligence practiced to protect identified species and communities when planning and conducting appropriate bushfire mitigation activities.

### 3.12 Historical Bushfire Occurrence

A report provided by DFES Operational Information System Branch identifies that from the 5-year period starting 1 July 2021 to 30 June 2026, there have been a total of 623 landscape fire ignitions within the City, at an average of 124 per year (see Table 6).

The number of landscape fire ignitions in the period starting 1 July 2016 to 30 June 2021 was 775, at an average of 155 per year.

This upward trend may be attributed to a number of factors, ranging from differences in weather/seasonal conditions, increased community activity in bushland areas and improved reporting.

As seen in Table 6, 51% of all ignitions across the City is suspicious/deliberate behaviour (320), and a further 14% are reignition of previous fires and/or burn off fires (89).

Table 6: City of Rockingham Landscape Ignition Data Summary Years 2021/22-2025/26 (DFES)

| Total Number of Bushfires:                                       | 2021/2022 | 2022/2023 | 2023/2024 | 2024/2025 | 2025/2026 |
|------------------------------------------------------------------|-----------|-----------|-----------|-----------|-----------|
|                                                                  | 93        | 119       | 112       | 167       | 132       |
| <b>Suspicious/<br/>Deliberate</b>                                | 43        | 58        | 64        | 85        | 70        |
| <b>Cigarette</b>                                                 | 14        | 20        | 14        | 13        | 7         |
| <b>Reignition of<br/>previous fire</b>                           | 8         | 3         | 5         | 13        | 17        |
| <b>Burn off fires</b>                                            | 9         | 13        | 5         | 6         | 10        |
| <b>Campfires<br/>/bonfires/<br/>outdoor</b>                      | 5         | 6         | 5         | 13        | 6         |
| <b>Undetermined</b>                                              | 2         | 1         | 3         | 4         | 4         |
| <b>Improper<br/>Fuelling/<br/>Cleaning</b>                       | 2         | 3         | 3         | 5         | 3         |
| <b>Other open<br/>flames or fire</b>                             | 3         | 2         | 1         | 4         | 2         |
| <b>Vehicles</b>                                                  | 2         | 2         | 3         | 1         | 1         |
| <b>Weather<br/>Conditions -<br/>Lightning</b>                    | 0         | 5         | 1         | 2         | 1         |
| <b>Power lines</b>                                               | 3         | 1         | 0         | 3         | 1         |
| <b>Weather<br/>Conditions</b>                                    | 0         | 0         | 2         | 3         | 2         |
| <b>Hot works<br/>(grinding,<br/>cutting, drilling<br/>etc..)</b> | 1         | 1         | 1         | 2         | 1         |
| <b>Electrical<br/>distribution<br/>(excl. power<br/>lines)</b>   | 1         | 1         | 2         | 2         | 0         |
| <b>Equipment -<br/>Mechanical or<br/>electrical fault</b>        | 0         | 1         | 0         | 4         | 0         |
| <b>Children<br/>misadventure</b>                                 | 0         | 0         | 1         | 2         | 2         |
| <b>Human Error</b>                                               | 0         | 0         | 0         | 2         | 3         |
| <b>Unreported</b>                                                | 0         | 1         | 0         | 1         | 1         |

| Total Number of Bushfires:                        | 2021/2022 | 2022/2023 | 2023/2024 | 2024/2025 | 2025/2026 |
|---------------------------------------------------|-----------|-----------|-----------|-----------|-----------|
|                                                   | 93        | 119       | 112       | 167       | 132       |
| <b>Sleeping/<br/>Alcohol/Drugs</b>                | 0         | 0         | 1         | 1         | 0         |
| <b>Fireworks/flare</b>                            | 0         | 0         | 1         | 1         | 0         |
| <b>Equipment -<br/>Operational<br/>deficiency</b> | 0         | 1         | 0         | 0         | 0         |
| <b>Animal</b>                                     | 0         | 0         | 0         | 0         | 1         |
| <b>Total</b>                                      | 93        | 119       | 112       | 167       | 132       |

A significant bushfire occurred in Warnbro in September 2025, caused by arson. The fire was controlled but there was potential for the fire to jump control lines and continue to Lake Cooloongup, which could also impact nearby schools and houses.

### 3.13 Bushfire Risk Controls

Table 7: Current Bushfire Risk Controls in the City of Rockingham

| Control |                                        | Action or Activity Description                                                           | Lead Agency             | Other Stakeholder(s)         | Notes and Comments                                                                                                         |
|---------|----------------------------------------|------------------------------------------------------------------------------------------|-------------------------|------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| 1       | Risk Analysis                          | BRM Plan extreme and very high risks priority for treatment.                             | DFES & Local Government | DFES and landowners/managers | Implementation of risk mitigation treatments.                                                                              |
|         |                                        | Maintain and refine BRMP.                                                                | Local Government        | DFES and landowners/managers | Maintenance of BRM Plan and BRMS. BRMP performance monitoring and reporting progress to local government council and OBRM. |
| 2       | Warnbro Dunes Bushfire Treatment Plans | Issue separate treatment plans to property owners to reduce risk and increase awareness. | Local Government        |                              | Implementation of treatments, ensuring compliance, monitoring risk, reporting on progress.                                 |

| Control | Action or Activity Description | Lead Agency      | Other Stakeholder(s) | Notes and Comments                                                                                                                                                                               |
|---------|--------------------------------|------------------|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3       | <b>Bush Fire Act 1954</b>      | Local Government |                      | Ensuring compliance with Annual Fire Control Notice, Fire Management Plans and other required works (i.e. issuing of infringement notices, work orders, abatement notices and education letters) |
|         |                                |                  |                      | Review the effectiveness of the Annual Fire Control Notice                                                                                                                                       |
|         |                                |                  |                      | Implementation of any changes to increase effectiveness and volume of inspections.                                                                                                               |
|         |                                |                  | DFES                 | Continued liaison with land managers to ensure mitigation treatments are applied where required.                                                                                                 |
|         |                                |                  | DFES                 | Enforcing restrictions where required or deemed necessary.                                                                                                                                       |
|         |                                |                  |                      | Annual Firebreak Notice published.                                                                                                                                                               |
|         |                                |                  |                      | Review of Annual Firebreak Notice.                                                                                                                                                               |
|         |                                |                  |                      | Annual inspection target to be reviewed.                                                                                                                                                         |
|         |                                |                  |                      | Burning on Crown Lands.                                                                                                                                                                          |
|         |                                |                  |                      | Total fire bans, prohibited and restricted burning times.                                                                                                                                        |

| Control | Action or Activity Description                                                                                                                                                                                           | Lead Agency                                                                                                                                          | Other Stakeholder(s)               | Notes and Comments |                                                                                                                                                                                                           |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5       | City Town Planning Scheme No.2 (TPS2)                                                                                                                                                                                    | Mechanism to perform works related to bushfire mitigation treatments.                                                                                | Local Government and Land Managers |                    | In accordance with scheme text, property owners can implement strictly defined types of bushfire mitigation on their property based on zoning.                                                            |
| 6       | Asset Services                                                                                                                                                                                                           | Management of road reserves, public open space and other local government owned lands.                                                               | Local Government                   |                    | May include the reduction of fuels through various annual works programs such as slashing, clearing, burning or chemical application. The installation of firebreaks.                                     |
| 7       | State Planning Policy 3.7: Planning in Bushfire Prone Areas<br><br>Planning and Development (Local Planning Scheme) Regulations 2015<br><br>Australian Standard 3959 – Construction of Buildings in Bushfire-Prone Areas | Implementation and compliance with SPP3.7 and the Bushfire Protection Criteria of the Guidelines for Planning in Bushfire Prone Areas where required | Local Government                   | WAPC               | 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. |

|    | Control                                                | Action or Activity Description                                       | Lead Agency            | Other Stakeholder(s) | Notes and Comments                                                                                                                                      |
|----|--------------------------------------------------------|----------------------------------------------------------------------|------------------------|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8  | <b>Bush Fire Act 1954, Criminal Code 444 &amp; 554</b> | Police infringement and reward schemes to prevent arson              | WAPOL                  |                      | State-wide arson prevention programs developed in conjunction with WA Police and DFES.                                                                  |
| 9  | <b>DFES Activities</b>                                 | 'My Bushfire Plan' campaign and available information packages       | DFES                   | Local Government     | Bushfire season 'My Bushfire Plan' information package.                                                                                                 |
| 10 | <b>Community Education</b>                             | Community workshops and targeted education programs                  | Local Government       | DFES                 | City Community Safety Officers providing information and educating residence.                                                                           |
| 11 | <b>Smart Watch</b>                                     | Mechanism to prevent arson                                           | Local Government       |                      | City's Community Safety Patrol that operates from 12pm to 4am every day and may be utilised to prevent arson.                                           |
| 12 | <b>Bush Fires Amendment Act 2016</b>                   | Mechanism to perform works related to bushfire mitigation treatments | Land owners / managers |                      | Land managers may implement the bush fire risk treatment standards published under section 35 AA (5) of the Act and published by the DFES Commissioner. |

### 3.14 Other Current Local Government Wide Controls

Local Government wide controls are activities that reduce the overall bushfire risk within the City. These types of activities are not linked to specific assets and are applied across all or part of the local government as part of normal business or due to legislative requirements. Some notable controls currently in place in the City are:

- Bush Fires Act 1954 Section 33 notices, including applicable fuel management requirements;
- Firebreak standards and annual enforcement programs;
- Declaration and management of Prohibited Burn Times, Restricted Burn Times and Total Fire Bans for the local government;
- Public education campaigns and the use of DBCA and DFES statewide programs, tailored to suit local needs;
- Statewide arson prevention and awareness programs developed in conjunction with WA Police and DFES;
- State planning framework and local planning schemes, implementation of appropriate land subdivision and building standards in line with DFES, Department of Planning and Building Commission policies and standards (includes Fire Management Plans and BAL Assessments and compliance with these);
- Monitoring performance against the BRM Plan and reporting annually to the local government council and OBRM;
- Warnbro Dunes Treatment Plans for each individual property, monitoring of treatment implementation and reporting;
- The City's Town Planning Scheme No.2 (TPS2) where, in accordance with scheme text, property owners can implement strictly defined types of bushfire mitigation on their property based on zoning;
- The City's Asset Services Directorate team annual works programs (such as slashing, clearing, burning, chemical application and firebreaks);
- The City's Compliance and Emergency Liaison team routine tasks (such as property compliance inspections, enforcing fire restrictions, issuing of permits to burn and work orders and SmartWatch patrols);
- The Department of Fire and Emergency Services (DFES) is responsible for the management of fire prevention on Unallocated Crown Land and Unmanaged Reserves within gazetted town site boundaries under a memorandum of understanding with the Department of Planning, Lands and Heritage (DPLH);
- The Department of Biodiversity, Conservation and Attractions (DBCA) annual mitigation works programs (includes mechanical works and prescribed burns - known works will be captured in the Bushfire Risk Management Plans Treatment Schedule);
- Water Corporation Bushfire Risk Mitigation Program (Water Corporation sites due to be assessed within the City by Water Corporation staff. Risk mitigation works on 'High' to 'Extreme' risk sites will be communicated to City once complete);
- Western Power's (WP) annual vegetation management and asset inspection activities in 'Extreme' and 'High' bushfire zones as identified in their Bushfire Risk Management Plan. WP's plan that transmission and distribution vegetation maintenance in 'Extreme' and 'High' will be completed by November 30 each year. Areas of the City have been identified by Western Power as a mix of 'Low', 'Moderate' and 'High' risk, with no areas identified as an 'Extreme' risk.
- Get Ready program, including Bushfire Ready months. Community Bushfire Ready Groups facilitated by locals, the City and DFES. Distribution of promotional messages, flyers and consultation activities.



## Chapter 4 Asset Identification and Risk Assessment

Assets at risk from bushfire in City of Rockingham 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 City of Rockingham is shown in Table 5.

In 2026, the City of Rockingham completed a review of the Extreme, Very High and High Risk areas within the City of Rockingham local government area. DFES reviewed a sample of these risk areas and concluded more work is required to accurately reflect the risk. In response, the City committed to reviewing all risk classifications by the next review date of August 2028.

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.

Table 8: Local Government Asset Risk Summary

| Asset Category | Risk Rating      |     |        |      |           |         |
|----------------|------------------|-----|--------|------|-----------|---------|
|                |                  | Low | Medium | High | Very High | Extreme |
|                | Human Settlement | 4%  | 4%     | 9%   | 10%       | 49%     |
|                | Economic         | 1%  | 3%     | 4%   | 4%        | 1%      |
|                | Environmental    | 0%  | 2%     | 1%   | 2%        | 1%      |
|                | Cultural         | 1%  | 1%     | 1%   | 1%        | 1%      |
|                | Total            | 6%  | 10%    | 15%  | 17%       | 52%     |



## Chapter 5 Risk Evaluation

### 5.1. Risk Acceptance Criteria

The acceptable level of risk for each asset category is shown in Table 6. A risk that is assessed as exceeding these limits will be considered for treatment.

Table 9: Risk Acceptance Criteria for Bushfire Risk in City of Rockingham

|                       | Asset Category   |          |               |          |
|-----------------------|------------------|----------|---------------|----------|
|                       | Human settlement | Economic | Environmental | Cultural |
| Acceptable Risk Level | Medium           | Medium   | Medium        | Medium   |

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



## Chapter 6 Risk Treatment

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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 City of Rockingham. 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 City has adopted a balanced approach to mitigation treatments that priorities community safety while also considering environmental, social and aesthetic values.

Asset specific treatments are implemented to protect an individual asset or group of assets, identified and assessed in the BRM Plan as being a bushfire risk. There are five asset specific treatment strategies:

- Fuel management - treatment reduces or modifies the bushfire fuel through manual, chemical and planned burning methods;
- Ignition management - treatment aims to reduce potential human and infrastructure sources of ignition in the landscape;
- Preparedness - treatments aim to improve access and water supply arrangements to assist firefighting operations;
- Planning - treatments focus on developing plans to improve the ability of firefighters and the community to respond to bushfire;
- Community Engagement - treatments seek to build relationships, raise awareness and change the behaviour of people exposed to bushfire risk.

## 6.2. Treatment Schedule

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

A treatment schedule for the City of Rockingham covering the next year 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 costs associated with the treatment and obtaining the relevant approvals, permits or licences to undertake an activity. Where agreed, another agency may manage a treatment on behalf of a land manager.





## Chapter 7 Monitoring and Review

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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

City of Rockingham 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.

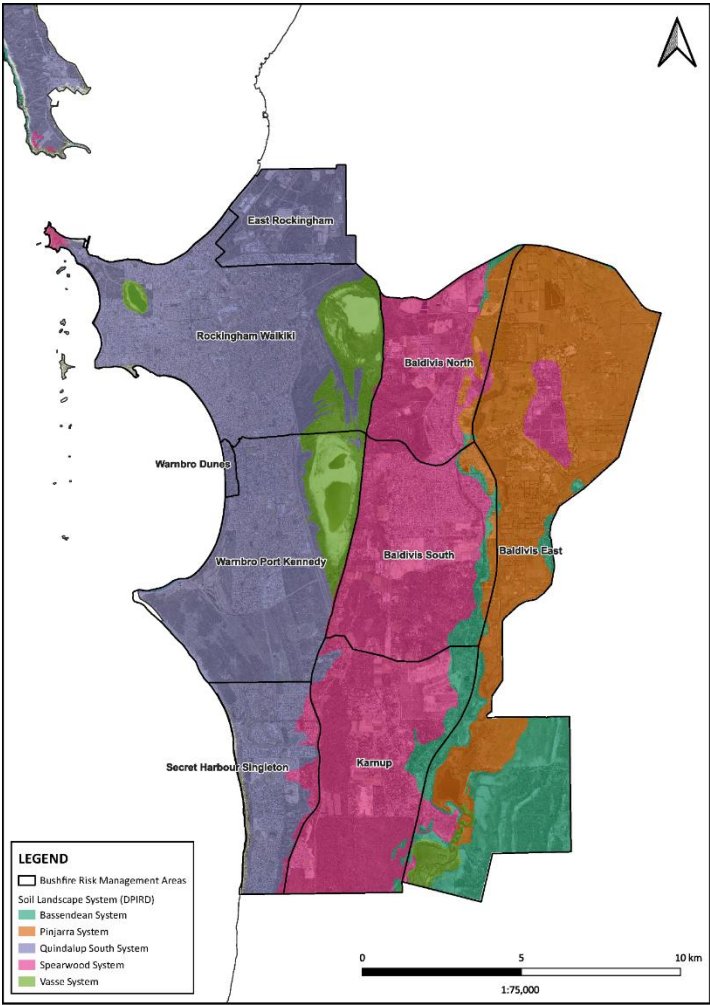
### 7.2. Reporting

The City of Rockingham CEO or their delegate will provide to OBRM the outcomes of the two-year review of the BRM Plan. This is required to maintain OBRM endorsement of the Plan.

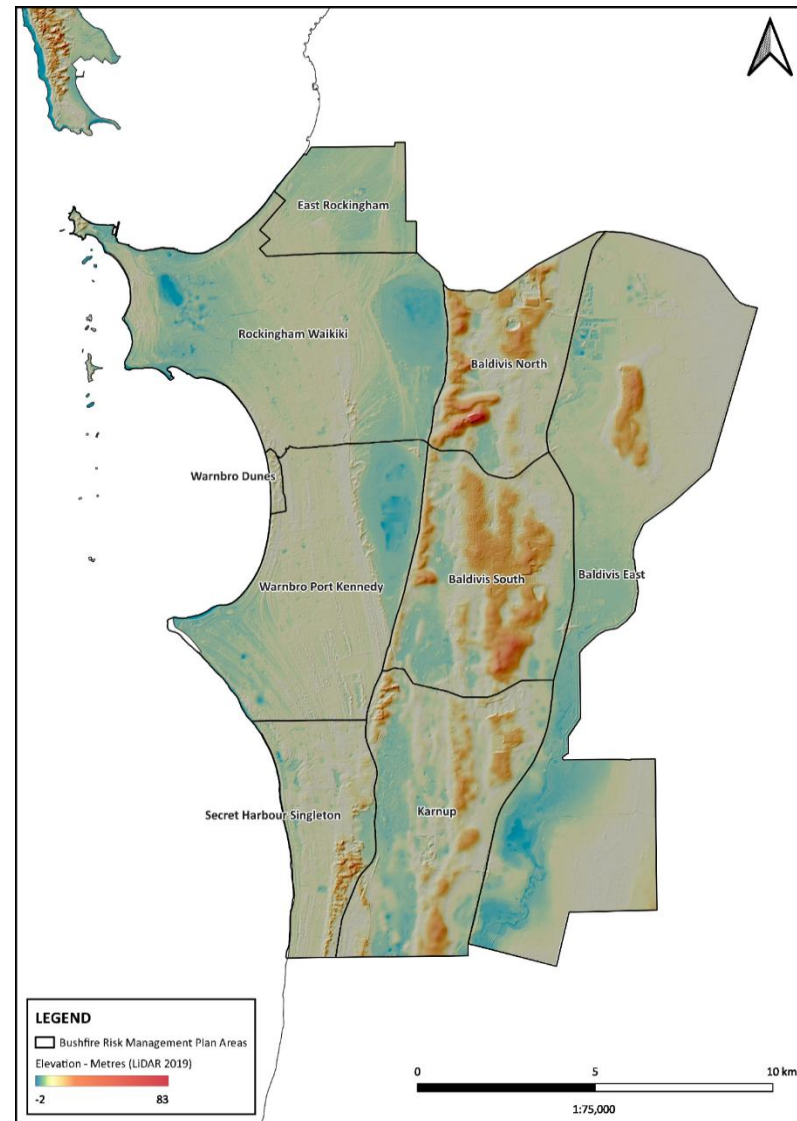
The City of Rockingham will contribute information about their BRM Program to the annual OBRM *Fuel Management Activity Report*.

Appendix 1 – Drawings

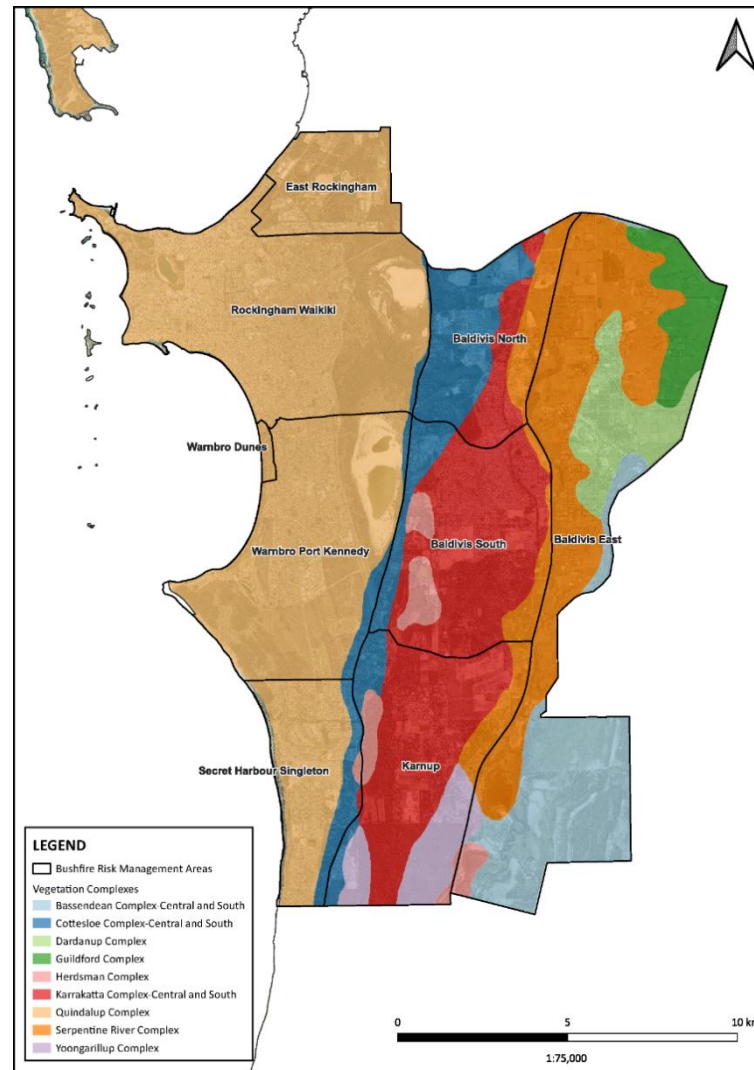
Drawing 1: Soil Landscape Systems



Drawing 2: Elevation



Drawing 3: Vegetation Complexes



## Appendix 2 – Threatened Ecological Communities in the City of Rockingham

| Code                     | Community Name                                                                                                                                                        | Category |         | City Reserve                                                                                                                                                                                    |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                          |                                                                                                                                                                       | WA       | Federal |                                                                                                                                                                                                 |
| <b>Banksia WL SCP</b>    | Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region                                                                                                     | P3       | EN      | Baldivis Tramway, Karnup School Site, Karnup Town Site, Tamworth Hill Swamp, Baldivis Nature Reserve                                                                                            |
| <b>SCP08</b>             | Herb rich shrublands in clay pans (floristic community type 8 as originally described in Gibson et al. (1994))                                                        | VU       | CR      |                                                                                                                                                                                                 |
| <b>SCP19a</b>            | Sedgeland in Holocene dune swales of the southern Swan Coastal Plain (floristic community type 19 as originally described in Gibson et al. (1994))                    | CR       | EN      | Foreshore, Sawley, Trenant Park, Hidden Swamp, Lark Hill, Anstey Q, Bordeaux Ramble, Kindsdale Bend, Lake Richmond                                                                              |
| <b>SCP19b</b>            | Woodlands over sedgeland in Holocene dune swales of the southern Swan Coastal Plain (original description; Gibson et al. (1994))                                      | CR       | EN      | Lark Hill, Lake Richmond                                                                                                                                                                        |
| <b>SCP30a</b>            | Callitris preissii (or Melaleuca lanceolata) forests and woodlands, Swan Coastal Plain (floristic community type 30a as originally described in Gibson et al. (1994)) | VU       |         |                                                                                                                                                                                                 |
| <b>Tuart Woodlands</b>   | Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain                                                                                      | P3       | CR      | Sawley, Tuart Park, Baldivis Tramway, Baldivis Children's Forest, Woodleigh Grove Reserve, Tamworth Hill Swamp, Baldivis Nature Reserve, Rockingham Golf Club, Dixon Road Conservation Precinct |
| <b>Coastal Saltmarsh</b> | Subtropical and Temperate Coastal Saltmarsh                                                                                                                           |          | VU      | Foreshore Reserve                                                                                                                                                                               |