



Fire Hazard Assessment Plan

Community Safety –
Fire and Emergency Management

2023 – 2028

Version control of this document is managed by the Community Safety team and amendments are recorded below.

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| City of Kalamunda Fire Hazard Reduction Notice | Community Safety | 2023/2024 |
| City of Kalamunda Enforcement Policy SM-DSO 1.2 | City of Kalamunda | 2022 |
| City of Kalamunda Work Instruction Inclement Weather | City of Kalamunda | 2019 |
| Kalamunda Advancing 2027 Strategic Community Plan | City of Kalamunda | 2016 |
| https://www.kalamunda.wa.gov.au/our-city/fire | City of Kalamunda | 2021 |
| https://www.dfes.wa.gov.au/Pages/default.aspx | DFES | 2021 |
| https://www.emergency.wa.gov.au/ | Western Australia | 2020 |
| <i>Bush Fires Act 1954</i> | Western Australia | 2019 |
| <i>Bush Fires Regulations 1954</i> | Western Australia | 2019 |
| <i>Bush Fires (Infringements) Regulations 1978</i> | Western Australia | 2018 |
| <i>Fines, Penalties, and Infringement Notices Enforcement Act</i> | Western Australia | 2020 |

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Acronyms & Abbreviations

| | |
|----------|---|
| APZ | Asset Protection Zone |
| BoM | Bureau of Meteorology |
| BRMS | Bushfire Risk Management System |
| CBFCO | Chief Bushfire Control Officer |
| CBPO | Community Bushfire Preparedness Officer |
| CESM | Community Emergency Services Manager |
| CRO | Customer Relations Officer |
| COVID-19 | Corona virus disease 2019 |
| DBCA | Department of Biodiversity and Conservation Attractions |
| DFES | Department of Fire and Emergency Services |
| DFM | Dead Flammable Material |
| FCO | Fire Control Officer |
| FER | Fines Enforcement Registry |
| KBDI | Keech-Byram Drought Index |
| OH&S | Occupational Health and Safety |
| PR | Public Relations |
| UCL | Unclaimed crown land |
| UMR | Unmanaged reserve |

DEFINITIONS

The following definitions are provided by the Australian Disaster Resilience Glossary (2020) in conjunction with other glossary documents nationwide.

Community: The term 'community' is dynamic and can change constantly referring to common sets of shared interests, values, beliefs, and circumstances.

Resilience: The ability of a system, community, or society exposed to hazards to resist, absorb, accommodate, adapt to, transform, and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions through risk management.

Disaster: A serious disruption of the functioning of a community or a society at any scale due to hazardous events interacting with conditions of exposure, vulnerability, and capacity, leading to one or more of the following: human, material, economic and environmental losses, and impacts (AIDR, 2018).

Emergency: An event, actual or imminent, which endangers or threatens to endanger life, property, or the environment, and which requires a significant and coordinated response.

Hazard: A source or situation of potential harm to people, infrastructure, or the environment. The hazard originates as something natural, from human activity, or our increased interaction with natural hazards (e.g., landslides, drought) causing loss of life, injury other health impacts.

EXECUTIVE SUMMARY

Bushfire prevention and preparedness planning is critical to the development of the City of Kalamunda (the City) strategic objectives for community safety and emergency management. This plan is developed through a collective and collaborative approach, incorporating supporting agencies such as the Department of Fire and Emergency Services (DFES).

The plan takes a holistic and proactive approach in influencing the local management of bushfire hazards through compliance and community engagement methods. The plan provides a comprehensive structure to executing the City's bushfire preparedness scope across permits to burn, illegal burning and fire hazard assessments.

71 Homes were destroyed in the 2011 Kelmscott Roleystone Fire. The following special enquiry that came from the review of that fire made several recommendations. The City of Kalamunda saw them as an opportunity to help prepare its residents for any future fire in the Perth Hills area.

The Special Inquiry strongly encouraged community members to consider the report and the recommendations contained within it.

Specifically, residents should:

- Actively engage in community education processes and make use of the information made available by FESA (Now DFES) and local governments.
- Reduce fuel loads on their properties and install appropriate fire breaks and understand that they may face penalties if these requirements are not met.

In February 2021, Residents of the City of Swan and Shire of Mundaring had a significant amount of damage caused by the Wooroloo Bushfire. The fire damaged more than 100 homes and destroyed 86 houses. The estimated insurance loss of the Wooroloo bushfire was \$93 million.

The Wooroloo bushfire impacted across multiple land tenures, which included 80 percent on private property.

Reading from the review into the fire it was noted:

- Community Engagement Focus programs be enhanced highlighting the need for landowners, in high-bushfire prone communities, to implement mitigation strategies to protect their properties and ensure preparedness for extended stay without support after fire impact.
- Notwithstanding the LGs role in fire mitigation, the Review considered that there was a significant lack of responsibility and apathy by many private landowners in bushfire preparation and mitigation, which also contributed to the fire spread.

Despite local governments having responsibility under the Bush Fires Act 1954 (s33) to provide both guidance and a means to enforce actions on landowners and occupiers to undertake bushfire mitigation activities, their seemed a

reluctance to enforce these powers. While it is recognised that local governments provide resources and undertake a level of enforcement, the Review considers that the use of these powers should be more strongly applied following appropriate consultation and negotiation.

The Perth Hills has great appeal due to its natural beauty of the area. However, residents must recognise that living in a bush location comes at a risk – and that they themselves must do all that they can to reduce that risk. Not only for themselves, but their neighbours and the surrounding community. This could be more proactive in seeking bushfire safety advice and spending more time on the preparedness and maintenance of their properties all year round.

The City of Kalamunda, in partnership with DFES are focused on pre-season bushfire education, which emphasises:

- Water supply is not guaranteed during a bushfire.
- Power supply is not guaranteed during a bushfire.
- Saving life will be a priority over saving property so expect to be evacuated.
- Once evacuated, access to affected areas may not be possible for several days.
- Water bombing by aircraft cannot be guaranteed in bushfire.
- SMS warnings are advice only and may not be timely.

The City has implemented a comprehensive program to assess bushfire preparedness on private properties. Our operational program will give reference to:

- The creation and maintenance of an Asset Protection Zone (APZ),
- Fire Break expectations, planning and maintenance.
- Fuel loads management,
- Bushfire Plans to evacuate early or stay and defend.

The program has been developed and implemented by Senior Community Safety staff and is supported by several experienced Community Safety administration staff. The team comprises of (1) full time Senior Fire & Emergency Management Officer and (2) full time Community Bushfire Preparedness Officers (CBPO) who all authorised Fire Control Officers (FCO's) under the *Bush Fires Act 1954*. It is important to note in relation to being a FCO this is limited to inspecting properties for firebreaks, and other fire hazards and investigating illegal burns. They are not firefighters and are not responding to fires. This dynamic and highly experienced team who will work with the community throughout the entire year delivering not only the fire hazard inspection program but also delivers a wide range of emergency management actions to ensure the community is well prepared should a catastrophic emergency event occur.

By investing in full time employees to deliver bushfire preparedness and emergency management procedures including conducting fire hazard inspections will provide consistency and build stronger connections among all stakeholders.

This plan reflects a comprehensive approach to bushfire risk management and strategies that will achieve both compliance and preparedness. It also aims to provide agreed principles for current and beneficial practices, and outlines the strategic context aligned with legislation, policies, and processes.

INTRODUCTION

Communities across Western Australia (WA) have been experiencing increasingly intense hazards such as bushfires, storms, and cyclones. As these hazards become more frequent and the impact more severe, the prevention, preparedness, response, and recovery planning from all relevant stakeholders is essential to mitigate the risks and work toward a resilient community.

Bushfires in Western Australia are a common occurrence and with over 90% of the State being bushfire prone (DFES, 2021) including majority of the City (refer to page 15), the need to develop and prepare plans for this anticipated hazard and its impact is crucial. It is also well known that significant bushfires can have a long-term impact on people and the social fabric of our communities (National Disaster Risk Reduction Framework, 2018) and therefore highlights the focus and enduring commitment for a shared responsibility in planning, preparation, response, and recovery.

The City is aware of the devastating effects that bushfires can have on a neighbourhood, and the Climate Council of Australia (2020) advises that the changes in the climate we are witnessing will affect the frequency and severity of the bushfires we experience. These variations may include:

- Extended fire seasons with hotter conditions which increase the intensity and spread of bushfires, leaving shorter periods for fire hazard mitigation efforts.
- Hotter conditions and longer periods of low rainfall equal drier soil and vegetation, which contributes to higher dead fuel loads, and therefore increasing a fire's intensity, spread, and time to bring under control.
- Extended days of warm and hot weather creating an unstable atmosphere drawing moisture and charging clouds to produce lightning strikes, resulting in fires starting across several locations.

With information from the above, the City has created this plan for its region's bushfire preparedness and compliance program for strategic development and arrangements for 2023 to 2028.

The City has also taken note of the independent Wooroloo Bushfire review (2021), which found that local government can compel landowners to take certain actions under the Bush Fires Act of 1954 (section 33) and that these powers ought to be used more vigorously. The community felt the approach taken in 2022/2023 was an ineffective way to gain a satisfactory bushfire preparedness outcome and as such this plan was reviewed to ensure a strong focus on community education. The plan is devised for a period of (5) years between 2023 to 2028.

PURPOSE

This plan is to determine the understanding of the processes, procedures, policies, plans, and emergency management strategies for bushfire hazards. The preparedness also fits with the City's 10-year strategic community plan, which is shown below.

This plan also supports the actions of the City's integrated Bushfire Risk Management Plan (BRMP). Under section 2.2.8 of the State Hazard Plan – (Fire) all local governments identified as high or extreme risk are required to develop an integrated Bushfire Risk Management Plan which outlines a strategy to treat or reduce bushfire related risk across all land tenures. The Fire Hazard Assessment Plan (FHAP) supports one of the key actions of the (BRMP) which is to ensure compliance with the annual Fire Hazard Reduction Notice (FHRN).

(Table 1)

| PRIORITY 1: Kalamunda Cares and Interacts | | |
|--|---|---|
| Objectives | Strategies | Success Management |
| 1.2 To provide safe and healthy environments for community to enjoy. | 1.2.1 Facilitate a safe community environment. | <ul style="list-style-type: none"> • Increasing community perception of safety in the City. • Increasing compliance with fire protection requirements. • Increasing level of satisfaction with programs, facilities, and activities. |
| PRIORITY 4: Kalamunda leads | | |
| Objectives | Strategies | Success Management |
| 4.1 To provide leadership through transparent governance. | 4.1.1 Provide good governance | <ul style="list-style-type: none"> • Level of compliance with legislation. • Increasing satisfaction with community engagement activities. • Level of external funding acquired. |
| 4.2 To proactively engage and partner for the benefit of community. | 4.2.1 Actively engage with the community in innovative ways. | |
| | 4.2.2 Increase advocacy activities and develop partnerships to support growth and reputation. | |

Scope

The plan will refer to compliance and preparedness, reflective of the impact a bushfire may have on the community. It will also refer to what risks can be reduced through local government, the landowner and/or occupier, community groups and other relevant stakeholders.

Documenting the plan will provide clarity and consistency on agreed definitions, approaches, and evaluation. Other plans listed may be the focus of other requirements.

This plan identifies anticipated risks that may impact the plan and will endeavour to adapt its execution where possible to ensure the safety of the landowner and City officers. The plan will remain credible and provide the ability to pivot promptly and reduce the impact to the plan objectives and officer operational duties.

Objectives

The emergency management framework that incorporates the prevention, preparedness, response, and recovery (PPRR) model places a significant emphasis on developing resilient and prepared communities in the context of bushfires. As a result, the objectives in this plan are aligned with both the City's strategic plan (see page 8) and DFES's strategic control priorities in their 2016-28 strategic plan:

City of Kalamunda Objectives

To review and implement the City's Fire Hazard Reduction Notice (FHRN) under section 33 of the Bush Fires Act 1954 by July each year to distribute with the City's rates and have gazetted in the local newspaper.

To implement and conduct training for the CBPO's including to revise knowledge leading into each bushfire season.

All CBPO's employed by the City will conduct quality, fair and equitable property fire hazard assessments using the strategy applied in this plan and abiding by established processes, procedures, and directions.

Ensure processes and procedures across bushfire preparedness are captured in line with City policy and followed throughout the bushfire season, also ensuring a review is conducted to identify gaps and to make recommendations at the seasons conclusion.

Demonstrate a fair and equitable approach towards enforcement in line with the *Bush Fires Act 1954* and *Bush Fires Regulations 1954* throughout the local bushfire season.

DFES's Strategic Control Priorities 2016-2028

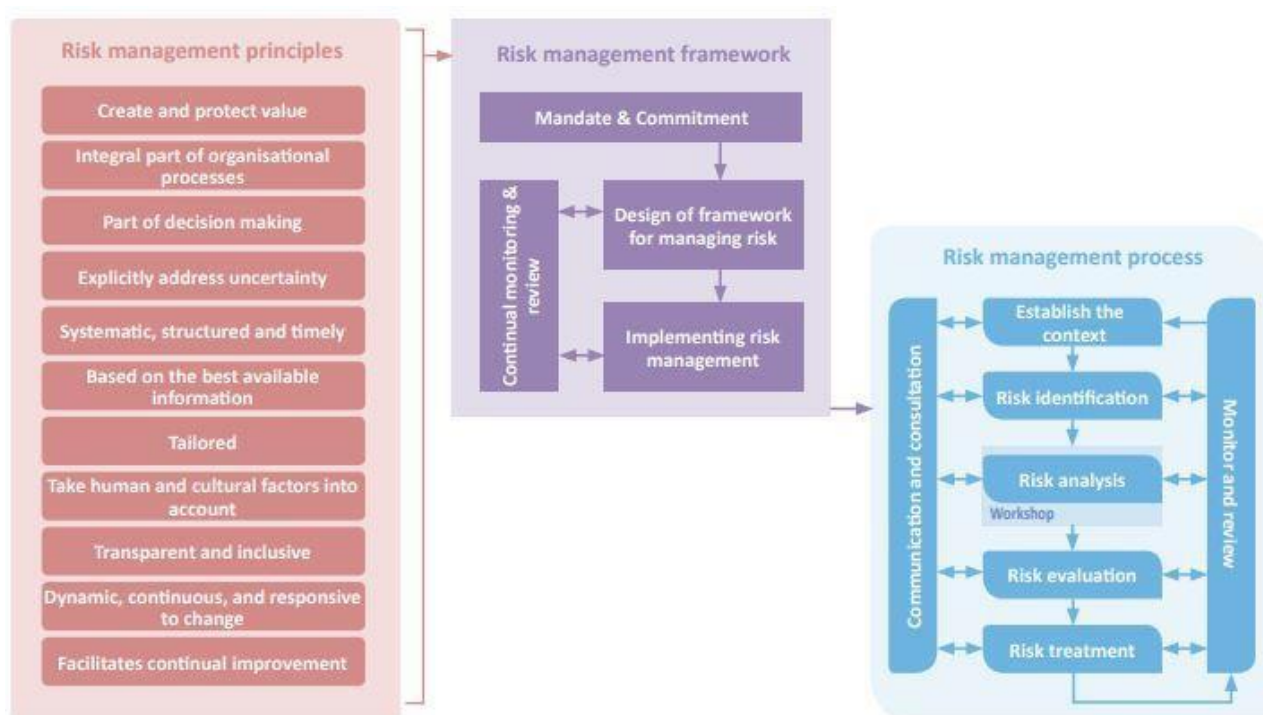
- Protection and preservation of life
- Community warnings and information
- Protection of critical infrastructure and community assets
- Protection of residential property
- Protection of assets supporting individual livelihood and community financial sustainability
- Protection of environmental and heritage values

Context

The National Emergency Risk Assessment Guidelines (NERAG) AS/NZ ISO 31000:2019, which provide an overview of the emergency risk management framework and principles, set the context for this plan.

Risk management is a systematic process that improves communities' and the environment's wellbeing, according to the State Emergency Management Committee (SEMC, 2017). This plan is one of the measures taken by the City to reduce risk after risk management workshops were used to rate the likelihood and effects of a significant bushfire event.

Fig 1 - Emergency Risk Management principles, framework, and processes, as described by AS/NZ ISO 31000:2019



Risk Assessments

The City of Kalamunda identifies a need to provide continuing education and awareness of bushfire safety, property preparedness to all residents, this can be achieved through collaboration with the City's Public Relations and Customer Services team to continually develop the Bushfire Engagement and Communication Plan. It is also recommended that continuous skill refreshers and training modules be developed and made available to the City's fire officers to ensure currency and competency of skills and knowledge surrounding bushfire preparedness.

Limitations

Some, but not all, of the factors that contribute to bushfire prevention and community preparedness are aligned with the City's delivery of bushfire engagement, education,

and compliance strategies. Limitations reflect what aspects of bushfire risk reduction fall under the purview of the legislative branch and the sphere of influence of the City.

The levels of risk within the community, which can differ depending on context are another set of restrictions to think about. For instance, personal circumstances can affect one's ability to begin preparing, and reluctance to do so may be caused by a lack of knowledge about what to do, the degree of risk, and the effects that reducing fire hazards can have.

Actioning of fire hazard assessments have specific restrictions related to the size of the area needed for the assessment, staffing (resources), funding, and the City may not have the authority or resources to have an impact on these factors.

Where possible, the City can exert some control over these restrictions to produce better results that could improve bushfire preparedness and fire hazard reduction through a variety of means. These are:

- Issuing a Fire Hazard Reduction Notice annually.
- Engage with the community through community engagement and communication plans.
- Advocate for appropriate processes and procedures that benefit the City and community.
- Undertake an enforcement approach which is centred on education and community engagement.
- A graduated and proportionate approach will be applied to compliance action commensurate to the risk.

Whilst limitations exist, employing these approaches to maximise the City's influence and assist in delivering improved outcomes.

Anticipated Hazards

Alongside the local context of disaster risk and diversity, there is a range of intersecting influences at the community level that have an impact on bushfire preparedness and compliance.

Bushfire

The effects of bushfires on the neighbourhood during restricted and prohibited burning times are considered. It is anticipated resources will be diverted to response, emergency management, and recovery efforts as needed when a bushfire emergency arises.

Fire Bans and Burning Restrictions

Imposed bans that prohibit equipment use and movement of vehicles during bushfire compliance periods may put a halt on required works to be completed, prolonging the execution time limit. Weather conditions that further restrict burning times will reduce the opportunity to manage fuel loads across the City.

Heatwave

If a declared heatwave is issued this could impact the community's health and ability to complete the required work. These may also coincide with fire bans. It also reduces the officer's ability to conduct assessments as per the City's work instruction on inclement weather.

MEASURE OF SUCCESS

To support each local bushfire season, the City measures its outcomes in engagement and bushfire preparedness to develop improved plans and strategies.

Reporting

To measure the effectiveness of this plan, a summary is drafted at the conclusion of the local bushfire season. The summary will capture the outcomes of the season identifying successes and identify areas requiring further attention and education. This will continue to contribute to the long-term growth and improvement toward reducing bushfire hazards in line with legislation and the City's strategic objectives.

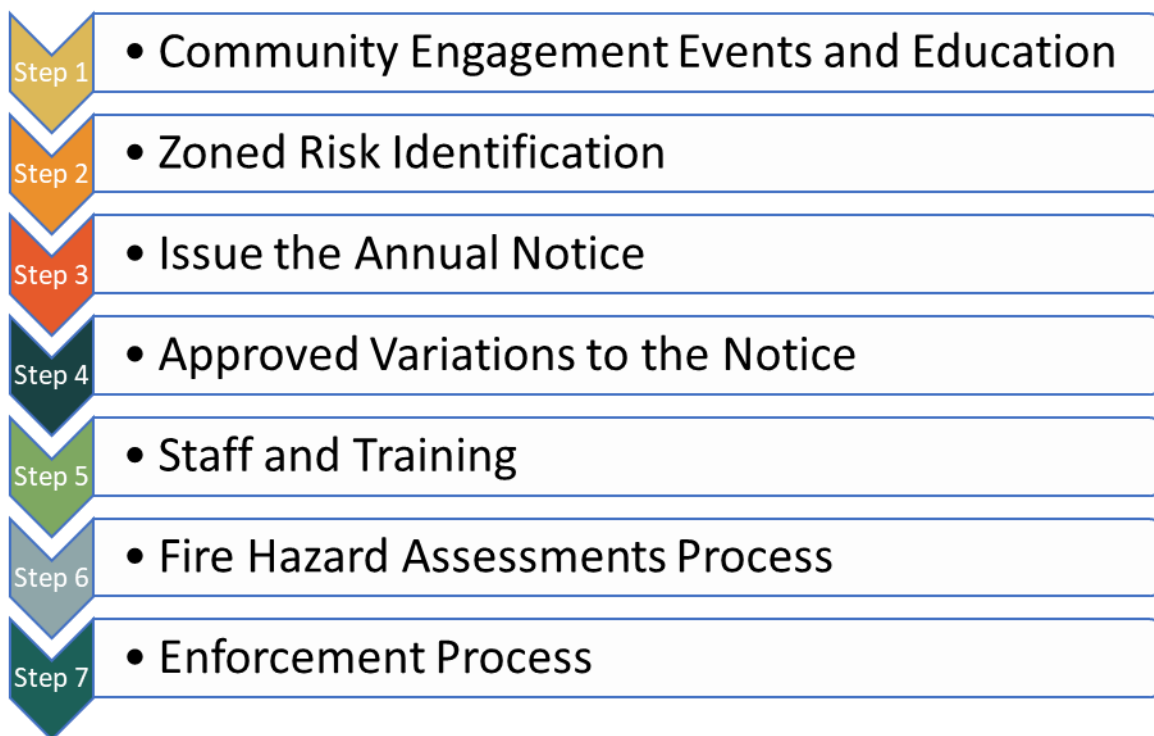
Plan Execution

The execution of this plan takes the approach based on several factors:

| | |
|--------------|--|
| CONTEXT: | Risk assessment, landscape, community safety, area profile. |
| LEGISLATION: | Informs the approach that can be taken. |
| SCOPE: | Within legislation and authorisations. Workforce available to achieve fire hazard assessments. |
| RESOURCES: | Current and future budget availability. |

Drawing on 2022/2023 community feedback, lessons learned, and officers' recommendations, this plan will be structured as a five-year plan (2023 to 2028). The same approach will be conducted each year and is broken down as follows:

Fig 3.



The execution will follow the City's processes and procedures that are in place. These processes and plans are reviewed towards the end of the plan's life period or at any other time the business unit considers it appropriate. The City will have in place contingencies for anticipated hazards which will provide the ability to pivot for any emerging impacts, ensuring CBPO's duties are continued in line with any restrictions or directions imposed by the City or State.

Step 1 – Community Engagement Events and Education

The City of Kalamunda Fire & Emergency Management team will undertake an all-year-round program of bush fire/ storm education and work with residents to make properties prepared for any emergencies.

Hazards are managed by a combination of methods including firebreak maintenance and construction, invasive weed management, scheduled hazard reduction burns and gutter maintenance. Given the bush fire threat in our community, it is important that all residents know what the requirements are for their property.

The City of Kalamunda has always had a service available to help identify potential fire and storm hazards on private property and Officers will work to develop plans aimed at managing those risks. Officers are available all year round for property preparation advice providing mitigation advice in preparation for the high fire risk period being November – March of each year.

Officers can provide advice on:

- How to identify bushfire/ storm risks that exist on the property and how to manage those risks
- Fuel load measurement and management
- Preparing your property for bush fires including shrub pruning and vegetation management advice
- Winter hazard reduction burning advice.
- How to join a Bushfire Ready Group
- Assist private landowners by offering advice on how to prepare their property against the City's annual Fire Hazard Reduction Notice to ensure compliance is met.

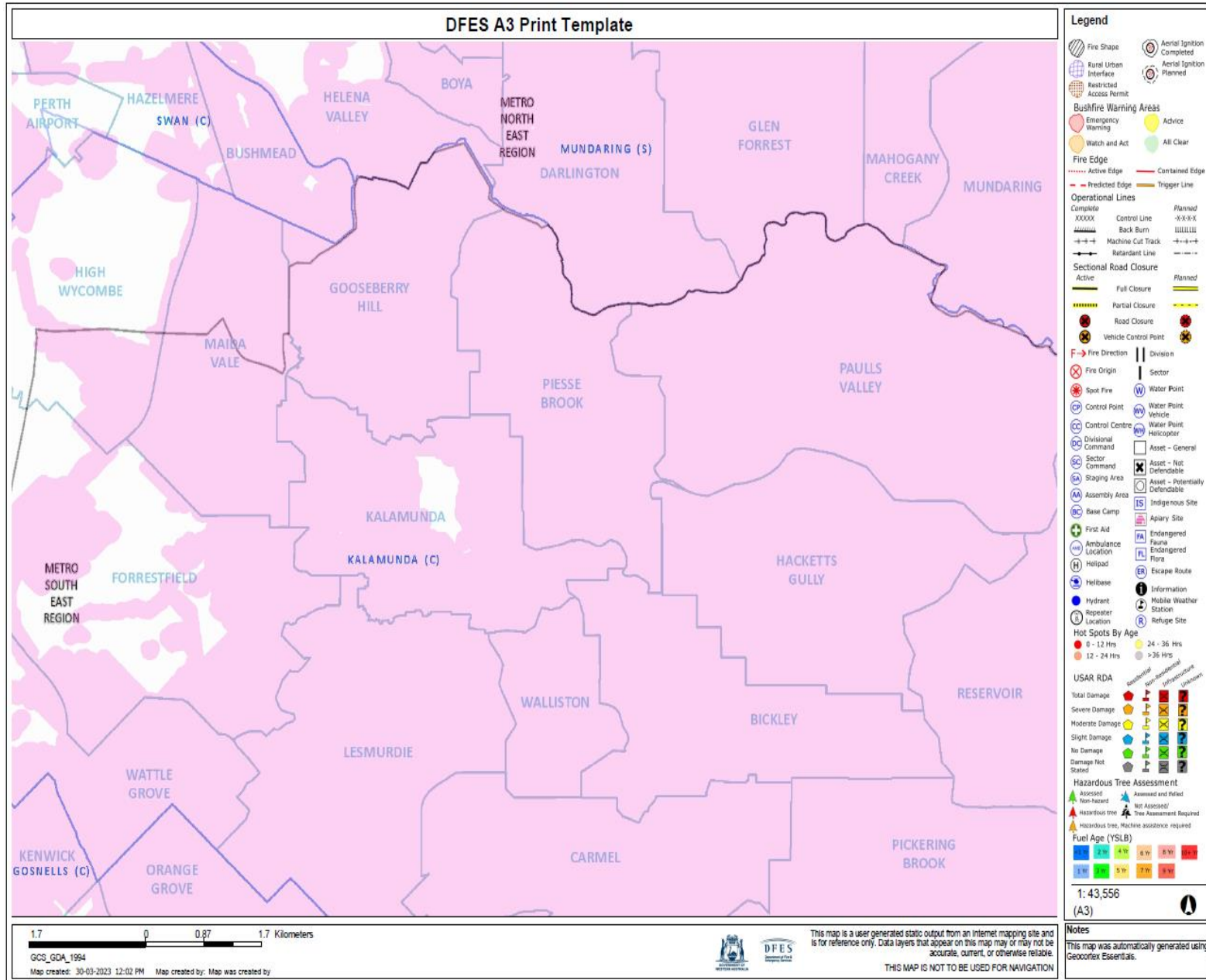
Officers are also available to attending community events throughout the City for residents to seek advice for the preparedness of their properties.

Step 2 – Zoned Risk Identification

It is understood that not every piece of land or piece of property can be evaluated for fire hazards due to the restrictions listed on page 18. The Community Safety team employ several strategies to identify risk and create an efficient plan for conducting fire hazard assessments before they start inspections across the City.

The Fire and Emergency Services (FES) Commissioner has identified areas that have been designated as bushfire-prone areas and have been given the colour pink on the map below (DFES, 2021). Figure 4 illustrates how much of the City of Kalamunda is a bushfire-prone region.

Fig 2. Map of bushfire prone areas in pink.



With this as a foundation, efforts to ensure a fair and equitable approach to fire hazard assessment will utilise the following factors.

- Bushfire Risk Management System (BRMS)
- Property location
- Land management (including environmental factors)
- Landscape
- Community Profile / Historical data

Bushfire Risk Management System (BRMS)

The Bushfire risk changes from year to year and is continuously recorded. The City and DFES use BRMS to map the risk of assets, which helps them produce a better plan for efforts to reduce fire hazards, including property assessments. The system is an electronic database that aids the City in taking a tenure-blind approach by capturing precise risk ratings for all assets located within our borders. The data gathered considers slope analysis, canopy cover, separation distance, fuel load, fuel type, fuel age, and fuel density.

All this information is entered, and a risk rating between 1A and 5C is generated. Assets can be grouped if they are exposed to the same risk and using the tenure blind approach ensures that the data mapping is done to the same standard regardless of who owns the land.

This system is used as a guide by fire hazard assessment strategies to help identify buildings that are at extremely elevated risk as a place to start the assessment/

Fig 3. Asset Subcategory

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

Fig 4. BRMS Risk Rating Table


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

Fig 5. BRMS Map -All Risk (Kal)

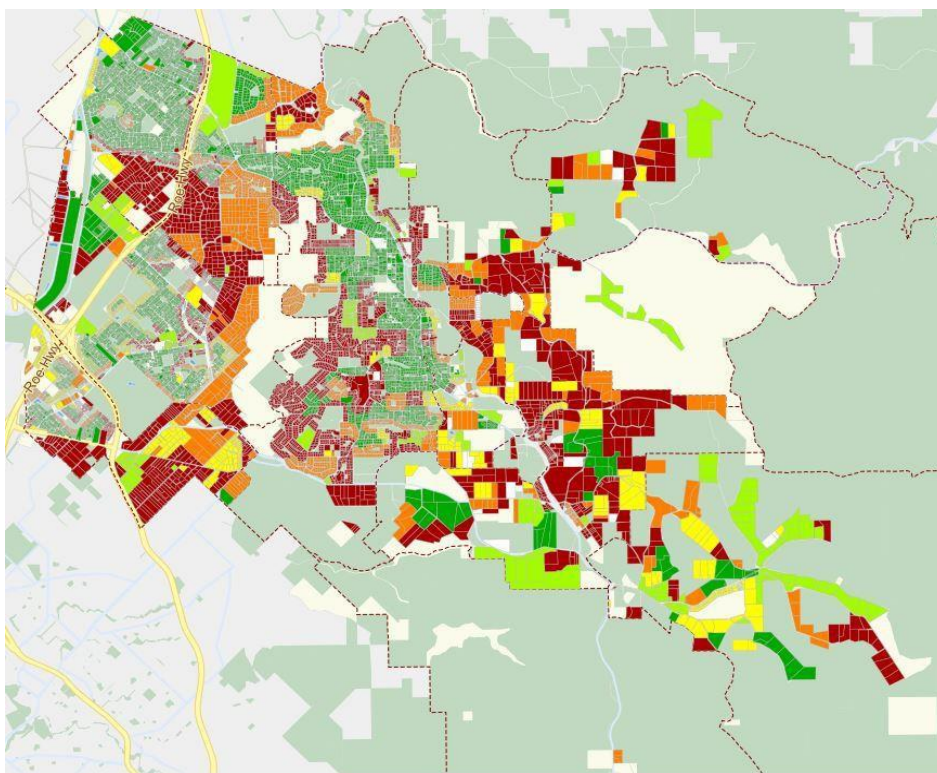
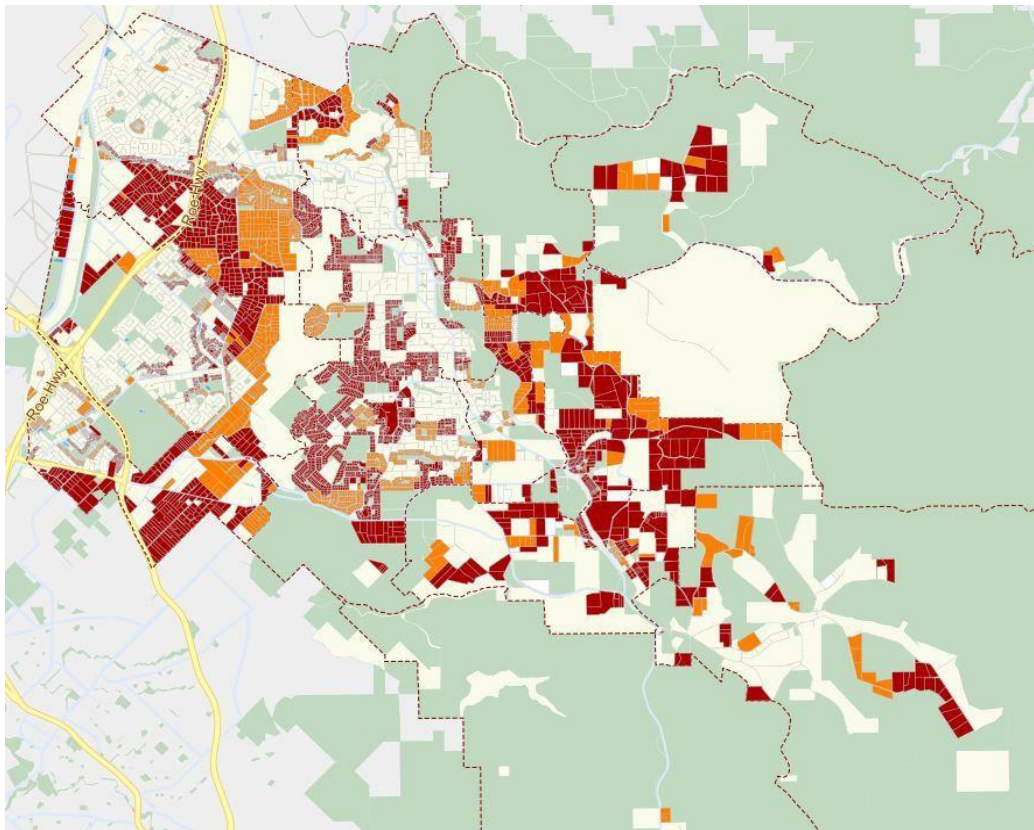


Fig 6. BRMS Map – Risk Very High and Above (Kal)



Property Location

All properties and road access in the City of Kalamunda is considered a risk. The Community Safety team considers the added risk to some properties across the City where exiting may be limited should a bushfire overrun roads, cause road closures or road damages, potentially isolating those being impacted by fire. It is therefore critical that properties in these positions are prepared early (prior to summer) in case evacuation is not possible.

NOTE: This section suggests areas that are of extreme risk with limited access on gazetted roads and by no means is definitive. Bushfires can be unpredictable and may impact several areas, roads, and people at once.

Land Management

Awareness of mitigation efforts occurring throughout the year is considered along with the impact it may have on the surrounding private properties and fuel loads. Mitigation can take the form of prescribed burns, mechanical works (mulching), installing firebreaks, slashing, pruning, or the reduction of any other materials deemed a fire hazard. These efforts contribute to the surrounding property risk level as it aims to reduce the fuel loading and reduce the increased potential for a fast-moving fire.

Local land

Mitigation of City reserves, verges and any other City owned land are conducted by combined efforts of the City's Parks and Environment team and the Fire Mitigation (Protection) team based at the City's Operations Centre in Walliston. The team utilise their own plans and strategies to manage these risks and are no way tied to private property preparedness.

State land

State Forest, National Park, UCL, UMR and any other state-owned land is the responsibility of such managing departments. Some may include but are not limited to DFES, DBCA (Department of Biodiversity Conservation and Attractions), Water Corporation, Department of Planning & Land Heritage, Telecommunication land parcels, WA Planning Commission and Department of Housing.

NOTE: Parcels of Crown land are not subject to the same laws as privately owned or privately acquired blocks.

Environmental Considerations

The City is home to a variety of flora, fauna and tree species that make up the local landscape. It is acknowledged that some of these flora, fauna and tree species are protected under certain legislation and require additional permits and approvals to mitigate and manage. As such, the City is endeavouring to provide education and resources to best inform residents of their options when it comes to protecting lives and assets and ensuring the environment is managed. Landowners of these properties would be expected to know how to treat the fuel loading in a way that they still comply to the Notice requirements.

Community Profile / Historic data

The Community Safety team considers community profiling to improve understanding of the community risk and what influence CBPO's may have. This may include vulnerable groups (aged care, disabilities), culturally and linguistically diverse groups, schools, places of worship, businesses, and residents (independent and/or families). Data is reviewed from the Australian Bureau of Statistics and used to gauge an overview of the community, along with outcomes from the community engagement and communication plan summary report.

Area history and local knowledge will inform learnings for future fire hazard assessments and/or FCOs in the field. It will also include any bushfire incidents that have occurred which may have caused threat or impact to residents of that area. These factors will be a focus in the off season (June – October) to assist in early preparation and awareness efforts. These efforts are also captured in the community engagement

and communication planning. Property history of consistent non-compliance will factor into the actions of the FCO however is not the determining factor for any enforcement action.

Heritage Considerations

The Aboriginal Heritage Act 1972 (AHA) (WA) was enacted to ensure that Aboriginal heritage to which the AHA applies is appropriately protected and preserved.

Authorisation of the Registrar of Aboriginal Sites (Registrar) is required before altering or excavating any land under section 17 of the AHA. For further information, please refer to the Department of Planning, Lands and Heritage or email info@dplh.wa.gov.au

Biosecurity Consideration

City vehicles will be used safely and in accordance with all road rules and laws. These vehicles will not enter any area marked as prohibited or sensitive without appropriate actions (e.g., biosecurity, dieback, contaminated sites). Any site entered with contamination risk will ensure the vehicle is fully washed down prior to, and after entering other land blocks.

Step 3 – Fire Hazard Reduction Notice (Jul– 31 Mar)

Bush Fires Act 1954

Part III – Prevention of bush fires

Division 6 – General restrictions, prohibitions, and offences

s. 33. Local government may require occupier of land to plough or clear a firebreak.

Outline

Under Section 33 of the *Bush Fires Act 1954*, the City has a responsibility to give notice in writing to owners and/or occupiers of land within the local government area to prepare their properties against the risk of bushfire.

Execution

The Community Safety team in collaboration with the Chief Bushfire Control Officer (CBFCO) produces and reviews a Fire Hazard Reduction Notice (the Notice) annually. The need for an annual review ensures that bushfire preparedness remains credible and in line with the changing climate.

The notice is gazetted as required under the *Bush Fires Act 1954* and delivered alongside the City's Rates each year in July. The notice identifies the request for all owners and/or occupiers of land to install or upgrade firebreaks and to carry out any works identified in the Notice by a duly authorised FCO.

The Notice is incorporated into the community engagement and communication plan for bushfire preparedness where a range of media is used to broadcast the requirements outlined. Further details are available in the Community Engagement & Communication Plan.

Step 4 – Variation Application

Outline

A variation is a request to vary one or more requirements outlined in the current notice if it is considered impractical to carry out. The application must be submitted prior to 1 October each year.

A variation is not considered an exemption to the notice. Applicants must outline alternative fire prevention methods to be carried out in lieu of what is required to be varied from the notice. The notice may change annually and therefore Landowners or occupiers will need to review their variation to ensure they still comply to the annual notice. If approved, a variation may remain in place for life unless;

- a) The property is sold or
- b) Transferred to a new owner or
- c) Notable change occurs on that land that would make the variation invalid or
- d) If the city determines a variation is no longer required

NOTE: the City reserves the right to revoke or cancel a variation approval at any time.

New landowners - who purchase property that may have had a variation previously should contact the City to resubmit an application for a new variation.

NOTE: An administration fee of \$150.00 is enforced for any applications received after 1 October each year.

Requests & Payments

All requests for a variation will be directed to the City through the following options:

- Form available on the website Variations | City of Kalamunda
- City email address enquiries@kalamunda.wa.gov.au
- In person at front counter administration building.

Variation applications received after 1 October will be reviewed first by the City's Community Safety Customer Relations Officer (CRO) for confirmation of payment, then forwarded to the Senior Fire & Emergency Management Officer or their delegate to be processed. Any application not paid for or considered incomplete will be returned to the applicant and notified to resolve the issue and resubmit the application.

The Coordinator Community Safety will undertake final approval.

Payment for variations after 1 October can be made utilising the payment section on the form or in person at the City of Kalamunda administration centre.

Grazing Variation

Grazing variations are approved annually and must be submitted to Council by 1 October of each year.

A grazing variation is approval to maintain fodder above 50mm up to 1 December for the purpose of feeding livestock. After the 1 December, the land must be reduced to a maximum height of no greater than 50mm. Should grasses not be reduced by 1 December you are required to slash or mow the area and maintain to a height of no more than 50 mm.

Low Threat Minimal Fuel Vegetation Variation

Low threat vegetation, including grassland managed in a minimal fuel condition, maintained lawns, golf courses, maintained public reserves and parklands, vineyards, orchards, cultivated gardens, commercial nurseries, nature strips and windbreaks. Note Minimal conditions means there is insufficient fuel available to significantly increase severity of the bushfire attack (recognisable as short- cropped grass for example, to a nominal height of 100mm)" AS 3959 clause 2.2.3.2(f)

Non-vegetated areas, including waterways, roads footpaths, buildings, and rocky outcrops" AS 3959 clause 2.2.3.2 (e).

Variation Approvals

Approved variations and all associated documentation will be retained by the City. Applicants will be notified of the outcome of their application in writing.

Variation Rejection

The Coordinator of Community Safety or their delegate have the authority to reject an application for variation. This may be due to the decision that works are practical to conduct on that property under the current Notice. An application will also be rejected if payment has not been made after 1 October without proof of receipt.

NOTE: If applications received after 1 October are rejected on reasonable grounds by the Coordinator of Community Safety or their delegate, the \$150 is non-refundable. Any requests made by an applicant to remove a fee are required to apply in writing to the City of Kalamunda Chief Executive Officer (CEO).

Step 5 – Staff & Training

Bush Fires Act 1954

Part IV – Control and extinguishment of bush fires Division 1 – Local governments

s. 38. Local government may appoint bush fire control officer.

Outline

The City employs full-time staff with the appropriate background and experience relevant to the role. All officers appointed and gazetted as Fire Control Officers under the *Bush Fires Act 1954* for the purpose of carrying out fire hazard assessments from 1 November to 31 March.

Execution

Under the *Bush Fires Act 1954* and *Bush Fires Regulations 1954*, Fire Control Officers (FCOs) are required to be accredited to perform the duties of a Fire Control Officer.

Training for all Community Safety staff is ongoing to ensure their knowledge base is current and up to date with changing legislation and requirements.

Operational Equipment

Vehicles

All City vehicles provided for the purpose of conducting fire compliance and emergency management activities are fit for purpose and appropriately marked with the City logo.

Equipment & Clothing

The City will provide the appropriate personal protective equipment (PPE) and personal protective clothing (PPC) to all its officers to ensure the City meets its occupational health and safety requirements and to ensure all officers are visible in public.

Safety and Welfare

All authorised FCOs conducting fire hazard assessments will adhere to the following principles and have been provided training that captures the following:

Property Awareness

FCOs will remain situationally aware when entering any parcel of land and will continually demonstrate respect and integrity towards all properties and their owners and/or occupiers (e.g., gates, animals, privacy).

Fires and other emergency incidents

Any emergencies the FCO identifies will immediately be reported to 000 and the City administration office. FCOs are non-operational and will not attempt any firefighting operations beyond their capacity and equipment.

NOTE: All FCOs will remain aware to work only within their scope and abilities and will not attempt any activity (e.g., first aid) if not trained or qualified to do so.

Vehicles use

Vehicles will be used safely and in accordance with all road rules and laws.

Animal safety and welfare

FCOs will remain situationally aware when moving around properties that contain animals and will refrain from contact where possible to ensure safety and reduce stress to the animal/s. If a concern is raised for officer or animal safety, a Ranger will provide support.

Officer and resident safety

FCOs will ensure that the safety of themselves and others is always maintained prior to and during all property assessments. Officers will not enter a property if it is not safe to do so without appropriate assistance and notification. Properties, where individuals under the age of 18 are home without an adult present, will be considered inaccessible and communications with the owner will be pursued.

Residents to be notified.

Inspections will be undertaken in certain zones. Residents will be notified when CBPO's are entering into these zones including but not limited to notice on our electronic variable message boards.

This advice will be provided in advance prior to commencement of inspections.

Step 6 – Fire Hazard Assessments (1 Nov – 31 Mar)

Bush Fires Act 1954

Part III – Prevention of bush fires

Division 6 – General restrictions, prohibitions, and offences

s. 33(1)(a) – to plough, cultivate, scarify, burn, or otherwise clear upon the land firebreaks in such manner, at such places, of such dimensions, and to such number, and whether in parallel or otherwise, as the local government may and is hereby empowered to determine and as are specified in the notice, and thereafter to maintain the firebreaks clear of inflammable matter;

s. 33(1)(b) to act as and when specified in the notice with respect to anything which is upon the land, and which in the opinion of the local government or its duly authorised officer, is or is likely to be conducive to the outbreak of a bush fire or the spread or extension of a bush fire.

Outline

Assessments will occur in a staged approach starting with routine inspection followed by a secondary follow-up inspection. Routine assessments will be the initial assessment allowing 21-days to carry out the works specified in a work order. Follow-ups will be conducted after the 21-day period. If the property is deemed non-compliant on follow-up, further compliance action may be taken.

Landowners / occupiers who have made no attempt to conduct mitigation works to comply with a workorder may be fined at the secondary inspection as a result.

Landowners / occupiers who have clearly made an attempted to do the works required and have made considerable progress to meet the requirement of a workorder however have not completed works to a satisfactory standard, may receive further workorders and time to complete outstanding mitigation actions.

Execution

Property assessments will be conducted by full time FCOs until the conclusion of the season. Rangers (who are also authorised FCOs) will provide support by attending to fire hazard complaints, zonings or assist with initial inspections should it be required.

Fire hazard assessments are broken down into two categories and assessed against the following as per the Notice.

All land with a total area of 5000m² or more

- Install and/or upgrade fire breaks
- Reduce Dead Flammable Material (DFM)
- Slashing dead grasses, dead shrubs, dead plants
- Prepare Asset Protection Zones (APZ) –including gutters

All land with a total area of less than 5000m²

- Reduce Dead Flammable Material (DFM)
- Slashing dead grasses, dead shrubs, dead plants to a height no greater than 50mm
- Prepare Asset Protection Zones (APZ) – Including gutters

Area allocation

Prior to the commencement of assessments, FCOs will be allocated a zone/area to which they will focus their attention. Rangers will attend to complaint in any zone depending on resourcing at the time.

Notification will go to community members advising which zone the team are working in.

Routine Fire Hazard Assessments

Bush Fires Act 1954

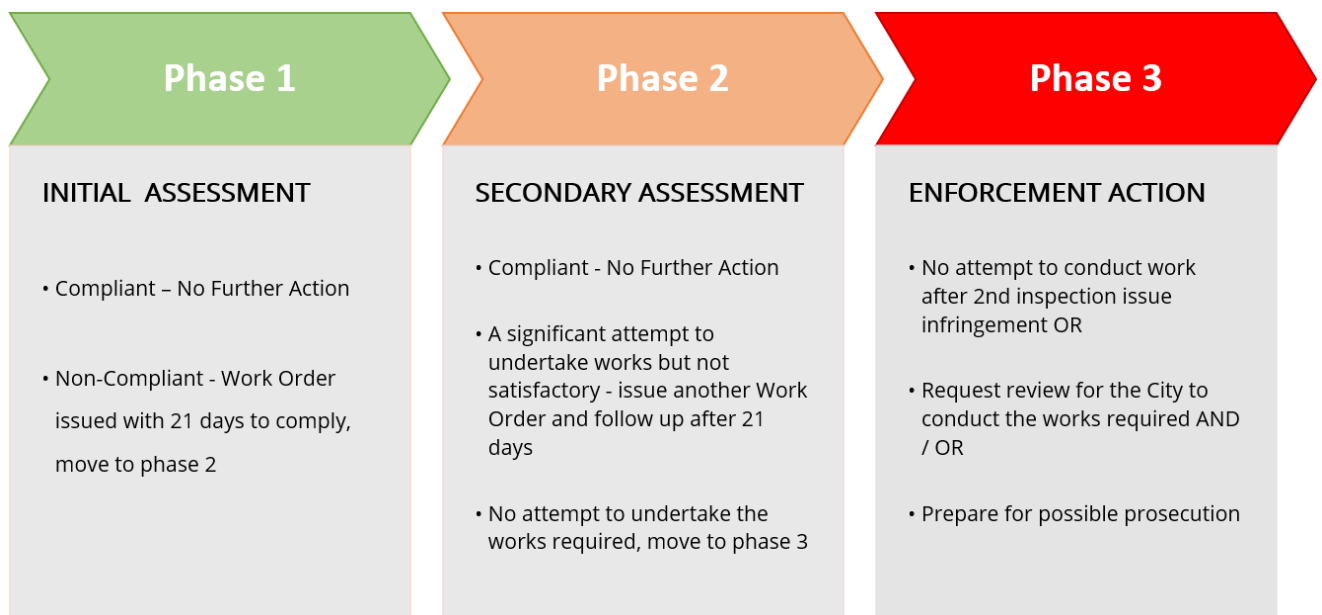
Part IV – Control and extinguishment of bush fires Division 1 – Local governments

s. 39. Special powers of bush fire control officers

Bush Fires Act 1954

Part V – Miscellaneous

s. 57. Obstructing officers



All property assessments will commence as routines where the FCO will be assigned a workload determined by the Senior Fire and Emergency Management Officer. The assignment will be reflective of the initial risk identification. The assessments will capture a Risk Based approach starting with Extreme risks taking priority, then moving to lesser risk properties.

Note: properties with previous noncompliant history will also be assessed as a priority.

*Property owner and/or occupier obstructs, resists, hinders or in any way opposes the FCO in conducting their duties authorised under the **Bush Fires Act 1954** (the Act) is committing an offence under s.57 of the Act.*

*NOTE: Permission to access properties for a fire hazard assessment is not required by the authorised officer (powers under section 14 of the **Bush Fires Act 1954**) however, all City officers will demonstrate respect and awareness when moving around properties and will capture all movements on allocated body cameras. Appointment requests will*

only be accepted after notification of an inaccessible property or extenuating circumstances approved by management.

Properties deemed non-compliant by the officer will be marked using a fire hazard assessment application. This application will capture all requirements under the notice that have or have not been actioned by the property owner and/or occupier. Photos will also be taken and recorded as evidence of non-compliance.

FCOs will have the opportunity to act on properties deemed non-compliant by issuing a work order and allowing 21 days to complete the works.

NOTE: FCOs are guided by the City's Enforcement policy.

Non-compliant Outcomes after an initial inspection will receive a (Work order)

A work order will commit the owner and/or occupier to a 21-day time limit to have the requirements completed. All work orders issued are delivered via post.

NOTE: The City recognises the delay with Australia Post and is therefore inclusive of the 21-day time limit in work orders. This is an increase of 7 days from previous years due to the increasing delay in mail being delivered by Australia Post, especially as it gets closer to Christmas. Returned mail will be recorded as unclaimed and if contact details are available the City will endeavour to contact the owner.

Work order extension requests

Extension approvals will be based on the following evidence:

Skip bins

Owners and/or occupiers that obtain skip bins must supply proof of booking date from the company providing the skip bins to the FCO. From the delivery date the owner and/or occupier will be provided a further 48 hours to comply with the work order.

Contractors

Owners and/or occupiers that engage contractors to complete works against the work order must provide the FCO with the start and completion date that has been booked, and/or a paid invoice along with the completion date. Required work must be completed as close as possible to the 21-day time limit outlined on the work order but cannot exceed 21 days.

Other extenuating circumstances

Owners and/or occupiers that are experiencing extenuating circumstances (e.g., medical/death in immediate family etc) and believe they cannot meet the requirements in a 21-day time limit, must in writing apply for an extension to requirements outline.

in the work order. The request will be reviewed, and the applicant notified with an amended date if approved.

NOTE: All requests for extensions for extenuating circumstances must have attached evidence that is current. Completion dates will be determined on a case-by-case review. The City will endeavour to work with property owners and/or occupiers that have extenuating circumstances to be bushfire prepared.

Compliant Outcome

Properties assessed after a routine fire hazard assessment and marked as compliant will be entered into the fire hazard assessment application and no further action will be required unless a fire hazard complaint is received.

NOTE: A compliant outcome is only considered compliant for that date and time the property was assessed. Continuous maintenance is required to ensure fire hazards do not accumulate.

Inaccessible properties

Properties where access by the FCO cannot be gained will be marked in the fire hazard assessment application as non-compliant until such time it can be assessed. The property owner will be notified by letter to contact the City within 21 days to organise a time when either owner and/or occupier is on site or for access to be made available.

If no contact has been made by the owner, normal process will be followed, and a follow up assessment will be conducted to determine if access is possible.

NOTE: Non-compliance from the owner either verbally or in writing, denying access for a fire hazard assessment may constitute an obstruction offence under section 57 of the *Bush Fires Act 1954*.

Fire hazard complaints (private property)

All complaints received by the Community Safety team will be subject to the same approach of routine and follow up assessments by an FCO. The property will be assessed and actioned appropriately maintaining a fair and equitable approach.

Should a property owner have a concern with the way an assessment has been conducted and/or the requirements of a work order that has been issued, the assessment will be reviewed by the Senior Fire and Emergency Management Officer. A request for a review should be provided in writing to enquiries@kalamunda.wa.gov.au

NOTE: Fire hazard complaints for City reserves, parks or state-managed land will be actioned under a different process.

State Land & Reserves

City reserves and verges are managed by the Parks and Environment team and hold their own strategies and mitigation plans. These parcels of land are not subject to a routine fire hazard assessment unless the FCO sights fire hazards as extreme or exceedingly high. Any complaints received regarding these parcels of land will be forwarded to the relevant contact for their action.

State land and UCL/UMR are subject to comply with the *Bush Fires Act 1954* and *Bush Fires Regulations 1954* however not routinely assessed by a City FCO due to the ongoing management and mitigation by state departments. Any complaints received will be requested to forward their concern or complaint directly to the department managing the land. If further requests are made for the City to action, the complaint will be forwarded to the relevant department contact for their action.

Zonings Certificate inspections

Zonings are captured with properties in the process of a sale or division and are subject to a fire hazard assessment between 1 November to 31 March. Zoning assessments will be completed by the Ranger team, who are also authorised FCOs. Zoning assessments will be checked prior to assignment to ensure it has not already been completed by an FCO in their allocated area to avoid assessment duplication.

Follow up fire hazard assessments.

Bush Fires Act 1954

Part III – Prevention of bush fires

Division 6 – General restrictions, prohibitions, and offences

s. 33(3). The owner or occupier of land to whom a notice has been given under subsection (1) and who fails or neglects in any respect duly to comply with the requisitions of the notice is guilty of an offence.

Bush Fires (Infringements) Regulations 1978 First Schedule

Item 21

s. 33(3) Failure of owner or occupier of land to comply with a notice requiring him to take action to plough or clear firebreaks or take other action to prevent the outbreak or spread of bush fires.

Non-Compliant Outcome

Properties deemed non-compliant after the secondary workorder however have made a significant attempt to complete the work required may be provided with a further workorder and advice.

Secondary assessment where insufficient work or no work has been undertaken will receive a 3rd work order and an infringement.

Compliant Outcome on a secondary workorder

Properties assessed after a secondary follow up and marked as compliant will be entered into the fire hazard assessment application and no further action will be required unless a fire hazard complaint is received (refer to page 31). NOTE: A compliant outcome is only considered compliant for that date and time the property was assessed. Continuous maintenance is required to ensure fire hazards do not accumulate.

Inaccessible properties

Properties where access was not achieved in the initial (routine) assessment and again after a follow up an infringement may be considered for obstruction under section 57 of the Bush Fires Act 1954. A letter notifying the owner to contact the City within 21 days is also sent to organise a time when either owner and/or occupier is on site or for access to be made available.

Properties where access was gained at the initial (routine), but not at a follow up will be marked in the fire inspection app as non-compliant until such time it can be assessed.

The property owner will be notified by letter to contact the City within 21 days to organise a time when either owner and/or occupier is on site or for access to be made available.

If no contact has been made by the owner after 21 days a second, follow up will be conducted and an infringement considered for obstruction.

NOTE: Non-compliance from the owner either verbally or in writing, denying access for a fire hazard assessment may constitute an obstruction offence under section 57 of the *Bush Fires Act 1954*.

Zoning Certificate Inspection follow ups.

After a secondary follow up is completed and if the property is still deemed non-compliant, an infringement may be issued to the current owner listed in the City's record. New owners that receive an infringement will either be required to take the matter to the property agent, pay the infringement and complete the works, or appeal on reasonable grounds for time to complete the works within 21 days.

NOTE: New owners that occupy the property will be issued a work order if deemed non-compliant to ensure fire hazards are actioned as per the Notice

Step 7 – Enforcement (1 Nov – 31 Mar)

Bush Fires Act 1954

Part III – Prevention of bush fires

Division 6 – General restrictions, prohibitions, and offences

s. 33 (4)(a) – the local government may direct its bush fire control officer, or any other officer of the local government, to enter upon the land of the owner or occupier and to carry out the requisitions of the notice which have not been complied with.

s. 33 (4)(b) – the bush fire control officer or other officer may, in pursuance of the direction, enter upon the land of the owner or occupier with such servants, workman, or contractors, and with such vehicles, machinery, and appliances as he deems fit, and may do such acts, matter and things as may be necessary to carry out the requisitions of the notice.

Outline

FCOs will continue their follow ups on non-compliant properties until compliance is achieved. At the third follow up assessment, an FCO may seek approval to proceed to engage a contractor to complete the works that have not been actioned. Further action to proceed to prosecution will be determined by the City.

NOTE: Infringements cannot be issued twice, and the next available action should be considered.

Execution

Non-Compliance

Infringements are issued under section 33(3) of the Bush Fires (Infringements) Regulations 1978 reflective of section 33 of the Bush Fires Act 1954. If a follow up identifies the property is still non-compliant, a contractor may be engaged by the City and at the property owner and/or occupier's expense, as stated under the Bush Fires Act 1954 s.33(5).

Engaging Contractors

The request to engage contractors to undertake works against a work order will be forwarded to Senior Management for review and approval. On approval, the contractor's invoice will be followed up through the finance team's internal processes. A completion date should follow the same 21-day time limit for completion with no more than 28 days in total.

Infringement Appeals

Property owners and/or occupiers that are issued a section 33 bushfire infringement have the right to appeal. The request can be made online or by completing the infringement appeal form available at Infringements Payment (kalamunda.wa.gov.au) or downloaded and emailed to enquiries@kalamunda.wa.gov.au.

NOTE: it is advisable to read the appealable grounds guidelines attached to ensure you are eligible to appeal, should your circumstance or grounds for appeal do not constitute an appeal your application will be denied.

On completion of the review process, the outcome will be communicated to the infringement holder. If the infringement holder disagrees with the review outcome, they can elect to have the matter heard in court. This request must be presented in writing to the city. Failure to notify the city may result in you notice going through to final demand and referred to the Fines Enforcement Registry. NOTE: both Final Demand and (FER (Fines Enforcement Registry)) action will incur additional fees.

NOTE: All bushfire infringement appeals must be made within a 21-day period. Any request for review after the 21-day period will be rejected unless evidence for on compassionate grounds is provided.

Prosecution

Recommendations for prosecution action to be taken regarding all bushfire related matters will be referred to Senior Management for approval.

Appendix 1 - Request for Variation

Fire Hazard Reduction Notice Request for Variation



Please complete and return this form which must be received no later than 1 October annually if you consider for any reason that it is impractical to meet a requirement of the current Fire Hazard Reduction Notice.

Applicant's Full Name: Date:
Postal Address:
Daytime Phone:
Email Address:

I consider it impractical to clear or construct firebreaks and/or carry out other bush fire prevention work in accordance with the City of Kalamunda Fire Hazard Reduction Notice issued in pursuant to section 33 of the Bush Fires Act 1954 at:

Variation Address:
Suburb: Post Code:
Property Size in m²:
Property Use (tick one): Vacant Residential Farming Orchard Cleared

Detailed Reason for Application

| |
|--|
| |
| |
| |
| |

Attached a property map outlining the varied fire-break or preparation work to be conducted.

You can obtain maps from: <https://www.google.com.au/maps>

List alternative prevention measures you will be taking to compensate for the variation

| |
|--|
| |
| |
| |
| |

I have read and understood the requirements/conditions of a Variation to the Fire Hazard Reduction Notice and that an administration fee of \$150 applies for any application received later than 1 October

Some reasons the application may not be approved -

- » There are dead-end fire breaks without sufficient turn around bays and signage.
- » Application document is not filled out in its entirety.
- » The applicant has the ability to achieve the requirements of the current Fire Hazard Reduction Notice as deemed by the City.
- » No attempt of alternative works has been provided in the application.

Fire Hazard Reduction Notice

Request for Variation



NOTE: If permission is not granted for this application you must comply with all the relevant requirements of the current Notice.

Variations are valid for the time of ownership of property, if the property is sold (new owners) the variation becomes void. If the applicant fails to adhere to the specified conditions, the City may revoke the variation. Grazing is subject to specified conditions and all grasses will need to be slashed no later than December 1st each year

Submission

A variation is only valid for the current fire hazard assessment season. If a property requires a variation, applicants are required to apply every year before 1 October, requirements of the Notice may be subject to change. Residents are advised to refer to the current Fire Hazard Reduction Notice to determine if they still require a variation.

An administration fee of \$150 applies for applications received after 1 October.

Note: If the form is submitted after 1 October and the administration fee is outstanding, the application will not be reviewed until the payment is received.

Property sale

A variation belongs to the applicant. If a property is sold (new owners), the current variation becomes void. The new owner will have to apply for a new variation if they believe the current Notice requirement/s are impractical, or complete the requirements of the current Fire Hazard Reduction Notice in full. The City may not automatically approve a variation based on a previous application.

For more information, visit the City's website and download the variation information sheet [here](#).

Application forms can be obtained by:

- » Applying online 'Apply for a Variation' at the City of Kalamunda website at www.kalamunda.wa.gov.au/our-city/fire/reduction-notice.
- » Downloading the form from the City of Kalamunda website at www.kalamunda.wa.gov.au/our-city/fire/reduction-notice and saving it to your computer.
- » Requesting a form in person at the City of Kalamunda Offices.

Once complete:

- » Email your completed application to enquiries@kalamunda.wa.gov.au
- » Send via post to
PO Box 42, KALAMUNDA WA 6926
(accounting for any postal delays)
- » In person visit the City of Kalamunda Offices at
2 Railway Road, Kalamunda

Payment Method



In Person

2 Railway Road, Kalamunda (Cash, Cheque, Money Order, Credit Card or EFTPOS)



Credit Card Payment

Only Mastercard or Visa will be accepted (a surcharge of 0.46% is payable on all credit transactions).

Payment by Credit or Debit Card

| | | | |
|-------------------|----------------------|-------------------------------------|-------------------------------|
| Cardholders Name: | <input type="text"/> | Mastercard <input type="checkbox"/> | Visa <input type="checkbox"/> |
| Card Number: | <input type="text"/> | | |
| Expiry Date: | <input type="text"/> | CVC: | <input type="text"/> |
| Amount \$ | <input type="text"/> | 0.46% surcharge applies | |
| Signature: | <input type="text"/> | Date: | <input type="text"/> |

Appendix 2 – Fire hazard Inspection Zones

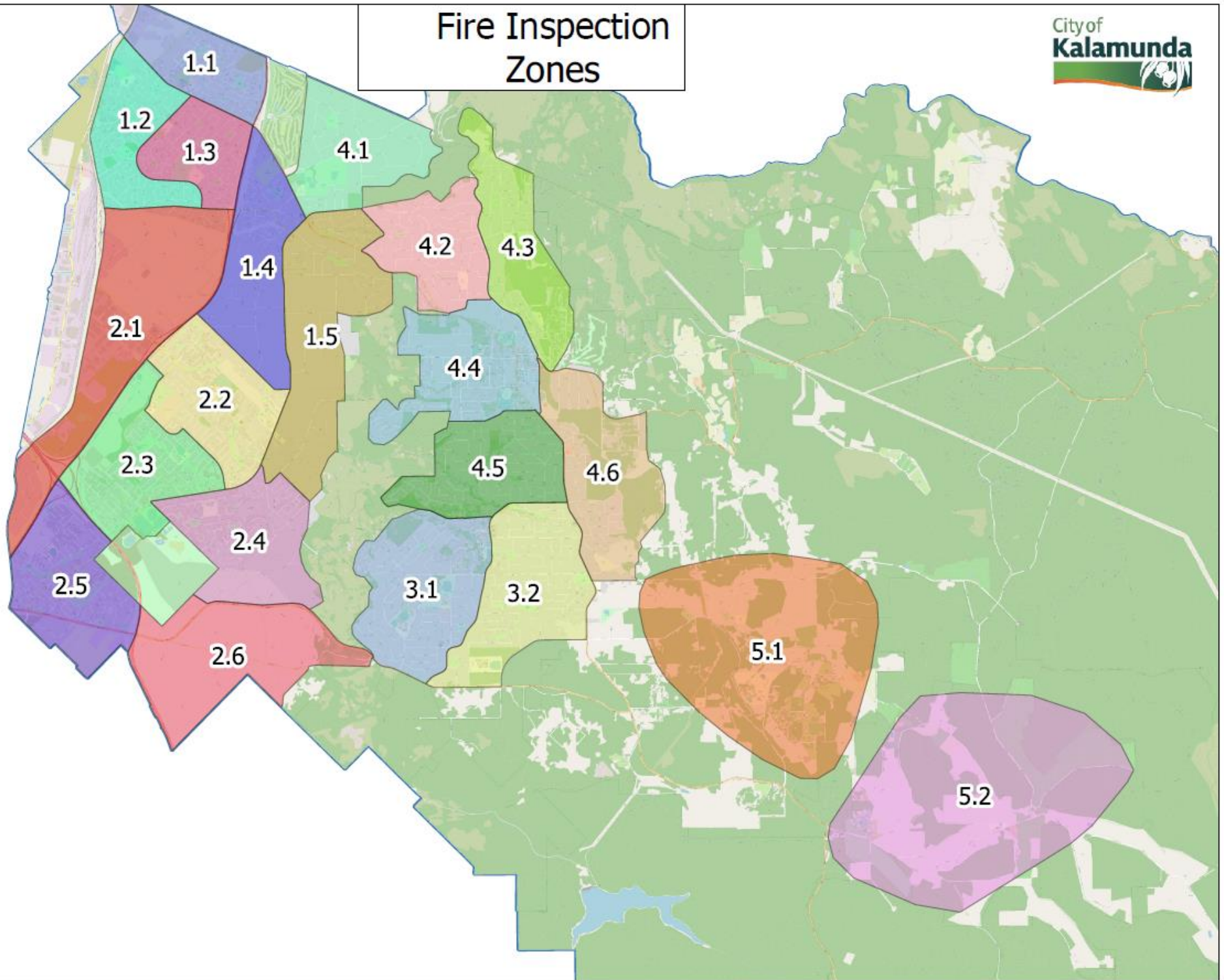
Inspection Zones by Suburbs

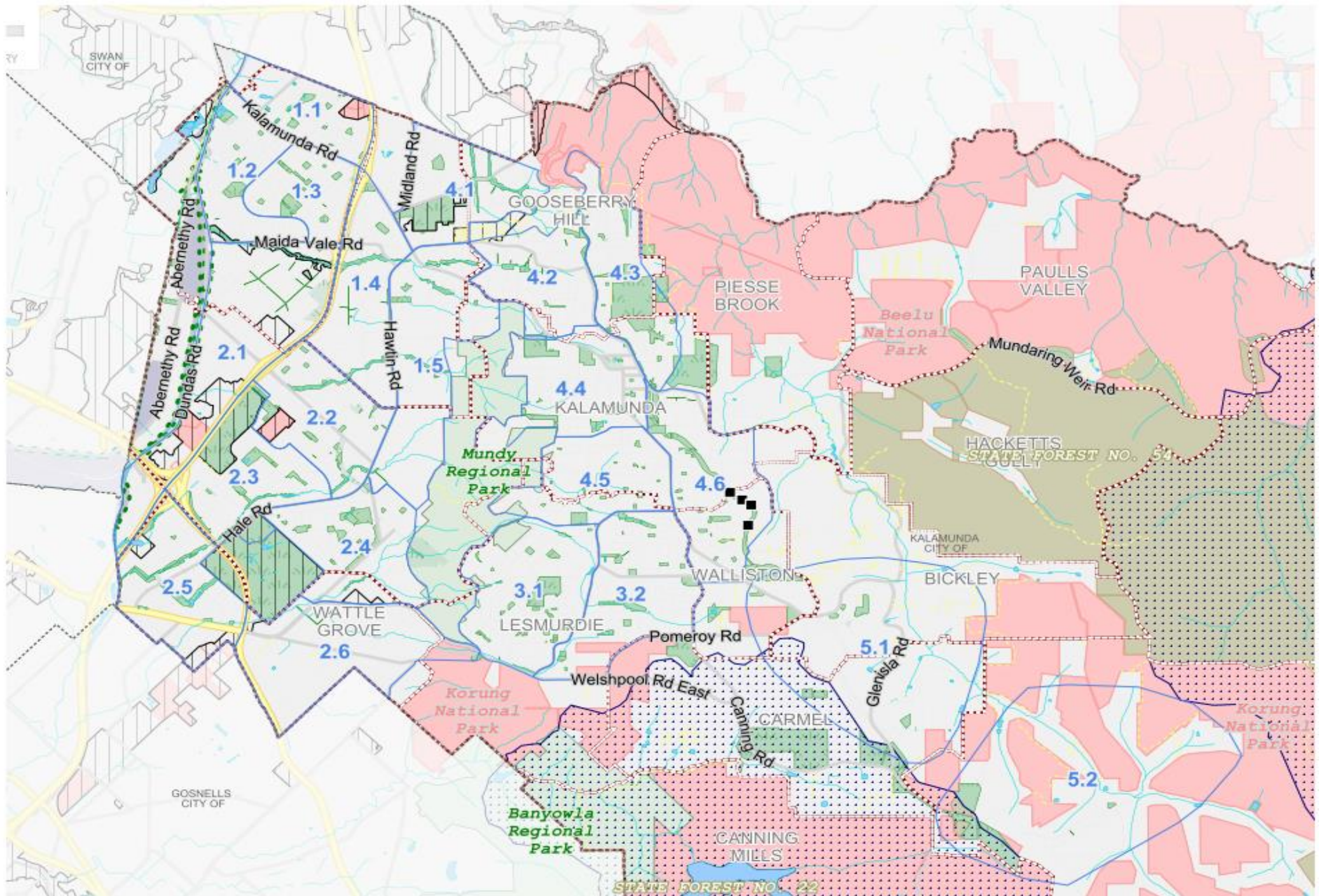
- 1.1 High Wycombe
- 1.2 High Wycombe
- 1.3 High Wycombe
- 1.4 Maida Vale
- 1.5 Forrestfield/Maida Vale
- 2.1 Forrestfield/High Wycombe
- 2.2 Forrestfield
- 2.3 Forrestfield
- 2.4 Forrestfield
- 2.5 Wattle Grove
- 2.6 Wattle Grove
- 3.1 Lesmurdie
- 3.2 Lesmurdie
- 4.1 Gooseberry Hill/Maida Vale
- 4.2 Gooseberry Hill
- 4.3 Gooseberry Hill/Kalamunda
- 4.4 Kalamunda
- 4.5 Kalamunda/Lesmurdie
- 4.6 Kalamunda/Walliston
- 5.1 Bickley/Carmel
- 5.2 Pickering Brook

Fig 1. Fire Inspection Zone Map



Fire Inspection Zones





Appendix 3 – Fire hazard breakdown

FIRE BREAKS

Fire breaks are a strip of land free of all flammable and combustible material along the boundaries of properties or blocks of land. Fire breaks are installed and utilized for several important reasons.

- Safe access for firefighting vehicles to park or move around a property.
- Supports fuel load management such as planned burning.
- Supports firefighting operations such as back burning.
- Forms an effective break in both vertical and horizontal continuity of the vegetation, which reduces flame height and makes suppression safer and easier.
- May slow or stop the spread of a low-intensity

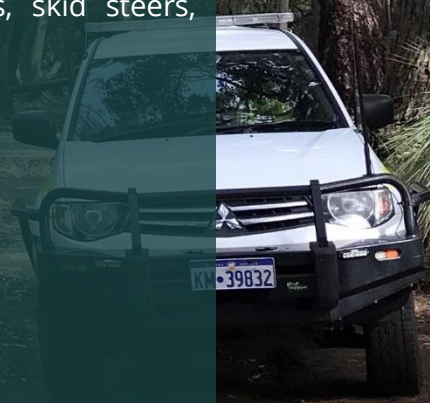


Fire breaks can often be installed using some of these methods:

1. Machinery such as dozers, front end loaders, skid steers, graders, or tractors.
2. Hand tools, such as rakehoes.
3. Ploughing.



Example of a good fire break



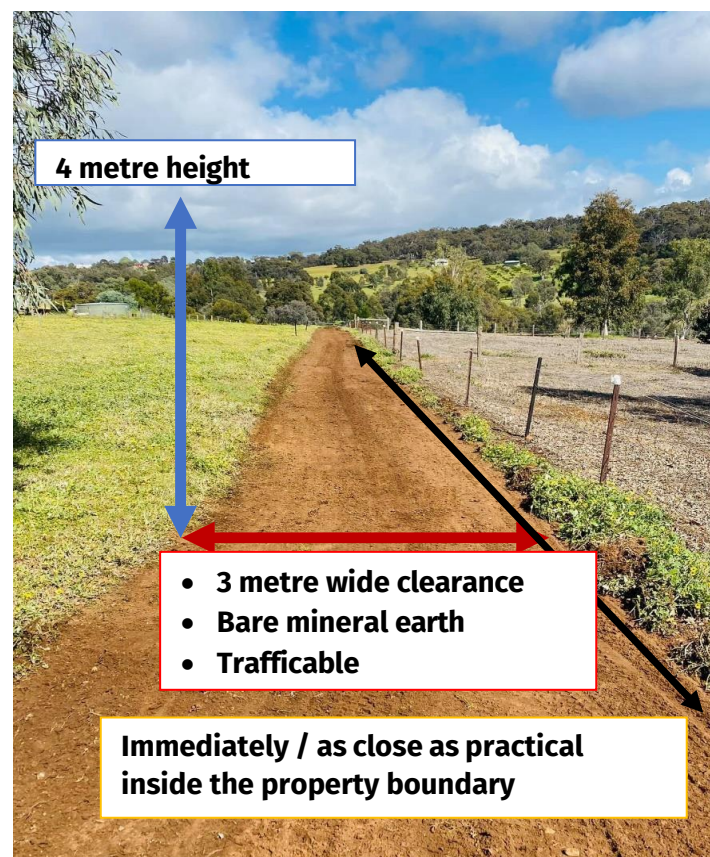
UNDERSTANDING FIRE BREAK REQUIREMENTS

All land with a total area of 5000m² or more

Install or upgrade a fire break that is 3 metres wide by 4 metre high clearance with a corner turning radius of up to 10 metres. This width means a firefighting appliance needs sufficient clearance to manoeuvre around bends and trees when driving fire breaks on properties. This height clearance ensures any low overhanging branches or bushes are trimmed reducing flame length making the chance for suppression easier and allowing good clearance for firefighters when on the back of firefighting vehicles.

Install or upgrade fire breaks to 3-metres-wide, 4-metres-height clearance, Continuous (no dead ends) and trafficable, and as close to as possible inside the entire perimeter of the land. This reduces the ability of a fire to spread. It also provides a clear safe track for vehicles to follow and work from, especially when smoke reduces visibility.

A maintained, reticulated and living lawn that's kept completely green all year around is acceptable in lieu of and/or in conjunction with a strip of land free of all flammable and combustible material. Dead fuels including grass provide easy fuel for fires to burn and spread at faster rates. Although a green lawn will still burn, but slower and at less intensity, allowing the ability to suppress easier.



spring months (depending on seasonal conditions) is high and when the months start to heat up, we see this growth period end meaning plants and grass lose the ability to draw moisture from the soil.

As moisture slowly disappears from grasses and other vegetation we see the risk of fire potential increase and in turn creates the risk for fast moving fires across any terrain.

Grass is considered a fine fuel meaning it burns faster than bush or forests and can generate large amounts of radiant heat



Grassfire - CFA Victoria 2021



Example of non-compliant grass



UNDERSTANDING SLASHING REQUIREMENTS

All land with a total area of 5000m² or more + All land with a total area less than 5000m²

Slash, mow, or trim unmanaged grasses or dead grasses/weeds, dead shrubs, and dead plants to a height no greater than 50mm. Managing dead grasses, dead shrubs and dead plants aids in reducing dead flammable material across the entire property. It also reduces flame height potential and rate of spread, particularly across open land where a fire is driven by wind. The combination of fire breaks and short grass can mean a better defensible space around the home and other assets, limiting the ability of igniting the building through direct flame contact or radiant heat.

The 50 mm requirement is a common measurement for most grasses to be mown down to, whether dead or living.

Cuttings from dead grass creates another fire hazard and contributes to the overall fuel load on the property. Leaving clumps of dead grass clippings means fine fuels sit on the surface of the ground increasing the risk of flame height and radiant heat. Dead fuels from grass cuttings provide easy fuel for fires to burn and spread at faster rates.

DEAD FLAMMABLE MATERIAL (DFM)

For fires to burn they need some sort of fuel to sustain them. For bushfires, it's the 'fuel' found on the surface of the ground and 'fuels' elevated from the ground such as shrubs and bushes. Fuel is the only factor in the fire triangle that we can control, meaning we have the ability to reduce the chance of the intensity of a fire, particularly around the home.

Reducing fuel loads can be conducted in various ways, such as:

Hazard reduction burns which aim to reduce the amount of surface litter and elevated fuels. It is best achieved by conducting a low-intensity (cool) burn.

Vegetation modification. Burning may not always be the best option to reduce fuel loads as burning too frequently can encourage weeds which consequently creates a fire hazard. Modification can be more economical and environmentally sustainable and can include:

- Raking,
- weed slashing,
- pruning,
- ploughing and other mechanical means.



Mechanical removal of the skirt from grass trees



UNDERSTANDING DEAD FLAMMABLE MATERIAL REQUIREMENTS

All land with a total area of 5000m² or more & All land with an area less than 5000m²

Reduce and/or maintain all dead flammable material below 8 tonnes per hectare. 8 tonne is calculated as an average amount of fuel loading where bushfires can be safely and effectively suppressed by machines, tankers, water bombers, and direct attack by firefighters (roughly 2000kW/m - 3000kW/m or less). This means a property's chance of defendability is increased (but not guaranteed).

This requirement is not asking property owners or residents to clear or remove all available dead flammable material but instead reduce it to a level that aids firefighting operations and reduces the severity of fire behaviour.

ASSET PROTECTION ZONE (APZ)

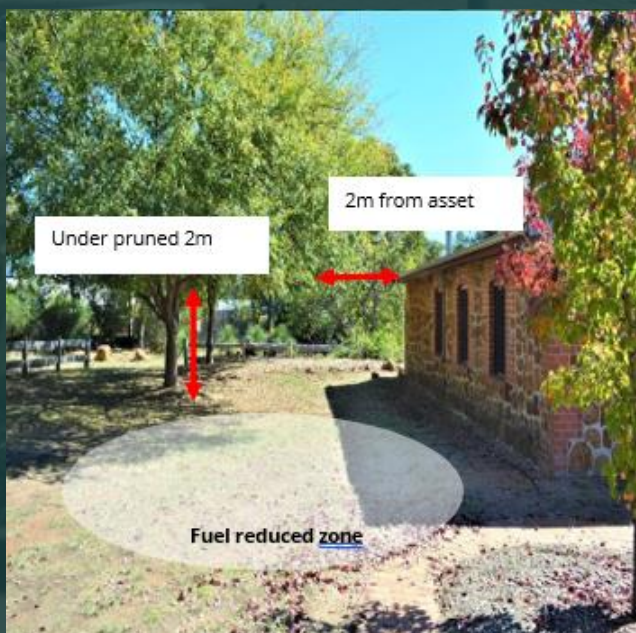
Rural-urban interface (RUI) is the area where structures and other human development adjoin or overlap with undeveloped bushland. This is where the degree of risk to life and property is most pronounced, and historically where the greatest losses have occurred.

Life and property protection in the urban-rural interface (RUI) is best achieved through a combination of risk management strategies, such as pruning trees and shrubs, reducing fuel loads, and removing any dangerous or flammable materials (e.g. fuels) from around the asset.

An asset protection zone (APZ) is commonly a 20-metre area surrounding any asset or home on the property and involves certain measures to ensure its preparedness against a bushfire threat.

The objectives of an APZ are to:

- Provide separation between buildings and the bushfire hazard to reduce the level of bushfire attacks on buildings or other assets.
- Minimise the likelihood and impact of direct flame contact, radiant heat, and ember attack from a bushfire.



Example of required work within an APZ



UNDERSTANDING ASSET PROTECTION ZONE REQUIREMENTS (inc gutters)

All land with a total area of 5000m² or more + All land with an area less than 5000m²

Keep gutters, roofs, and walls of buildings free of flammable matter and maintain them in this state. Keeping gutters free of flammable material reduces the likelihood of embers during a fire landing in or under gutters causing fires to spread into roof spaces. Embers can travel for kilometres so even if a bushfire isn't threatening the area directly embers can still be a threat to the home.

Keep fuel loads within the 20 metres APZ reduced and maintained no more than 2 tonnes per hectare. 2 tonnes is calculated the same as how 8 tonne per hectare is. It's an average amount of fuel loading where bushfires can be safely and effectively suppressed. This means a properties chance of defendability is increased (but not guaranteed).

This requirement is not asking property owners or residents to clear or remove all available dead flammable material but instead reduce it to a level that aids firefighting operations and reduces the severity of fire behaviour.

Within the 20 metre APZ, any tree over 5 metres in height must be under-pruned up to a height of 2 metres. Under pruning large trees within the 20 meters asset protection zone means less fuel for a fire to burn and travel.

Within 2 metres of the building, any trees or shrubs need to be pruned away from the building no less than 2 metres away and pruned down to a height no more than 2 metres. Pruning shrubs, branches and smaller trees within the 2 meters of the asset or home means less fuel for a fire to burn and travel. This also means a reduction in flame height that can impact a home directly.

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SEMC, Wooroloo Bushfire Review, The State Government has released the independent review into the Wooroloo bushfire.(Bushfire Risk Management Plans 4.50, Page 17) [Reports and Reviews \(semc.wa.gov.au\)](https://www.semc.wa.gov.au/reports-reviews)

Bushfire emergency information is available from



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Emergency.wa.gov.au



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