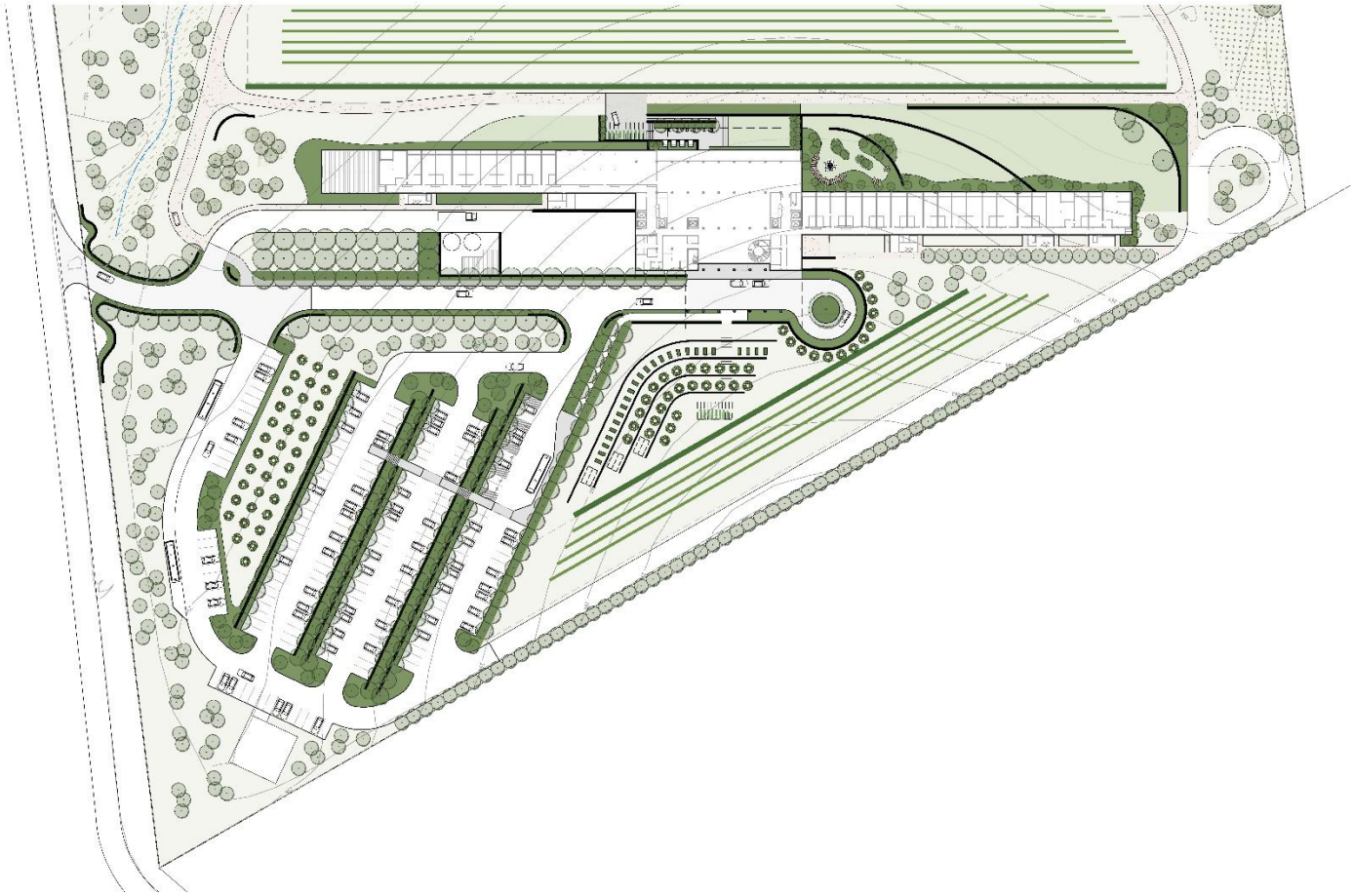
APPENDIX 17

Code Response & Bushfire Risk Assessment & Bushfire Emergency Management Plan : SA Bushfire Solutions
Concept Fire Safety Strategy : Lucid Consulting

Southern Barossa Winery & Tourist Accommodation Project

Code Response & Bushfire Risk Assessment Document

July 2025



SA BUSHFIRE SOLUTIONS

Version	Date	Description	By
V1	11 July 2025	First draft	Britnie Hocking SA Bushfire Solutions
V2	30 July 2025	Second draft	Britnie Hocking SA Bushfire Solutions
V3	21 August 2025	Final	Brett Stephens SA Bushfire Solutions

Table 1 – Document Control

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SA Bushfire Solutions has compiled this report, and the information contained within is current as of the date of publication. Any Bushfire Emergency Management Plan or Bushfire Response Plan is current only at the date of issue; it is up to you to maintain the Australian Standard AS3959:2018 (or equivalent) and AS3745:2018 (or equivalent) for the property and/or building. Failure to maintain the property and/or building to these standards may compromise an insurance policy if it currently covers any of your assets or any third party that may be consequently affected due to such failure. If not insured, and if you are seeking insurance, this report may not influence the decision of any insurer not to offer coverage. To the extent permitted by law, SA Bushfire Solutions will not be held liable for any claims, demands, costs or expenses for any personal injury, property damage or death arising out of failure by you to maintain the property and/or building to AS3959:2018 (or equivalent) and AS3745:2018 (or equivalent).

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Any fire safety work, including but not limited to planned burning, back burning and/or fire suppression, on any property or building is specifically excluded from this report.

*Where the term **"Bushfire prevention and mitigation related activities"** (or words to that effect) are used, this is to be defined as the clearance of vegetation per the South Australian State Government guidelines, including clearing and maintenance of existing fire breaks and/or fire access for firefighters under electricity pylons and properties that have been constructed to Australian Standard AS3959 and/or the National Construction Code.*

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Glossary of terms and abbreviations

Within the National Framework for Fire Risk Mitigation, the fire protection industry has identified four main themes and areas of focus for fire outcomes. These areas are:

Prevention: Prevention activities aim to minimise the occurrence of bushfires, particularly those of human origin, occurring during periods of extreme weather conditions.

Preparedness: Preparedness actions are undertaken in anticipation of fires. Adequate preparedness arrangements are implemented to improve bushfire response performance.

Response: Bushfires are suppressed and managed to reduce the risk to human life, communities, essential and community infrastructure, industries, the economy, and the environment. The protection of human life will be assigned priority over all other considerations.

Recovery: Returning community, economic and business activities to a healthy state, resulting in a sustainable and economically viable community.

The bushfire risk assessment will primarily deal with prevention, preparedness, and response. The following terms, abbreviations and acronyms have been used throughout this report.

Term	Meaning
AFAC	Australasian Fire and Emergency Service Authorities Council.
APZ	Asset Protection Zone: This zone utilises extensive fuel management to provide the highest protection to human life, property, key community assets, and critical infrastructure.
AS 3959:2018	Australian Standard 3959:2018 Construction of buildings in bushfire-prone areas
BCA	Building Code of Australia
The Code	The Planning & Design Code
Bushfire	An unplanned fire in vegetation, including grassfires.
Bushfire Hazard	Materials that can fuel a fire
Bushfire Management	A systematic process that identifies and assesses assets and provides a range of treatments that contribute to the well-being of communities and the environment, which suffer the adverse effects of wildfire/bushfire.
BMA	Bushfire Management Area
BMC	Bushfire Management Committee
BMP	Bushfire Management Plan
BOM	Bureau of Meteorology.
Bushfire Prone Vegetation	Means continuous vegetation including grasses and shrubs but not including maintained lawns, parks and gardens, nature strips, horticultural areas, vineyards and orchards
Bushfire Risk	The probability of a bushfire starting and spreading, but it can also be used to describe the likelihood of an asset, such as a building, being damaged or destroyed by a bushfire
Bushfire Threat	Potential bushfire exposure of an asset due to the proximity, type of hazard, and the slope on which the asset is situated.
SACFS	South Australian Country Fire Service
SAMFS	South Australian Metropolitan Fire Service
COP	Code of Practice
CSIRO	Commonwealth Scientific and Industrial Research Organisation

Defendable Space	An area of managed vegetation around an asset is likely to be at risk from bushfire. It protects it from direct flame contact and intense radiant heat, providing an area where firefighters can defend the asset.
DEW	Department for Environment and Water
EIR	Environmental Impact Report
Fine Fuel	Dead plant matter less than 6mm in diameter.
FDS	Fire Danger Season
Fuel Break	Synonymous with “firebreak”; any natural or constructed change in fuel characteristics affects fire behaviour so that fires burning into them can be more readily controlled. Fuel breaks will not stop a significant bushfire, but provide a fire control line to suppress a fire.
Fuel Structure	The fuel quantity, type and arrangement at different heights above the ground are usually separated into surface, near surface, elevated and bark.
FDI	Fire Danger Index
FBI	Fire Behaviour Index
FDR	Fire Danger Rating (superseded by AFDRS)
AFDRS	Australian Fire Danger Rating System.
Hazard Reduction	Reducing fuel loads in any given area. Generally, by burning, mechanical, manual or chemical means
Likelihood	The chance of a bush fire igniting and spreading.
Managed Vegetation	Combustible material that is permanently maintained in a minimal fuel state.
Minimum Fuel Condition	A condition where fine fuels are minimised to the extent that the passage of a fire will be prevented or severely restricted. This generally requires the removal of dead fine fuel and the control of live fuel, breaks in the continuity of any fuel, maintenance of a high moisture content in vegetation, or replacement of vegetation with roads, tracks, paths, etc.
Major Bushfire	A bushfire that requires the attendance of multiple brigades or causes damage to property or injury to one or more persons.
PDI	Planning, Development, and Infrastructure Act (2016)
Risk Acceptance	Accepting the consequences and the likelihood of a particular risk is an informed decision.
Risk Assessment	The overall process of risk identification, risk analysis and risk evaluation.
Risk Treatment	The process of selection and implementation of measures to modify risk.
Shelter-in-Place	A designated building or approved site that affords temporary shelter from bushfire.
SBCC	State Bushfire Coordination Committee
SAPPA	South Australia Property & Planning Atlas
NERAG	The Attorney General's Department published National Emergency Risk Assessment Guidelines in 2009. Conforms to international standards for risk management AS/NZS ISO 31000:2009
OFH	Overall Fuel Hazard. The classes used to quantify OFH are Low, Moderate, High, Very High, and Extreme.
NCC	National Construction Code
Vulnerability	The susceptibility of an asset to the impacts of bushfire.

Table 2 - Glossary of Terms and Abbreviations

1 Executive Summary

Strategic Alliance is preparing an Environmental Impact Statement (EIS) for a proposed 150-room 5-star accommodation project, accompanied by a winery, cellar door, and restaurant. Given the increasing bushfire risk throughout Australia, addressing the potential impacts on life and property from bushfire is imperative.

SA Bushfire Solutions has been engaged to conduct a comprehensive Bushfire Risk Assessment and a Bushfire Emergency Management Plan for the Southern Barossa Winery & Tourist Accommodation Project at Williamstown, South Australia.

This project is in the Barossa Region, South Australia, adjacent to existing vineyards. The Bushfire Risk Assessment aims to ensure the project's compliance with safety in relation to bushfires. Additionally, to inform aspects of design that may contribute to risk mitigation and management for the site.

This assessment considers all possible external and internal factors that enhance prevention, preparedness and response.

The residual bushfire risk rating in the qualitative Bushfire Risk Assessment is lowered with the implementation of all twenty (20) recommendations. By implementing these recommendations there will be a reduced likelihood and consequences of bushfires by prioritising the protection of human life, guiding design and build standards, policy development and strategic planning for future investments.

2 Purpose

SA Bushfire Solutions has been engaged by Strategic Alliance, 'the Client,' as the developers for the Southern Barossa Winery & Tourist Accommodation Project, to identify the potential bushfire risks that the future infrastructure may be exposed to relating to all operations and occupancy of the site, including:

- undertaking a site visit to assess the bushfire risk to life and property.
- potential hindrance to suppression operations concerning the daily operations of the facility.
- providing a detailed and comprehensive qualitative Bushfire Risk Assessment.
- informing the overarching EIR document being prepared by Strategic Alliance.

The primary objective of the **Bushfire Risk Assessment** is to:

- identify the potential bushfire risks to life and property
- review the site against the project development plans and provide an analysis of potential bushfire scenarios that may impact the infrastructure and any associated requirements for bushfire mitigation and safety.
- provide insight into potential future project expansion availability, including additional location analysis.

The Primary objective of the **Bushfire Emergency Management Plan (BEMP)** is to:

- Define the actions, roles, and responsibilities of all staff, guests, and contractors.
- Ensure all staff, guests, and contractors are appropriately and safely managed from the risks of bushfire.
- Documents the organisational arrangements, systems, strategies, and procedures relating to the response and management of bushfires, ensuring that the bushfire risk and potential impacts are reduced for staff and guests.

This plan is authorised by the Emergency Control Organisation (ECO) for the site.

3 Methodology

A bushfire risk assessment must consider the broader landscape to define the bushfire environment and identify possible risks to the infrastructure and landholders. It is crucial to gather (and assess separately) information across many key inputs so that when the data is combined, we have the best indication of bushfire risk.

As part of the Bushfire Risk Assessment, SA Bushfire Solutions has:

- reviewed the proposed plans for the proposed tourist facility and related infrastructure.
- undertaken detailed site assessments looking at;
  - Bushfire fuels (Fuel Hazard Assessments)
  - Access and egress: (Fire Tracks and Fuel Breaks)
  - Bushfire history analysis
  - Vegetation management of the property and surrounding areas.
  - Water supply and availability across the sites.
  - Asset Protection Zones (APZs)

The overall risk assessment process requires a consistent approach. The methodology developed and found in the *AS/NZS ISO 31000:2009* is incorporated into the National Emergency Risk Assessment Guidelines (NERAG).

4 Fire Management Legislation Context

Fire Management in South Australia must consider a range of legislation, policies, procedures, and guidelines relevant at the Local, State, and Federal levels. The following table summarises those relative to fire management in South Australia.

Legislation	***Key outcomes***
Fire and Emergency Services Act 2005	• Framework for Bushfire Management and Bushfire Emergency Response in South Australia
Emergency Management Act 2004	• Framework for emergency incident response and recovery
Native Vegetation Act 1991 ***National Parks and Wildlife Act 1972*** ***Crown Land Management Act 2009*** ***Natural Resources Management Act 2004***	• Framework for environmental management
Development Act 1993	• Framework to identify bushfire-prone areas and the enactment of regulations for planning and building
Local Government Act 1999	• Framework for local government districts to "take measures to protect its area from natural and other hazards"
Other Relevant Legislation, Codes and Regulations	Native Vegetation Act 1991 (SA) Section 29 Native Vegetation Regulations 2003 (SA) Section 5A-1 and 5(1) (zi) Environment Protection and Biodiversity Conservation Act 1999 National Parks and Wildlife Act 1991 (SA) Wilderness Protection Act 1991 (SA) Crown Land Management Act 2009 (SA) Development Act 1993 Development Regulations 2008 Natural Resources Management Act 2004

Table 3 - Bushfire Legislation Summary Table

5 Bushfire Policy and Planning Context

5.1 South Australian Country Fire Service

The South Australian Country Fire Service (SACFS) is the hazard leader for rural fires and is responsible for protecting life, property, and the environment. The SACFS undertakes this through:

- Legislation
- Operational doctrine
- Public information and community engagement
- Bushfire prevention activities
- Bushfire management planning

5.2 Planning and Design Code

The Planning and Design Code (The Code) is a single document that outlines planning requirements for all types of building work in South Australia. In 2016, the South Australian government introduced the Planning, Development, and Infrastructure Act (PDI) to supersede the 1993 document, the Development Act 1993.

The Code was enacted on 19 March 2021, replacing all Development Plans across South Australia. The State's single planning rule book contains policies for assessing a development application under the Planning, Development, and Infrastructure Act 2016.

The Southern Barossa Winery & Tourist Accommodation Project site is subject to the Assessment Provisions (AP) and corresponding Desired Outcomes (DO), as well as Performance Outcomes (PO) as defined by the Code for the Hazard Overlays – Bushfire.

5.3 Bushfire Management Committee (BMC)

South Australia has a two-tiered structure for bushfire management (as per Division 7 Fire and Emergency Services Act 2005)– a State Bushfire Coordination Committee (SBCC) and a Bushfire Management Committee (BMC) in each of the nine Bushfire Management Areas (BMAs) (refer to Figure 1).

The CFS has an established Bushfire Management Planning Unit that assists BMC in preparing Bushfire Management Area Plans (BMAPs).

The BMCs play a critical role in landscape-scale Bushfire Risk Assessment and are key to ensuring a coordinated approach to implementing mitigation strategies among various organisations and agencies.

The State Bushfire Management Plan sets out the framework for bushfire management in South Australia and details the procedures for preparing and implementing the BMAPs:

- Steps to identify assets at risk of Bushfire.
- Assessment of Bushfire risk to those assets.
- Options to treat the identified risks.
- A framework to implement risk mitigation programs.
- Expectations for monitoring and reporting risk treatments.
- A process for assessments and review.

Whilst CFS engages with all stakeholders to assist in producing a BMAP, each organisation and landowner is responsible for implementing the risk treatments on land under their care and control.

5.4 Adelaide and Mount Lofty Ranges Bushfire Management Committee

The Adelaide and Mount Lofty Ranges Bushfire Management Committee (AMLRBMC) provides strategic direction for bushfire management planning and implementation in the BMA. As part of its legislative responsibilities, the BMC follows an established process to identify bushfire risks and recommend treatment strategies in its pre-determined geographic area.

The committee aims to coordinate the implementation of bushfire mitigation measures and apply these strategies across the landscape, adopting a tenure-blind approach to managing bushfire risk. Unfortunately, the committee lacks the resources to identify and recommend treatment strategies for every individual property or local area.

5.5 Bushfire Protection Areas

Following the January 2003 Canberra bushfires, the State Government convened the Premier's Bushfire Summit to review existing planning, environment, and building safety regulations that were last amended 20 years earlier following the 1983 Ash Wednesday bushfires.

A bushfire hazard rating was calculated using the 'McArthur fire model'. Inputs to this include slope, aspect, weather (temperature and humidity), vegetation data (including fuel loads) and population growth.

The analysis of this data resulted in the current designated Bushfire Protection Areas across SA, divided into three distinct levels of bushfire risk:

- General Bushfire Risk
- Medium Bushfire Risk
- High Bushfire Risk.

Some areas, generally townships and urban areas, with adequate fire protection measures that are defined as 'excluded', where it is not considered necessary to introduce specific bushfire planning or building requirements.

Areas still considered to be bushfire-prone but have a lower risk to lives and property, either due to environmental factors, adjacent fuel hazard or remoteness, are recognised as:

- Urban Interface areas
- Outback Bushfire Risk
- Regional Bushfire Risk

The Southern Barossa Winery & Tourist Accommodation Project site is within the High-Risk Hazard Overlay for bushfire (refer to Figure 2).

Following the May 2022 declaration by the State Government of a climate emergency, the necessity to update planning systems around bushfire risk formed the basis for the State-Wide Bushfire Hazards Overlay Code Amendment. The bushfire hazard policies found in Part 3—Overlays of the Code were due to be amended in 2024 (following consultation) to better reflect the observed increase in the frequency and intensity of extreme weather events. *At the time of this report, the consultation is ongoing, and no amendments have been finalised.*

The outcomes of the amendments are likely to include:

- The replacement of the High, General & Medium Risk Overlays with a single Bushfire Hazard Overlay
- Retention of the Outback and Urban Interface areas of the Overlay
- Removal of the Regional Bushfire Risk Overlay

The spatial data used to generate the new bushfire hazard mapping for the Amendment is to better reflect the current risks of bushfires by utilising more current vegetation mapping and fuel modelling.

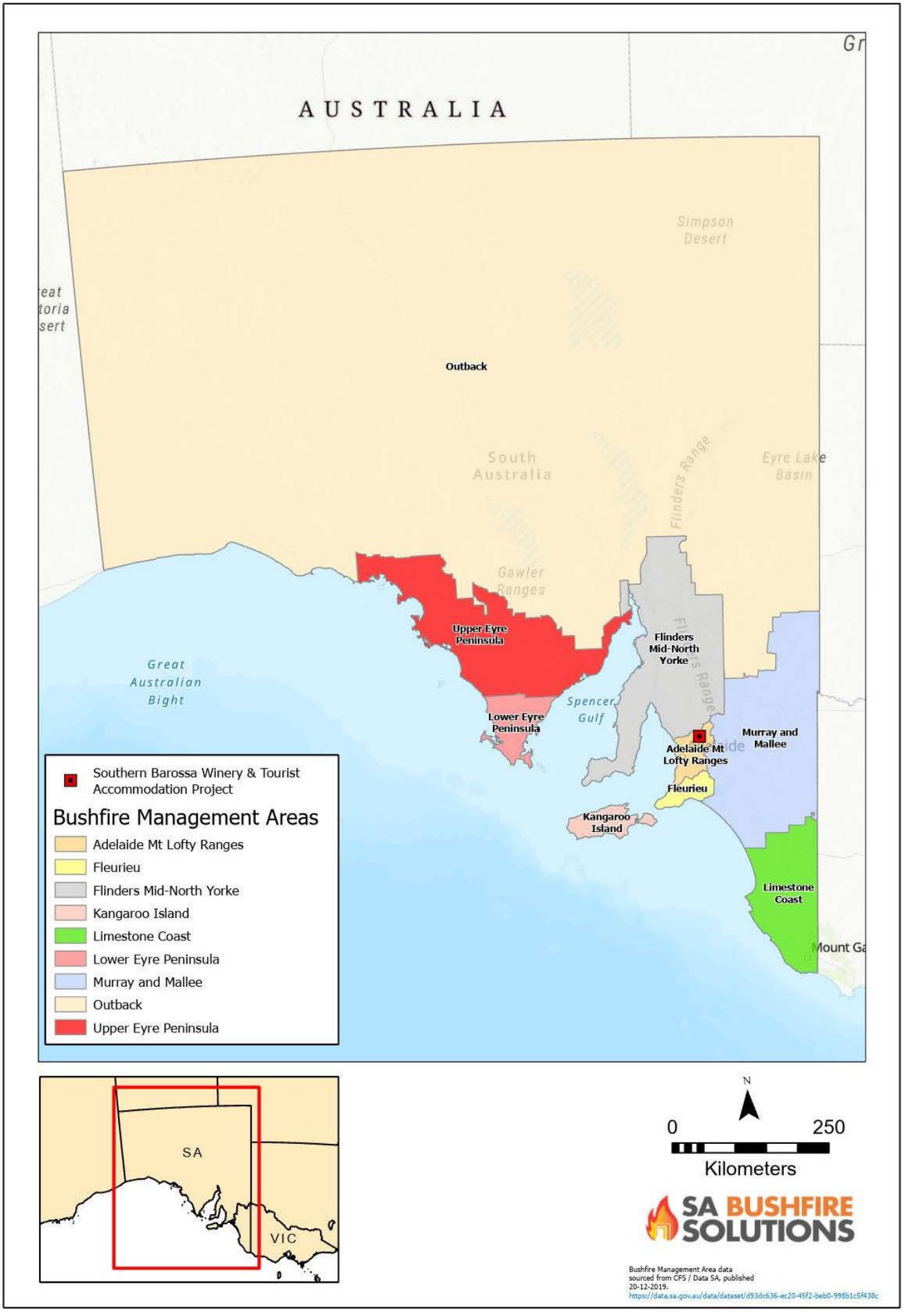


Figure 1 - Bushfire Management Areas

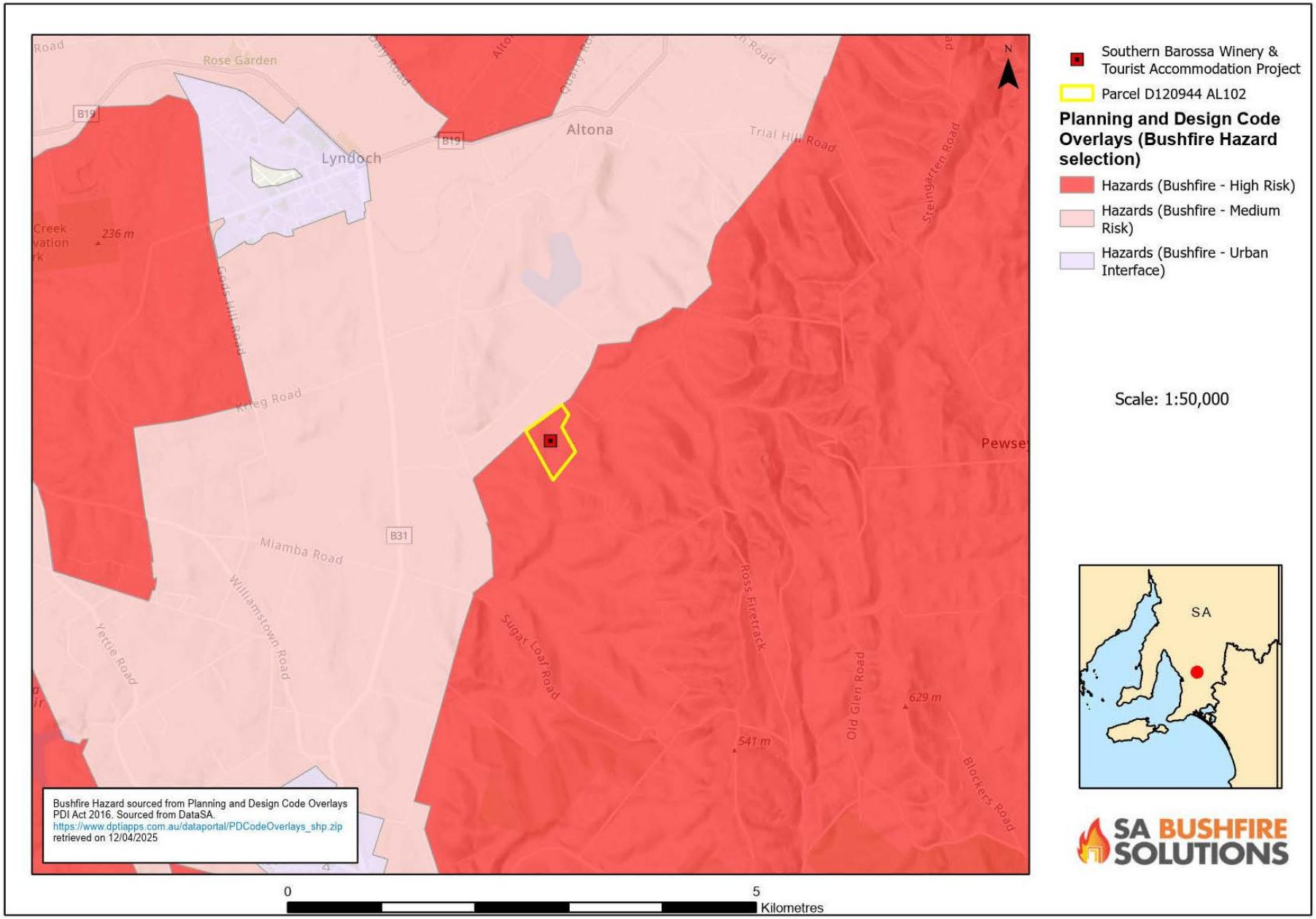


Figure 2 - Bushfire Protection Areas.

5.6 Code of Practice for Fire Management on Public Land in South Australia

The Code of Practice for Fire Management on Public Land in South Australia (CoP) recognises the Department for Environment and Water (DEW), Forestry SA and SA Water as the responsible government agencies for managing fire on all public lands in SA. The Code also acknowledges the shared responsibility across the landscape with the SACFS, local Government and all private landholders to protect life, property, and environmental values through the management of fire.

The CoP contains overarching principles, performance measures, and desired outcomes for Fire Management Programs. The principles complement the State Bushfire Management Plan. The CoP has been referenced to ensure a consistent approach to fire management is applied across the landscape.

5.7 Department for Environment and Water Fire Management

The Department for Environment and Water (DEW) develop Fire Management Plans to guide fire management activities on public lands in high-fire-risk areas across South Australia.

The Fire Management Plans aim to assess the risk of a bushfire, identify objectives for fire management, outline strategies, and propose works to increase the level of bushfire preparedness within the area outlined in the plan.

Adopted fire management plans remain current for ten years unless they are required to be reviewed due to a major fire, a change in policy, objectives or management direction, or on-ground works.

6 Building Codes and Policies

6.1 Planning, Development, and Infrastructure Code (PDI Code)

As part of the PDI Code, Tourist Accommodation is defined under Habitable Dwellings as *"premises in which temporary or short-term accommodation is provided to travellers on a commercial basis [and includes buildings used as] onsite services and facilities primarily for the use by guests [and] facilities for the management of the accommodation."*

The Assessment Provisions and the corresponding Performance Outcomes are defined by the Planning, Development, and Infrastructure Code (The Code) – Hazards (Bushfire-Urban Interface) Overlay.

Habitable dwellings, including tourism facilities, must also be constructed to meet the current Australian Standard for the Construction of Buildings in Bushfire-Prone Areas (AS 3959:2018) and the Government of South Australia Ministerial Building Standard MBS 008, Designated Bushfire-Prone Areas Additional Requirements.

The requirements of the PDI Code for Habitable Dwellings must therefore be met for the development to be deemed suitable for the purpose. Primarily, this pertains to

- facilitating access for emergency service vehicles to aid the protection of lives and assets from bushfire danger,
- access to a dedicated source of water for fire-fighting purposes and;
- ensuring that any proposed dwelling(s) be located away from vegetation posing bushfire risk. Generally, this is the determined Asset Protection Zone (APZ) for the proposed development.

6.2 PDI code response

6.2.1 Bushfire Attack Level Assessment (BAL)

A Bushfire Attack Level (BAL) Assessment determines the bushfire attack level as defined in *AS3959-2018* as a *"means of measuring the severity of a building's potential exposure to ember attack, radiant heat, and direct flame contact"* (refer to Figure 4). The Standard was adopted as part of the *Building Code of Australia* (BCA) on 1 May 2010.

The *AS 3959:2018 is "primarily concerned with improving the ability of buildings in Designated Bushfire-Prone Areas to better withstand attack from bushfire, thus giving a measure of protection to the building as well as its occupants. The survivability of buildings is also dependent on a combination of measures such as landscaping, water supplies, access & egress, building design and maintenance."*

The standard combines scientific calculations with practical information on radiant heat exposure to an asset at the fire front based on fuel type, topography, and distance in metres to the asset.

Buildings constructed throughout Australia before the introduction of this Australian Standard are at greater risk from the effects of bushfire as they were not built to withstand potential bushfire impacts such as ember attack, radiant heat, and direct flame contact.

A BAL assessment determines the size of an Asset Protection Zone (APZ). It assesses the interaction between classified vegetation, local topography, and the distance between the proposed asset and vegetation. The BAL measures potential bushfire impact via ember attack, radiant heat, or direct flame contact.

In establishing an APZ, A BAL assessment was conducted by SA Bushfire Solutions as per

- the Australian Standard *AS3959:2018 Construction of buildings in bushfire-prone areas* (AS 3959:2018).
- and in accordance with Ministerial Building Standard 008 (MBS 008) sections 2.2 (b) and 2.3 (e).

A BAL for the site and proposed developments has been determined using the

- Detailed Method (refer to Appendix B of AS 3959-2018), which employs an FDI of 100 (higher than the recommended SA prescription).
- The classification of the current vegetation has been determined using
    - Table 2.3, "Classification of Vegetation," in AS 3959:2018;
    - areas of "low threat" vegetation have been excluded under section 2.2.3.2. "Exclusions – Low threat and non-vegetated areas".

For the current project and future development at the Southern Barossa Winery & Tourist Accommodation Project, "Indicative" BAL Assessments were conducted for the affected areas. Reverse-engineering the designated setback distances to the local classified vegetation to determine the nominal BAL Flame Zone to 12.5 for each. See Appendix 3 for Nominal BAL advice.

SA Bushfire Solutions recommends a 'plus one' approach with developments for tourism (the building is constructed to one BAL level higher than the adjacent classified vegetation requires). For example, where a building envelope's BAL rating is 12.5 in relation to the identified hazardous vegetation, the dwelling is constructed to a BAL 19, adding a layer of conservatism to the emergency management strategies.

6.2.2 Access/Egress

Performance Outcome 6.2 of "The Code" for Vehicle Access –Roads, Driveways and Fire Tracks asks that:

"Access to habitable buildings is designed and constructed to facilitate the safe and effective:

- *use, operation and evacuation of fire-fighting and emergency personnel*
- *evacuation of residents, occupants and visitors."*

This can be met by the Deemed to Satisfy/Designated Performance Feature (DTS/DPF) for this Performance Outcome, where: *"a clear and unobstructed vehicle or pedestrian pathway of not greater than 60 metres in length is available between the most distant part of the habitable building and the nearest part of a formed public access road."*

Figure 3 (below) demonstrates the following plans intended to meet these provisions. The main access to the site, as well as emergency vehicle access, will be via Menzel Road, where the internal driveway provides access to the main building entry, where the dedicated fire water infrastructure shall be located.

The driveway access is designed to serve as the hardstand adjacent to the firefighting infrastructure. The car park design allows the SACFS to enter and exit in a forward direction.

In meetings with the key stakeholders, the SACFS have indicated that the proposed locations for the fire water infrastructure (Figure 3) would be *"optimal position for…easy access with the truck and proximity to the building."*

6.2.1 Water Storage and Access

Performance Outcome 4.3 of "The Code" for Habitable Dwellings requires:

"Residential and tourist accommodation and habitable buildings for vulnerable communities (including boarding houses, hostels, dormitory style accommodation, student accommodation and workers' accommodation) have a dedicated area available that:

- *is capable of accommodating a bushfire protection system comprising firefighting equipment and water supply in accordance with Ministerial Building Standard MBS 008 - Designated bushfire prone areas - additional requirements.*
- *includes the provision of an all-weather hardstand area in a location that:*
    - *allows fire-fighting vehicles to safely access the dedicated water supply and exit the site in a forward direction*
    - *is no further than 6 metres from the dedicated water supply outlet(s) where required."*

For water storage and access designated for the sole purpose of firefighting, a volume of at least 22,000L must be accessible, per the MBS 008.

Pending the results of the SA Water flow test and Network analysis testing that is currently occurring, there are multiple options to service the firefighting demands of the proposed tourist accommodation developments, and include the addition of two onsite fire pumps, both of which are to be diesel driven, and not reliant on power being available during any emergency they may be required.

The following site plan (Figure 3) demonstrates the water storage tanks, outlets and pump housings relative to the hardstand where an emergency vehicle will be required to access this water.

6.1 Bushfire Refuge

All State and Territory governments adopt the Building Code of Australia (BCA) as a mandatory, performance-based code for the design and construction of *Class 1* to *Class 10* buildings. The BCA does not contain specific provisions relating to the design and construction of a Community Bushfire Refuge (refuge) or private bushfire shelter. However, it provides tables of *"acceptance criteria"* to comply with the identified performance requirements.

Noting the BCA performance and acceptance criteria for private or community bushfire refuges, SA Bushfire Solutions recommends (to avoid confusion against the BCA standards) that any reference to buildings possibly called a *"Bushfire refuge"* be replaced with a *"dedicated shelter-in-place"* building.

In the event of a bushfire, a building designated as a Shelter-in-Place location should be identified to house guests for sheltering operations or to facilitate an efficient evacuation. This building should be large enough to occupy the facility's maximum capacity and constructed to a BAL rating.

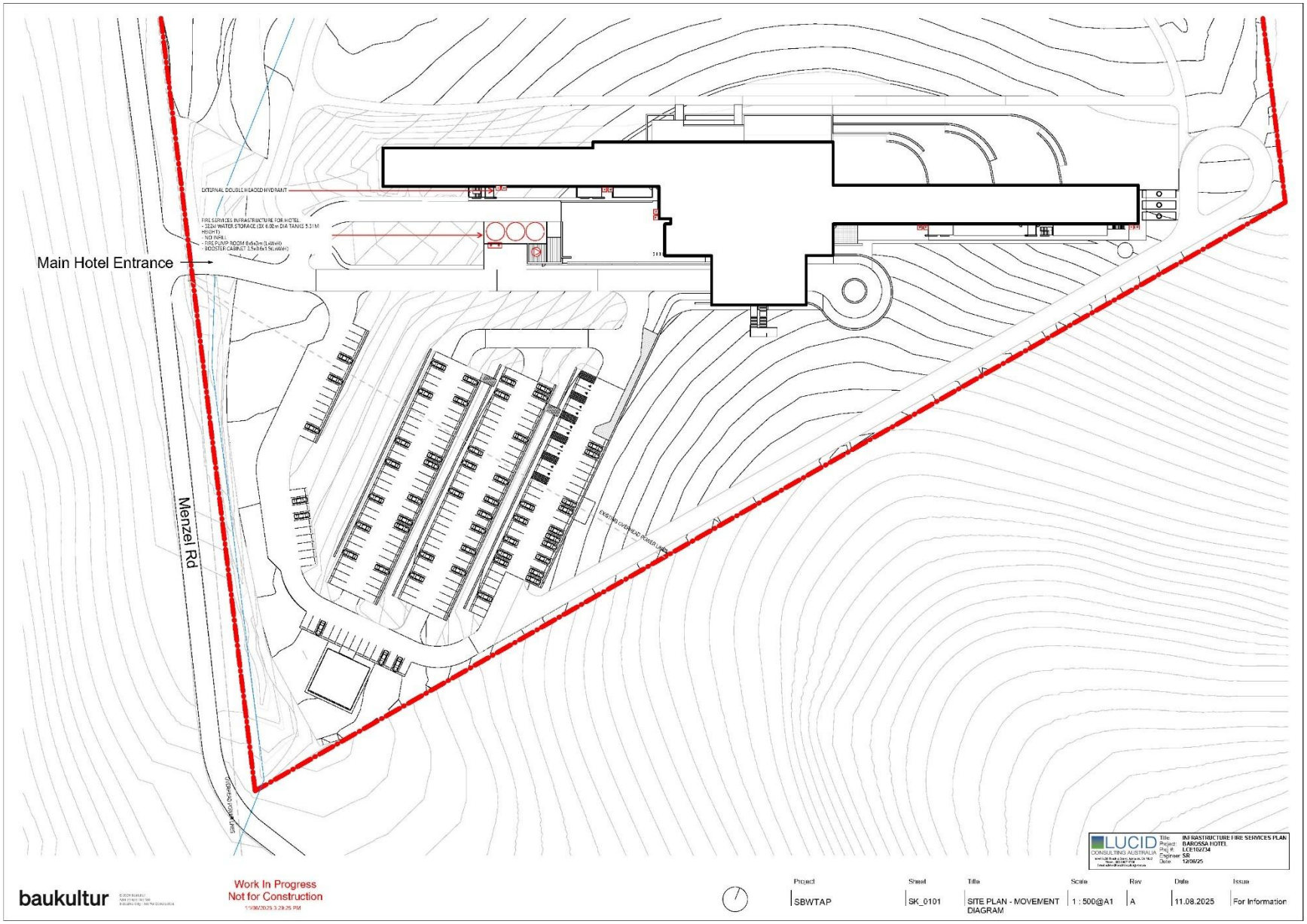


Figure 3 – Tourist Accommodation fire water infrastructure designations, locations & infrastructure

Bushfire attack level	Radiant heat exposure (AS 3959) and levels of exposure	Description of Predicted bushfire attack and levels of exposure
BAL - LOW	Insignificant	The risk is very low, radiant heat on the building is insignificant to warrant specific construction requirements, however ember attack may still occur. If you are in a designated BPA, you must however construct to a minimum BAL 12.5
BAL – 12.5	0 to 12.5 kW/m2	Primarily risk of ember attack; risk of radiant heat is considered low
BAL - 19	12.5 to 19 kW/m2	Risk is considered moderate with increasing levels of ember attack and burning debris ignited by wind borne embers; increasing likelihood of exposure to radiant heat
BAL - 29	19 to 29 kW/m2	Risk is considered to be high with increasing levels of ember attack and burning debris ignited by wind borne embers; increasing likelihood of exposure to radiant heat
BAL - 40	29 to 40 kW/m2	Risk is considered to be very high. Increasing levels of ember attack and burning debris ignited by wind borne embers; increasing likelihood of exposure to radiant heat and some direct exposure to flames possible
BAL - FZ	40 kW/m2plus (Flame Contact)	Risk is considered to be extreme. Direct exposure to flames from fire front is likely in addition to high levels of radiant heat exposure and ember attack

Figure 4 - Bushfire Attack Level (BAL) Summary

7 Bushfire Environment

7.1 Bushfires in Australia

The island continent, Australia and the state of South Australia are among the most fire-prone areas in the world. They have a history of catastrophic bushfires due to the hot, dry conditions that characterise summer, the availability of bushfire fuels, and our choice to live and work in this high-risk environment.

Bushfire safety is considered a shared responsibility between the Government (State and Local), the fire services, local communities, and individuals. All parties are responsible for preparing to protect themselves and their interests from bushfires before the fire season.

The rate at which a bushfire can spread directly results from the weather, fuel hazard (including dryness, quantity, and arrangement) and the topography in which the fire is burning. The only one of these three factors that is possible to modify is the bushfire fuel.

Extreme fire conditions can occur in Australia when dry Winters and Springs allow bushfire fuels to become very dry.

Under this combination of conditions, fires can be expected to move quickly under the influence of strong, gusty north/north-westerly winds. These fires can then move rapidly in a different direction when the subsequent south/westerly wind change arrives. Fires that start under these conditions can reach very high intensity, even in areas of relatively low fuel loads, and can be difficult to control until the weather conditions abate.

The higher the intensity of a bushfire, the more destructive it is and the more difficult it is to control. As the intensity increases, so does the difficulty of containment and effective suppression. Very high-intensity fires with flame heights greater than ten metres are generally uncontrollable.

7.2 Bushfire History in South Australia

South Australia has experienced numerous devastating bushfires due to the hot, dry conditions that characterise its summers. Bushfires can occur from October through to May, but historically the most devastating have occurred in January and February.

The 2019/2020 season was the most recent significant bushfire season in South Australia, with many bushfires impacting throughout the state, including the fires at Cudlee Creek and Kangaroo Island.

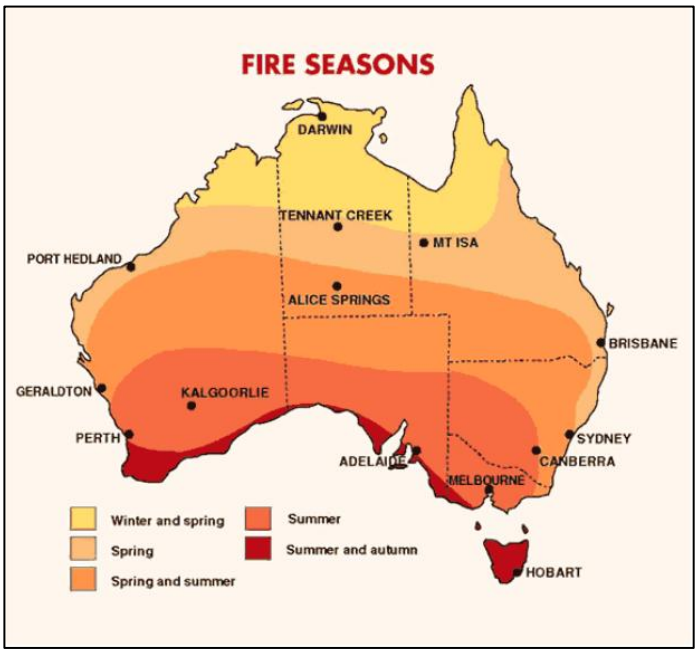


Figure 5 - Bushfire Seasons in Australia.

7.3 Role of South Australian Fire Services

There are four major fire agencies in South Australia: The South Australian Metropolitan Fire Service (SAMFS), the South Australian Country Fire Service (SACFS), the Department for Environment and Water (DEW), and Forestry SA.

The SAMFS and SACFS, together with the SA State Emergency Services, are members of the South Australian Fire and Emergency Services Commission (SAFECOM), a government organisation established to improve communication and coordination across the various emergency service sectors.

7.3.1 South Australian Metropolitan Fire Service (SAMFS)

The SAMFS provides a broad range of Emergency Services – fires, road crash rescue, gas leaks, chemical spills, rescues, structural collapse, animal rescue, storm damage, lockouts, flooding, smoke alarms and private alarms.

The MFS has 36 fire stations and over 1,000 personnel in Adelaide and major rural centres across South Australia. It also has one marine vessel.

7.3.2 South Australian Country Fire Service (SACFS)

The SACFS is a community-based fire and emergency service that operates in rural and semi-urban South Australia. It is staffed by 144 staff and comprises over 428 rural fire brigades with approximately 13,500 volunteers to manage day-to-day operations.

The SACFS attends Bushfires and grass fires, Building and motor vehicle fires, Road crash rescue, and Hazardous Material Spills (HazMat).

7.3.3 Department for Environment and Water (DEW)

DEW is responsible for ensuring that South Australia's natural resources are managed in a productive and sustainable manner, while enhancing the condition and resilience of the state's natural environment. They manage the state's public land (including Heritage and Crown lands), which consists of approximately 330 reserves covering 21.7 per cent of the state.

The Department is a registered CFS brigade and undertakes bushfire mitigation planning and works, supporting the CFS.

7.3.4 Forestry SA

Forestry SA manages 125,000 hectares of state-owned forest resources in South Australia. This consists primarily of softwood plantations but also includes 23,900 ha of Native Forest Reserves for nature conservation. Forestry SA lands are located mainly in the Green Triangle Region (southeastern coastal region), the Mount Lofty Ranges, and the Mid North Region.

7.4 Bushfire fuels

The main factors influencing bushfire behaviour are the quantity and distribution of fine fuels. Larger fuels burning during a bushfire do not contribute significantly to its spread.

Fine fuels available for a bushfire are fuels such as grass, leaves, dead pine needles and twigs that ignite readily and are consumed rapidly when dry. They are often defined as those dead fuels less than 6mm in thickness. Fine fuel load (measured in tonnes per hectare) has therefore been used as a convenient measure of the underlying bushfire hazard in areas dominated by woody vegetation. The fine fuel load at any given time is a balance between the rate of fuel buildup and factors that remove fuel, such as litter decomposition and fire.

Vegetation (bushfire fuel) can be categorised into four layers, and each layer has a different effect on fire behaviour. These layers are:

Surface fine fuels: leaves, bark, small twigs, and other fine fuel lying on the ground. These fuels provide the horizontal continuity that allows a bushfire to spread.

Near-surface fine fuels: grasses, low shrubs, bracken, etc. (up to about .5 m above the ground surface). Fuels in this layer will burn when the surface fuel layer burns, thereby increasing bushfire intensity.

Elevated fuels: larger shrubs and small saplings, with most of the fuel closer to the top of this layer and a clear gap between them and the surface fuels. These interact with the two-layer fuel layers to further increase bushfire intensity. They also contribute to the vertical continuity of fire that allows fire to 'climb' into the tree canopy.

Bark fuels: flammable bark on trees, saplings, and large bushes from ground level to the canopy. Loose fibrous bark on string-bark eucalypts and candle bark on some gums can generate large amounts of embers, which can start spot fires ahead of the main fire front.

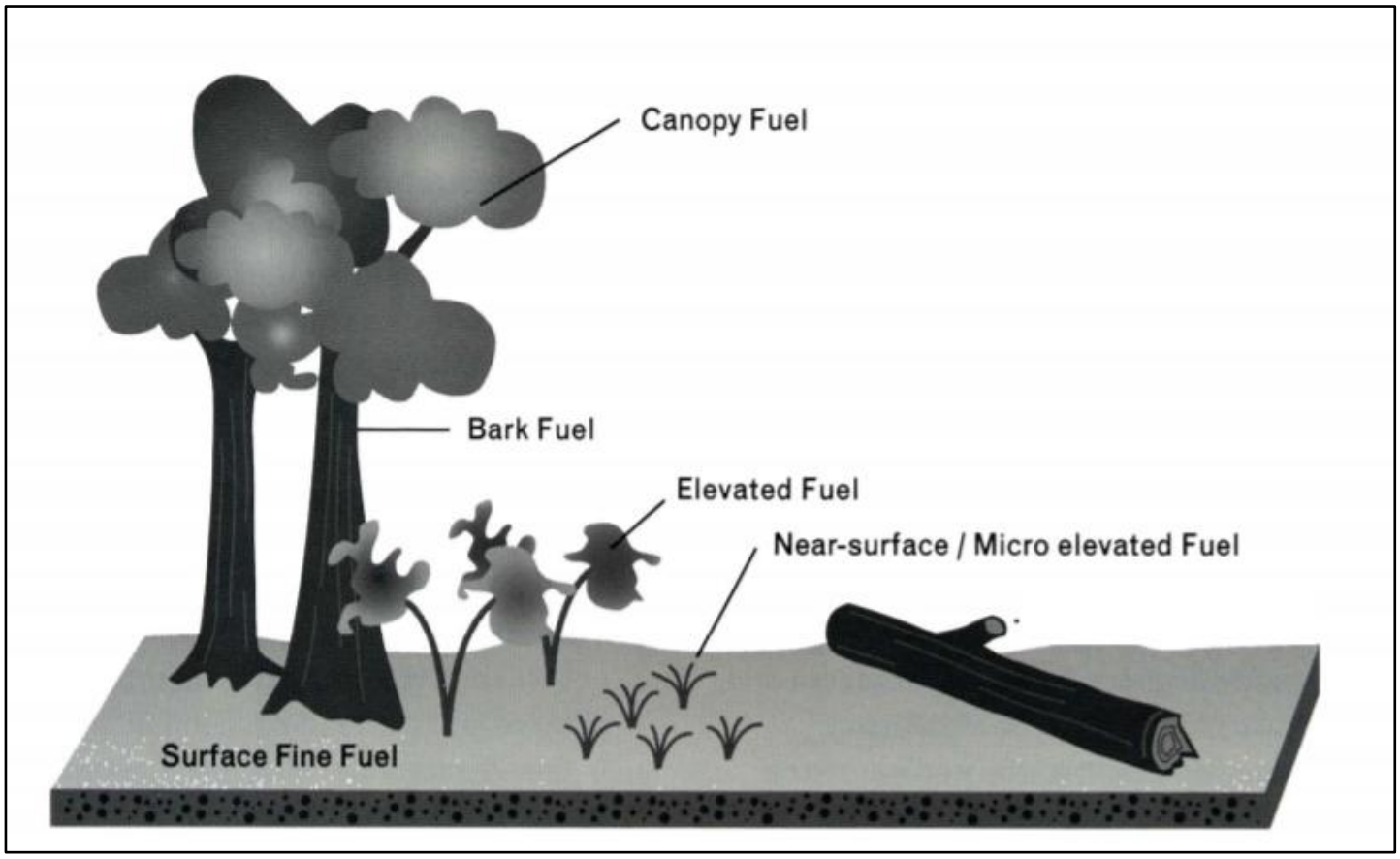


Figure 6 - Components of Vegetation Fuel Layers

7.5 Fire Behaviour

Fire direction and rate of spread (expressed in km/h), flame height, fire intensity, and ultimately, the fire agencies' ability to control the fire, are determined by climatic and weather conditions, topography, and the availability of fuel in the area.

Days of higher fire risk are often typified by the passage of a cold front, which causes fires to spread rapidly and then change direction due to the wind change.

Fires can be expected to move quickly under the influence of strong, gusty north winds and rapidly in a different direction when the subsequent south–westerly wind change arrives. Most of South Australia's catastrophic fires that have claimed lives and homes have been subject to this type of effect, with many fatalities resulting from people being trapped after the fire changed direction.

Fires that start under these conditions can reach a very high intensity, even in areas of relatively low fuel loads and can be difficult to control until the weather conditions abate.

Grass fires are predominantly wind-driven events that spread rapidly under the influence of strong winds. They burn at a lower intensity and flame height than forest fires and burn out quickly. Grass fires can often be rapidly extinguished with water.

In contrast, woodland/forest fires have more fuel (leaf and bark litter on the ground, shrubs, grasses, and trees) available for a fire to burn, but they travel more slowly. They can generate incredible amounts of heat energy and can even create their own weather under elevated fire weather conditions.

Bushfire intensity is a function of the heat content of the fuel, the quantity of fuel and the rate of spread of the bushfire.

7.6 Bushfires and Climate Change

The climate in South Australia is characterised by mild winters followed by hot and dry summers. The South Australian fire season typically occurs between the end of October and the start of May.

The CSIRO and Bureau of Meteorology (BOM) 'State of the Climate Report 2020' identified that "there has been an increase in extreme fire weather, and in the length of the fire season, across large parts of Australia since the 1950s, especially in southern Australia".

In May 2022, the Government of South Australia declared a climate emergency. This followed reviews and analysis of the 2019/2020 "Black Summer" bushfire season.

The changing climate is increasing the frequency of extreme fire weather events, as well as the size, scale, ferocity, and impact of bushfires. Such events pose a continuous challenge to the agency's fire suppression capacity and capability, as well as an increased threat to life, property, and environmental assets.

All documented evidence suggests that South-Eastern Australia is one of the most bushfire-prone areas in the world, and the associated risks from climate change indicate that it will only worsen. Recent data suggest that fuel loads across areas of South Australia have increased significantly due to uncommon extreme weather patterns, with above-average rainfall transitioning rapidly to below-average rainfall, thereby drying the available fuels and soil.

These effects of climate change are expected to:

- Affect fire regimes through its effects on temperature, rainfall, humidity, and wind.
- Warming and drying over much of Australia, especially South-Eastern Australia.
- An increase of 5 to 65% in the incidence of extreme fire danger days.
- Managing fire regimes to reduce property, people, and biodiversity risk will be increasingly challenging.

7.7 Community Notification

The SACFS provides information to support the community in understanding the Fire danger season, forecasting fire weather, predicting current and predicted fire impact locations, predicting bushfire behaviour, and recommending actions, including bushfire advice, Safer Place and Place of Last Resort locations.

7.8 Fire Danger Season

The CFS Chief Officer sets the Fire Danger Season (FDS) dates annually based on recommendations from respective BMCs and extensive consultation.

These dates can range from November 1st to April 30th, but they may vary according to seasonal conditions leading up to and during the summer months.

7.9 Fire Weather Warnings and Australian Fire Danger Rating System

The Bureau of Meteorology and the SACFS provide advice on forecast conditions that would make a fire unpredictable and difficult to control should a bushfire be ignited. This early advice is to assist the greater community in planning for the predicted significant fire weather days.

A review of BOM 4-day and daily fire weather forecasts should be observed to consider fire preparedness requirements and consequential actions, and ensure timely advice to all affected parties.

There are several terms utilised when informing the community of the potential or current bushfire risk, including.

- Australian Fire Danger Rating System (AFDRS)
- Fire Behaviour Index (FBI)
- Total fire bans
- Bushfire Warnings and Current Incidents
- Bushfire Alert Levels
- Lightning Activity Levels (LAL)

Fire weather forecasts can be available four days (up to seven days) in advance, and the AFDRS is routinely issued by 5 p.m. daily during the fire season.

AFDRS and Total Fire Ban information for days 2, 3, and 4 are preliminary forecasts and should be used as a guide only. These ratings may change due to both weather-related and non-weather-related factors. Total Fire Bans are officially declared after 4 p.m. the day before.

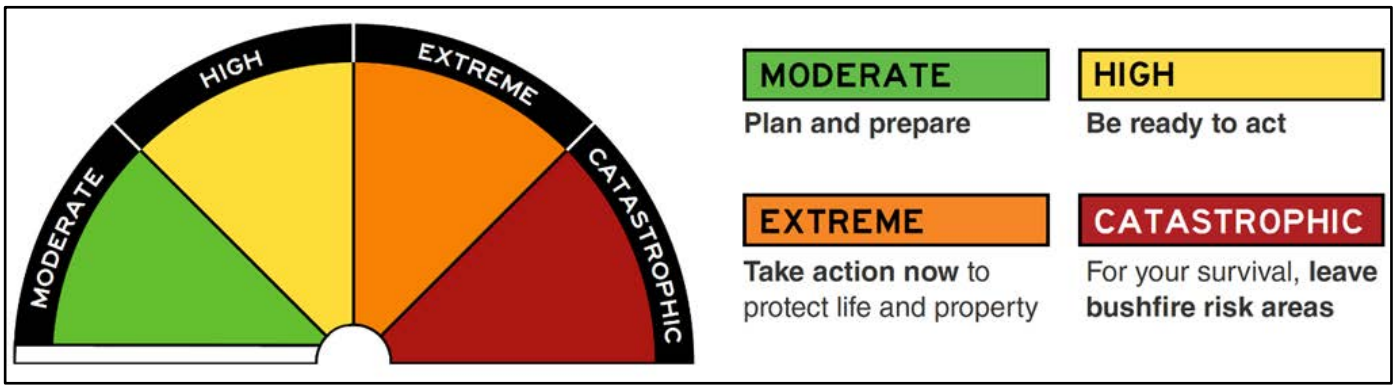


Figure 7 - Australian Fire Danger Rating System

Term	Description
Fire Danger Rating	The Australian Fire Danger Rating System indicates the severity of a bushfire if one were to start. For up-to-date Fire Danger Rating predictions, visit: Fire Danger Ratings
Total Fire Bans	SACFS declares a Total Fire Ban on days when fires are likely to spread rapidly and could be difficult to control. There are restrictions on days of Total fire bans to prevent fires from starting. For up-to-date information on what activities you can do on fire ban days, visit; Total fire bans - What can I do?
Lightening Activity Levels (LAL)	Is a scale that describes lightning activity. LAL 1 No thunderstorms LAL 2 Isolated thunderstorms. Light rain will occasionally reach the ground. Lightning is very infrequent, with 1 to 5 cloud-to-ground strikes occurring within 5 minutes. LAL 3 Widely scattered thunderstorms. Light to moderate rain will reach the ground. Lightning is infrequent, with 6 to 10 cloud-to-ground strikes occurring within 5 minutes. LAL 4 Scattered thunderstorms. Moderate rain is commonly produced. Lightning is frequent, with 11 to 15 cloud-to-ground strikes occurring within 5 minutes. LAL 5 Numerous thunderstorms. Rainfall is moderate to heavy. Lightning is frequent and intense, with greater than 15 cloud-to-ground strikes occurring within 5 minutes. LAL 6 Dry lightning (same as LAL 3 but without rain). This type of lightning has the potential for extreme fire activity and is usually highlighted in fire weather forecasts with a Red Flag Warning.

Table 4 – Fire Danger Ratings, Total fire ban and Bushfire warnings

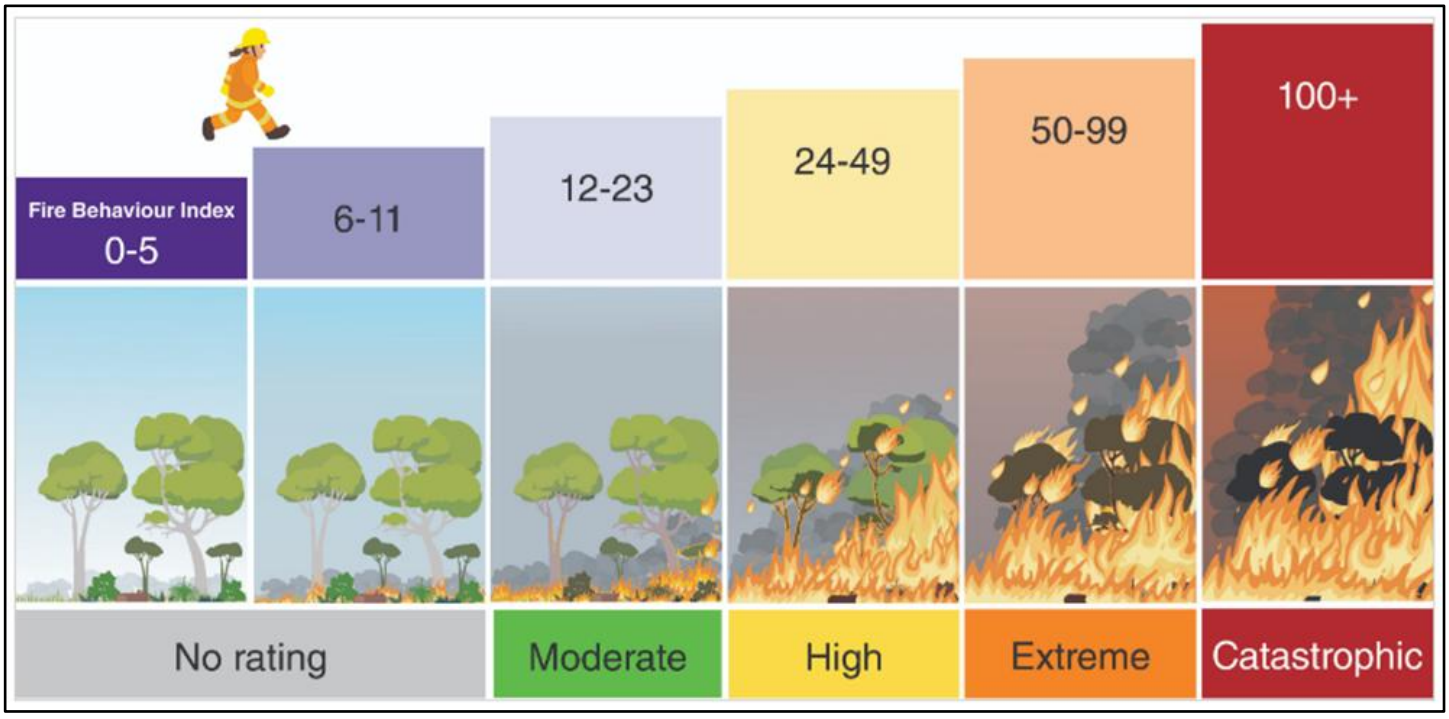


Figure 8 - Fire Behaviour Index within Australia

7.10 Bushfire Advice and Warning Messages

The SACFS provides information to support the community in understanding the current and predicted fire impact locations, predicted bushfire behaviour, possible impact areas, and recommended actions you should take. For up-to-date warnings, visit SACFS Bushfire warnings and incidents. The terms utilised when informing the community of the potential or current bushfire risk include.

Bushfire Alert Level	Consideration	Action Plan
'ADVICE' 	**'Observe and review'** Operate with a heightened level of caution and focus on a high level of diligence and alertness.	Minimise unnecessary access to the site. Evacuate early.
'WATCH and ACT' 	**'Plan to Shelter in Place or Evacuate'** A 'Watch and Act' message is received reporting a fire potentially threatening the sites and public safety. Prepare to shelter-in-place. Evacuation could be possible.	Prepare to move guests, staff and contractors to the assembly area and evacuation point. Evacuate early
'EMERGENCY WARNING' 	**'Evacuate or seek refuge'** An 'Emergency Warning' message of an uncontrolled bushfire where the loss of life or threat to the site is almost inevitable. Shelter in Place early before danger is present.	Shelter in Place is required. Move staff/guests/contractors to the Bushfire Shelter in Place location. Seek refuge in the Bushfire Shelter in Place location. Follow instructions and evacuate as instructed.

Table 5 –Action Plan for SACFS Bushfire Warning Messages.

7.11 Bushfire Safer Places & Last Resort Refuges

The SACFS have identified Bushfire Safer Places and Bushfire Last Resort Refuges for local government areas across South Australia.

Bushfire Safer Places and Last Resort Refuges will be used when your primary response plan has failed.

The CFS encourages all residents in high bushfire-prone areas or those travelling through these areas to ensure they have a well-prepared and practised bushfire plan.

'BUSHFIRE SAFER PLACE'	Adelaide Metropolitan area, outer suburbs, and rural settlements	Use if you need to relocate early. Suitable for use during forecasted bad fire weather or a bushfire event. It may be subject to sparks, embers, and smoke.
'BUSHFIRE LAST RESORT REFUGE'	Ovals, buildings in rural areas.	Use only if your plan has failed. It is unsuitable for extended use and provides limited protection during a bushfire.

Table 6 - Bushfire Safer Place and Last Resort Refuge

8 Site Overview

The Southern Barossa Winery & Tourist Accommodation Project is in the Municipality of the Barossa Council and the Hundred of Barossa. The site is located under a single title (CT6227/450) at the address Lot 102, Hoffnungsthal Road, Williamstown. The site is approximately 15km east of Gawler, 3.5km south of Lyndoch, 20km southwest of Nuriootpa, and an hour's drive from the Adelaide CBD (refer to Figure 9).

The property comprises approximately 21 hectares of commercial agricultural land, currently dominated by vineyards and large areas of grassland. The land surrounding the property is a mix of commercial enterprises, short-stay accommodations, and farming and horticultural land, used mainly for livestock grazing.

The land and properties immediately surrounding Hoffnungsthal Road are typical of the Barossa region, a tourism centre known for its cultivated beauty, agriculture, viticulture, and picturesque nature. The roads immediately surrounding the property are mostly narrow roads or informal accessways. Following Hoffnungsthal Road west will intersect with Lyndoch Valley Road, a main road running north-south which connects Lyndoch and Williamstown. Further southwest, beyond the Williamstown township, is the closest area of classifiable bushland, the Para Wirra Conservation Park, approximately seven kilometres away.

The only current structures within the project area are the existing vines and water tanks. Many buildings and structures exist in the surrounding areas, including additional homes, other tourist enterprises, machinery sheds, fencing, and other farming infrastructure. The structural integrity of which is not currently known.

The site location and current plan for the Southern Barossa Winery & Tourist Accommodation Project are referred to below in Figures 9 and 10. The greater Barossa area is surrounded by primary industry, with much of the land within the region being used for livestock, broadacre farming and viticulture. Central townships, Gawler, Lyndoch, and Nuriootpa, all contribute highly to the Barossa's value as a highly developed, commercial tourism centre.

Operational activities require the presence of onsite staff and contractors to support management, general and maintenance activities. The project, which will comprise a new tourist accommodation building and a winery, will involve regular management, cleaning and maintenance of the accommodation grounds and viticulture infrastructure, as well as daily reception, cellar door and housekeeping activities.

It can be expected that there will be a requirement for various personnel, including maintenance, cleaning, and guest services. It can also be anticipated that a significant number of contractors will be present during the project's construction, as well as in the event of any future expansions. As part of this operation, there will likely be requirements for the transport and storage of potentially hazardous and/or flammable substances.

The predominant human presence affecting the site once it is developed will be the guests and staff, who are regularly on site, both inside and outside of operating hours.

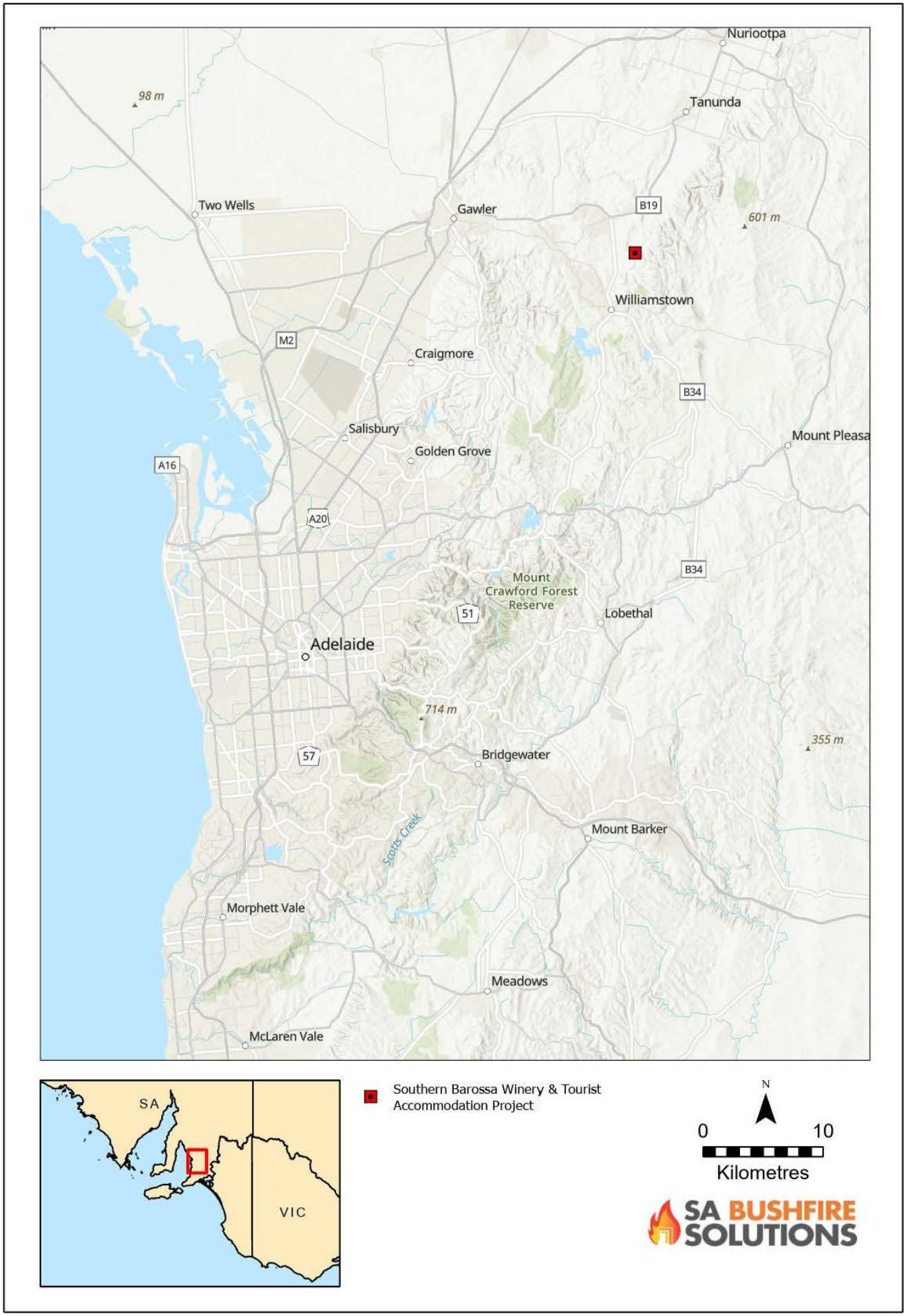


Figure 9 - Site Location

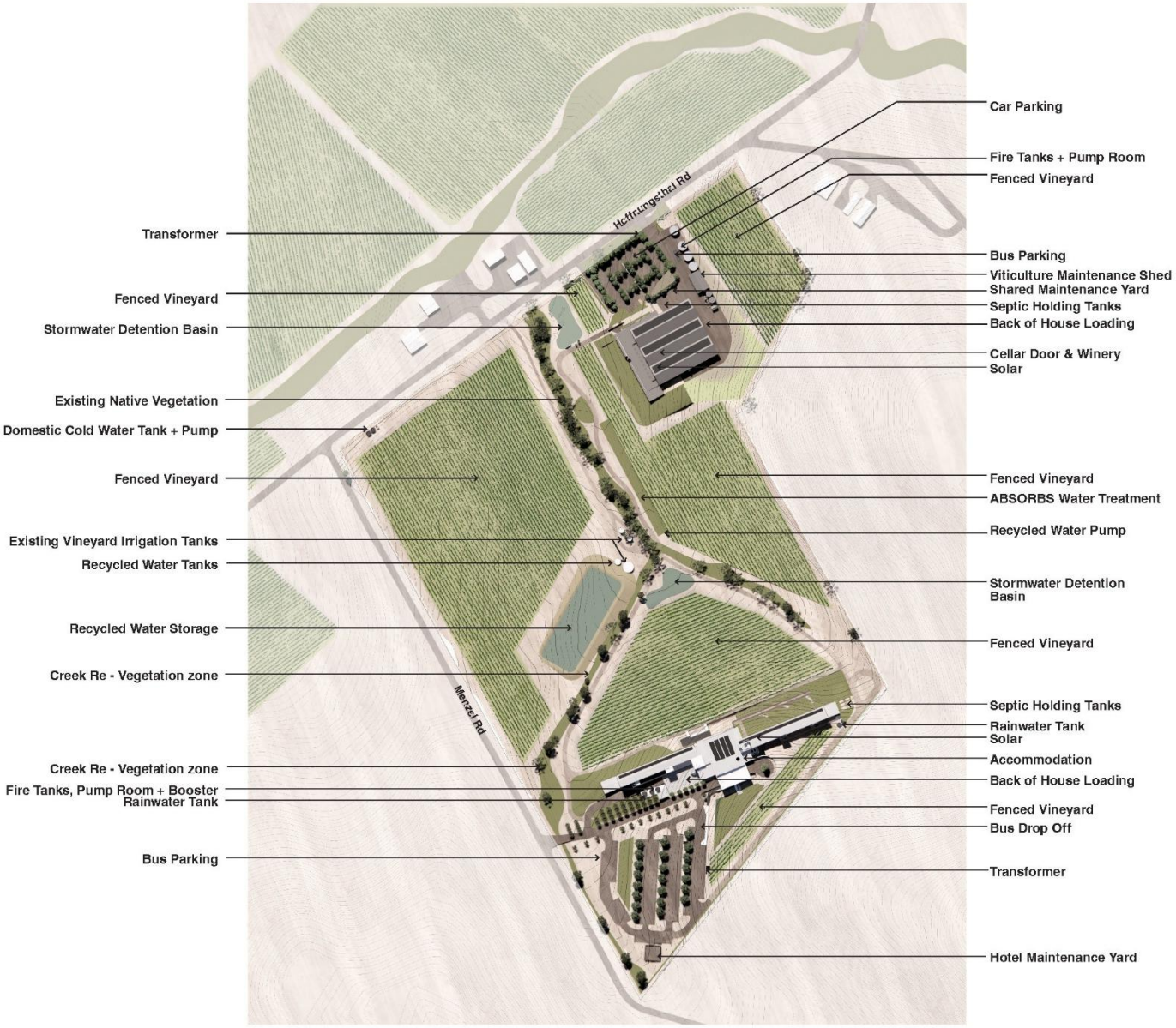


Figure 10 – Site Layout

9 Factors Contributing to Bushfire Risk

9.1 Site Factors

Existing land uses, current human and operational activities (including external factors) already pose risks and contribute to the potential impacts of bushfires.

The implementation of effective mitigation strategies will depend on the design of suitable management practices, response procedures, and clear communication between owners, their management and staff, and guests, particularly during the fire season.

Increased human activity often has the most potential to increase ignition likelihood, primarily by increasing the possibility of accidental ignition in these areas. This is especially true when fuel loads are extreme due to seasonal agricultural practices, such as cropping grasslands, and uncommon weather patterns causing unseasonably high fuel loads.

The following bushfire-related hazards and potential ignition sources have been identified:

- Accidental ignition (mechanical/equipment failure, farming or grounds activities, vehicle accidents, smoking, grinding, welding, lightning)
- Deliberate ignition (arson).
- Restricted or congested access and egress to safe areas
- Bushfires surrounding the sites.
- Extreme fire behaviour.
- Possible increased fire behaviour from the interaction of the varying slopes and grassland fuels, which are easily affected by wind changes.
- Embers landing on the site.
- Inability to safely leave the property in the event of a bushfire or other emergency.
- Long unburnt vegetation with elevated levels of bushfire fuel.
- Extreme fuel loads are associated with surrounding grassland areas, where fuel hazard can exceed 4.5 tonnes per hectare (t/ha).
- Vehicles driving through flammable vegetation.
- Increasing volume of human activity and vehicles accessing the areas.
- Construction incidents.
- Storage and use of flammable fuels and materials.
- Lack of sufficient water storage or access to designated fire water.

9.2 Surrounding Land Bushfire Risk Factors

The land adjacent to the property includes:

North -Hoffnungsthal Road bounds the property at Lot 102 to the north. It runs southeast until it intersects with Lyndoch Valley Road, then runs northwest for a short time before becoming a no-through road that leads to private properties opposite the client's property. The surrounding area to the north is a mix of agricultural and viticultural land, with numerous vineyards that run parallel to the road. Approximately 600m to the northwest, upslope from the development, is Barossa Helicopters.

East – the neighbouring property is a lavender farm, adjacent to the eastern boundary. Continuing east, the majority of the properties are farmland for cropping or livestock, becoming increasingly less populated as the transition to areas of the Mid Murray Council is made.

South – to the immediate south of the site is further farmland, characteristic of the area. Both Lindner and Menzel Roads run south off from Hoffnungstal Road, but neither adjoins major roads to the south of the property. Southwest of the site is the Williamstown township, more developed residential areas, and the location of a SACFS Bushfire Safer Place for the surrounding residents and communities.

West –the general western exposure of the site, beyond the cultivated vines and grazed paddocks, is primarily to the townships of Lyndoch and Williamstown, joined by the state-maintained Lyndoch Valley Road, and to the more northwest, where bushfires will typically originate in southeast Australia, is the small locality of Cockatoo Valley. The Barossa Valley Way continues further east to a more densely populated Gawler. The Para Wirra Conservation Park is located southwest, approximately 6 km from the development. Its location to the southwest can contribute to a higher risk to the property, due to the bushfire behaviours described in Section 8.5 of this document. However, along this corridor, as well as commercial farmland and operational vineyards, are areas that are outskirt the city, where the density of people and infrastructure is much more inhibitive to wildfire spread, with natural vegetation separation and cultivated gardens that are low-threat vegetation due to their high moisture content and maintenance schedules.

9.3 Fire Weather and Environment

The climate in South Australia is characterised by mild winters followed by hot and dry summers. Summers are mild to warm with average temperatures generally below 30°C. On rare occasions, a severe blast of heat from the deserts to the north can cause days of temperatures close to 40 °C.

The South Australian fire season typically occurs between the end of October and the start of May.

High temperatures, hot, dry northerly winds, and sudden changes to wind direction due to a cool change provide the most significant fire weather risk.

Fire weather forecasts (provided by BOM) are provided for the Mount Lofty Ranges District. This area is bounded in the north by Gawler to Nuriootpa and wraps around the Adelaide metropolitan area, from Munno Para to Port Willunga. It spans north to south, encompassing the majority of the Adelaide Hills suburbs, from Mount Pleasant to Callington, Strathalbyn to Goolwa. The district then spans the entire south of the Fleurieu, with the southeasternmost point being the Lawari Conservation Park, where the Upper South East and Murrayland Districts meet. Weather patterns and conditions across this area can vary significantly, and conditions on the coast are often milder than those further inland.

The predominant wind direction in South Australia is west to southwest throughout the year and north to northwest during summer. Wind is highly variable and can be influenced by a wide range of factors, including pressure patterns, time of day, and surrounding terrain.

Extreme bushfire weather is associated with wind from the north and northwest. The northerly winds (often accompanied by High temperatures, increasing wind speed, and decreasing relative humidity) generally precede a southerly, south-westerly change.

These high temperatures, hot, dry northerly winds, and sudden changes in wind direction can significantly increase a bushfire's spread rate and provide the greatest potential for bushfire impact.

Statistics	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	Years		Plot	Map
Temperature																	
Mean maximum temperature (°C)	29.9	29.1	26.3	22.0	17.8	14.8	14.1	15.4	17.5	20.6	24.5	27.3	21.6	27	1998 2025		
Mean minimum temperature (°C)	11.8	11.7	10.2	8.2	7.1	5.6	5.3	5.6	6.5	7.0	8.7	10.2	8.2	27	1998 2025		
Rainfall																	
Mean rainfall (mm)	21.7	18.2	22.6	27.3	41.7	57.5	60.2	68.1	50.9	39.3	38.4	35.4	481.1	27	1998 2025		
Decile 5 (median) rainfall (mm)	12.6	15.8	16.8	19.9	43.0	53.0	60.8	70.8	46.8	36.0	36.4	25.6		27	n/a n/a		
Mean number of days of rain ≥ 1 mm	2.4	2.4	3.8	5.3	9.0	9.5	11.9	11.9	9.3	7.3	5.4	4.8	83.0	26	1998 2025		
Other daily elements																	
Mean daily sunshine (hours)																	
Mean number of clear days																	
Mean number of cloudy days																	
9 am conditions																	
Mean 9am temperature (°C)	19.5	18.9	16.0	14.9	11.7	9.1	8.6	9.9	12.6	14.6	16.6	18.5	14.2	12	1998 2010		
Mean 9am relative humidity (%)	59	64	73	70	82	86	85	81	74	67	64	57	72	12	1998 2010		
Mean 9am wind speed (km/h)	20.3	18.9	15.7	15.8	14.2	15.4	15.6	17.7	21.1	20.8	19.3	20.7	18.0	12	1998 2010		
9am wind speed vs direction plot																	
3 pm conditions																	
Mean 3pm temperature (°C)	27.7	27.5	24.7	20.7	16.6	13.8	12.9	14.0	16.0	18.5	23.1	25.1	20.0	12	1998 2010		
Mean 3pm relative humidity (%)	32	34	38	45	60	67	69	64	61	52	42	35	50	12	1998 2010		
Mean 3pm wind speed (km/h)	22.7	22.7	21.6	20.6	19.5	20.3	20.5	23.0	25.1	24.5	22.4	24.5	22.3	12	1998 2010		
3pm wind speed vs direction plot																	

red = highest value blue = lowest value

Figure 11 - Mean Climate Data for Mount Crawford Weather Station

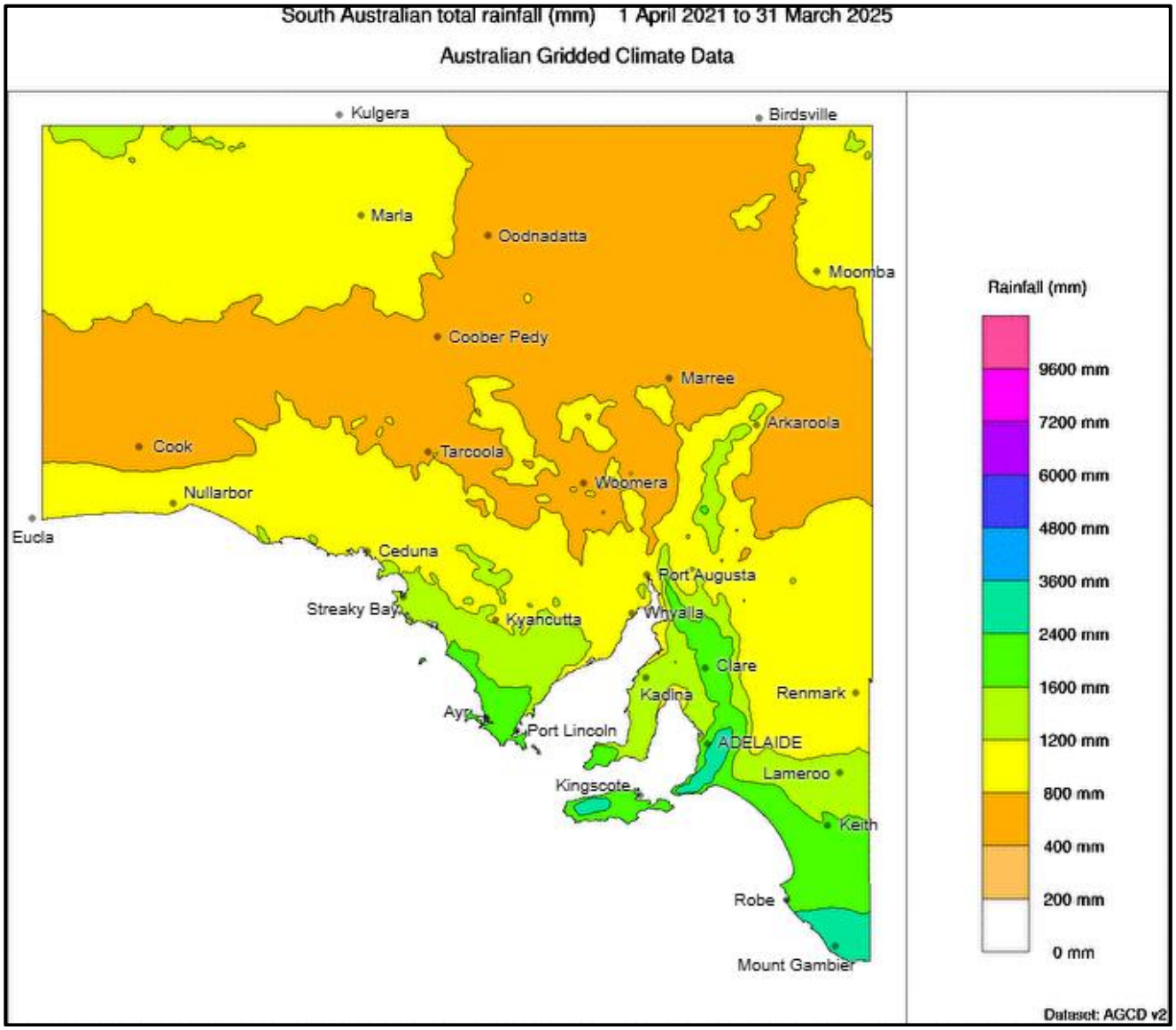


Figure 12 - Rainfall Data for South Australia

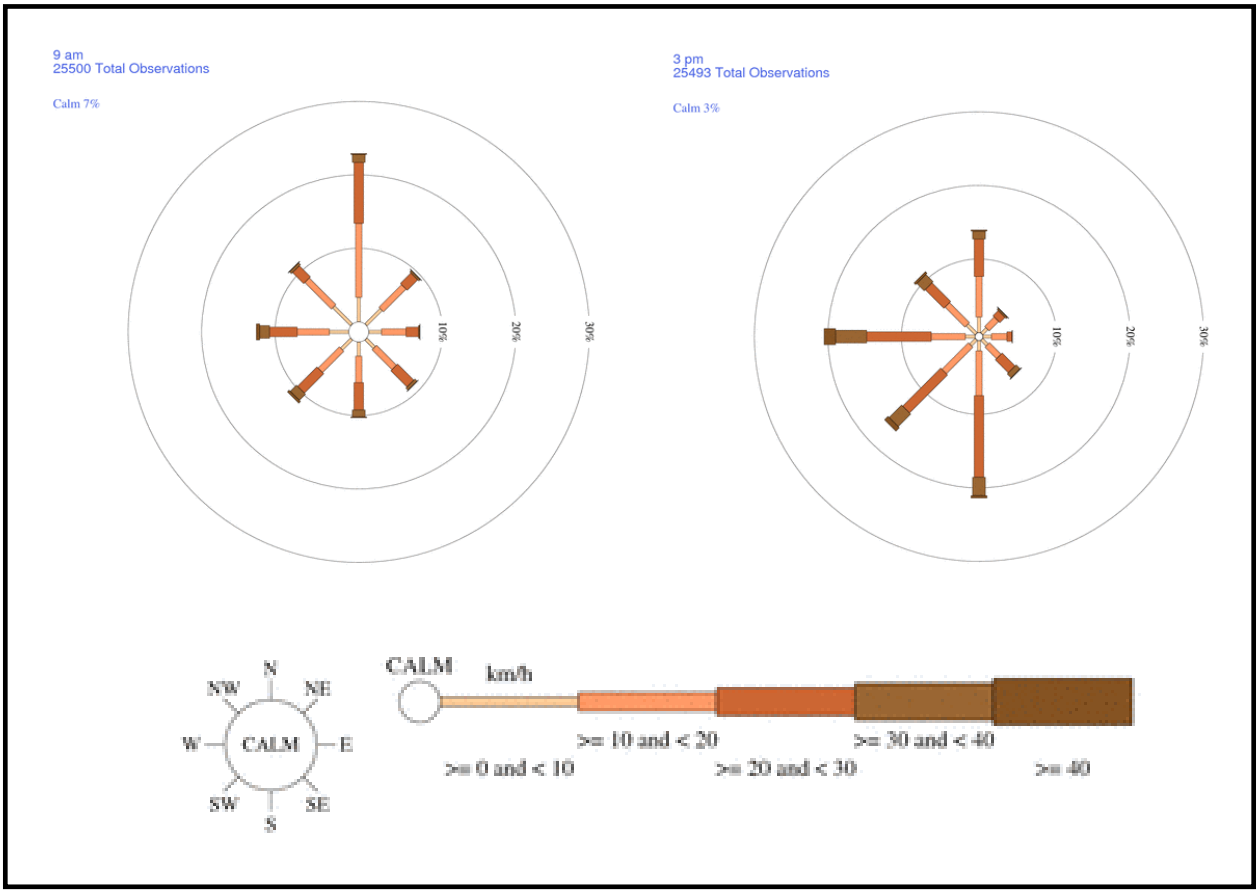


Figure 13 - Rose of Wind direction versus Wind speed in km/h at 9am & 3pm

9.4 Topography

The state of SA is of generally low relief, with approximately 50 per cent being less than 150 m above sea level, and 80 per cent being less than 300 m. The Mount Lofty–Flinders Range system is the most notable mountain range in South Australia, extending 800 km from Cape Jervis in the south to Lake Torrens in the north, but nowhere does the range exceed 1,200 m.

Topography can influence fire behaviour and potential fire spread; fire will burn faster uphill, especially when pushed by prevailing winds. Aspect can play an important part in fire behaviour, with Southern and Eastern aspects tending to be cooler with more vegetation than the Northern and Western aspects, which are drier with less vegetation.

The topography surrounding the property is described as flat and slightly undulating in places, with average slopes less than three (3) degrees (refer to Figure 15).

9.5 Vegetation

The vegetation for the site consists mainly of vineyards and grassland, which are managed to low fuel levels through grazing and slashing. It is interspersed with occasional trees and shrubs in an open structure. Landscapes such as this present a mix of fire hazards due to their combination of open grassland and scattered woodland vegetation.

A creek line runs through the property and occupies most of the denser woodland and scrub vegetation. These riparian zones can act as natural firebreaks but may also harbour flammable undergrowth if not well maintained.

Overall, the mix of open grassland and scattered woody vegetation, combined with the presence of the creek line, highlights the importance of targeted fuel management and monitoring in this area to reduce bushfire risk.

This combined fuel hazard suggests a landscape that could be vulnerable to fast (wind-driven) grassfires, particularly during dry or windy conditions.

Grass fires are likely to spread rapidly, though they typically burn at lower intensity and can often be extinguished quickly. However, the presence of trees, shrubs, and leaf litter introduces the potential for slower-moving but more intense woodland fires. These fires can generate significant radiant heat and, under extreme conditions, even create their own weather, making them more dangerous and harder to control.

9.1 Adjacent Land Use

The site is predominantly surrounded by agricultural lands used for viticulture, broadacre farming, and grazing livestock. Residential areas, urban economies, and other enterprises are in the townships and cities nearby, such as Nuriootpa and Gawler, the largest of the major towns in the Barossa Region.

Smaller populated townships, such as Tanunda, Roseworthy, and Angaston, are frequently found throughout the Barossa region, with tourism being a key industry in the area. Barossa wineries are among the most renowned in Australia.

9.2 Assets and Infrastructure

The current infrastructure on the property includes grassland paddocks, Vineyards (both operational and non-operational), access tracks, and old water tanks. Significant infrastructure on properties surrounding the Project Area includes machinery sheds, existing farms, wineries, and other agricultural assets. There are also existing dwellings on adjacent properties, presumably inhabited by landowners. It is unknown whether any existing structures have been designed to adhere to the current Australian Standard, Construction of buildings in bushfire-prone areas AS 3959:2018, and the Government of South Australia Ministerial Building Standard MBS 008, Designated bushfire-prone areas, additional requirements, or if adequate Asset Protection Zones have been established under the Australian Standard.

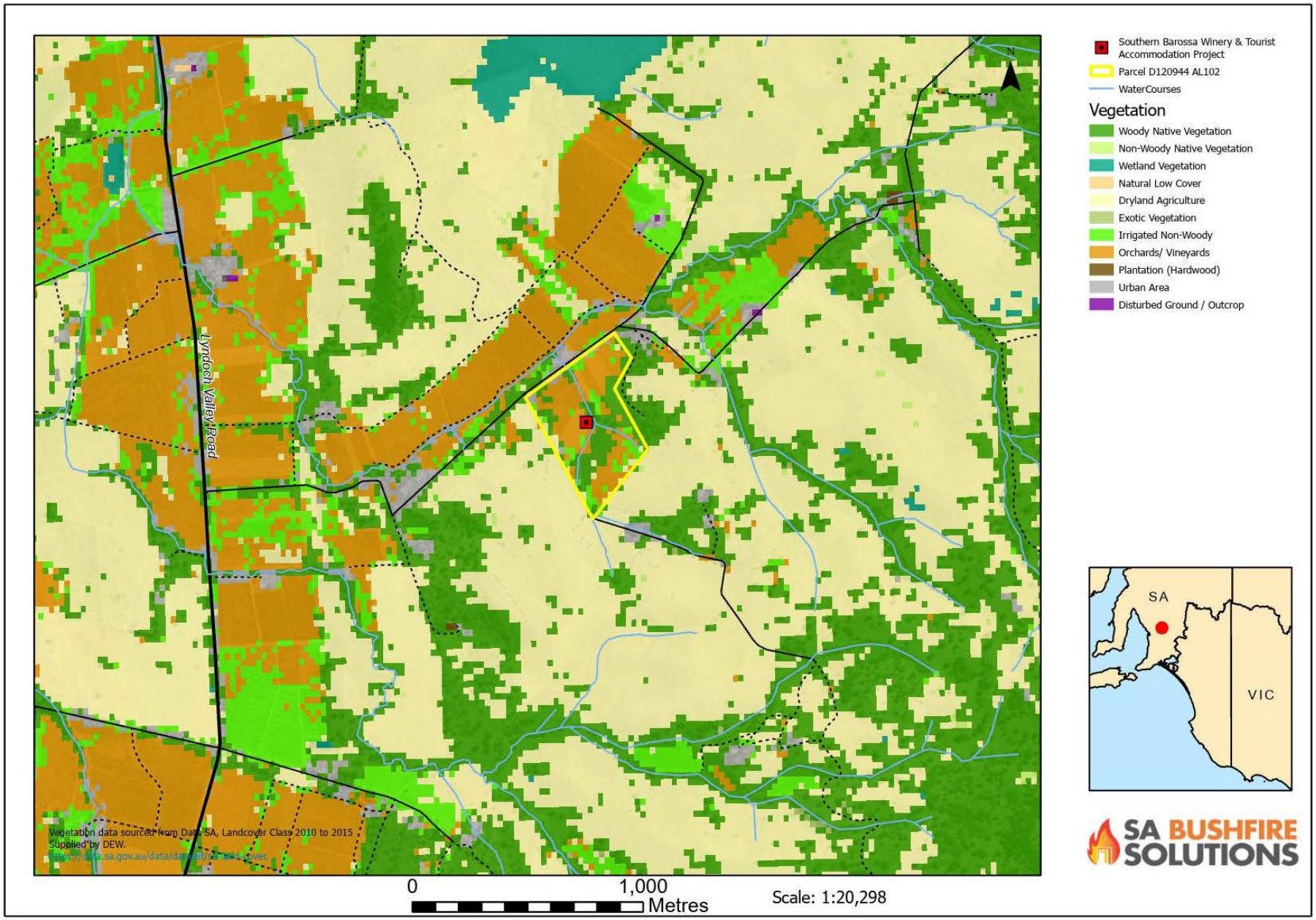
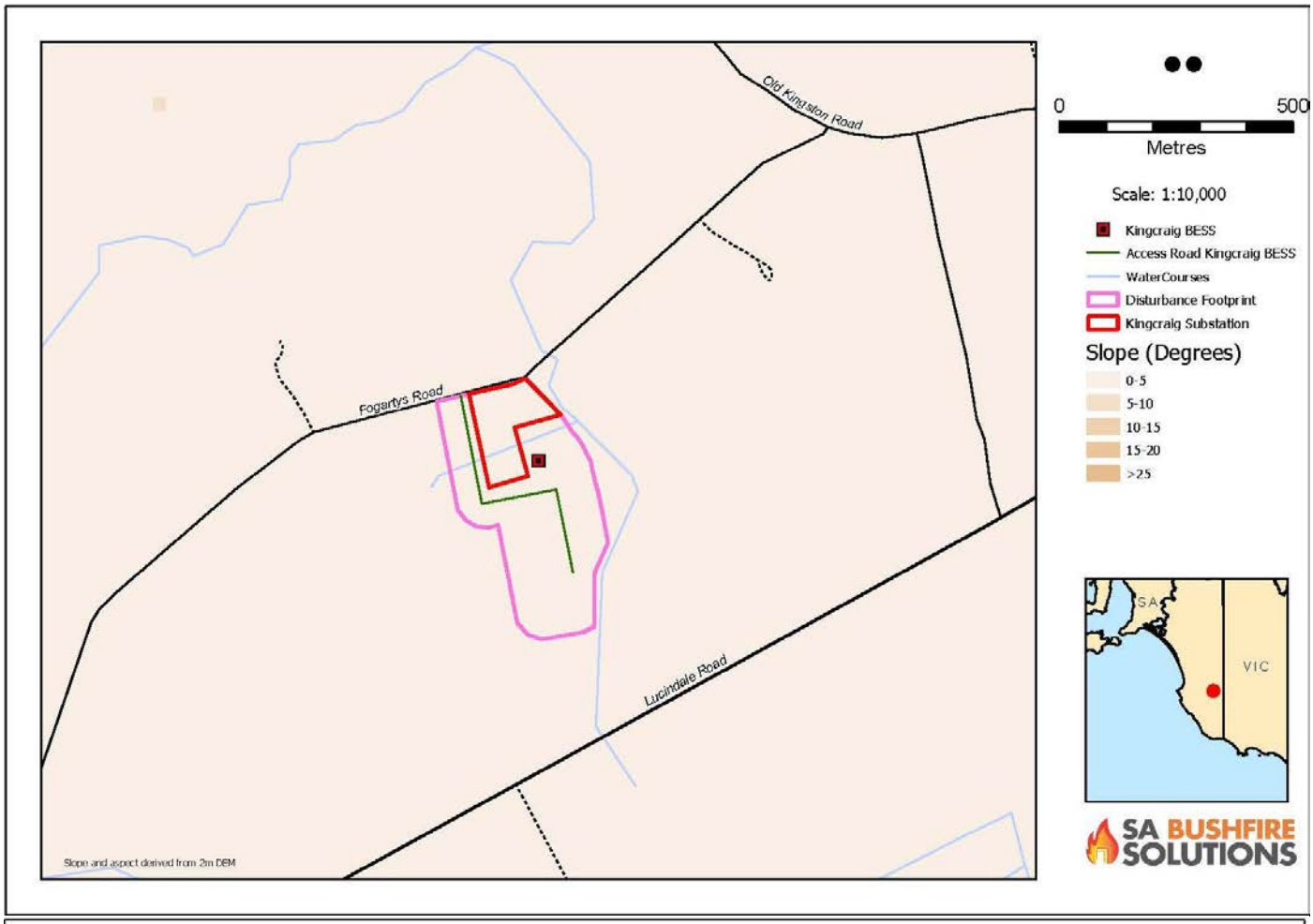


Figure 14 - Adjacent vegetation



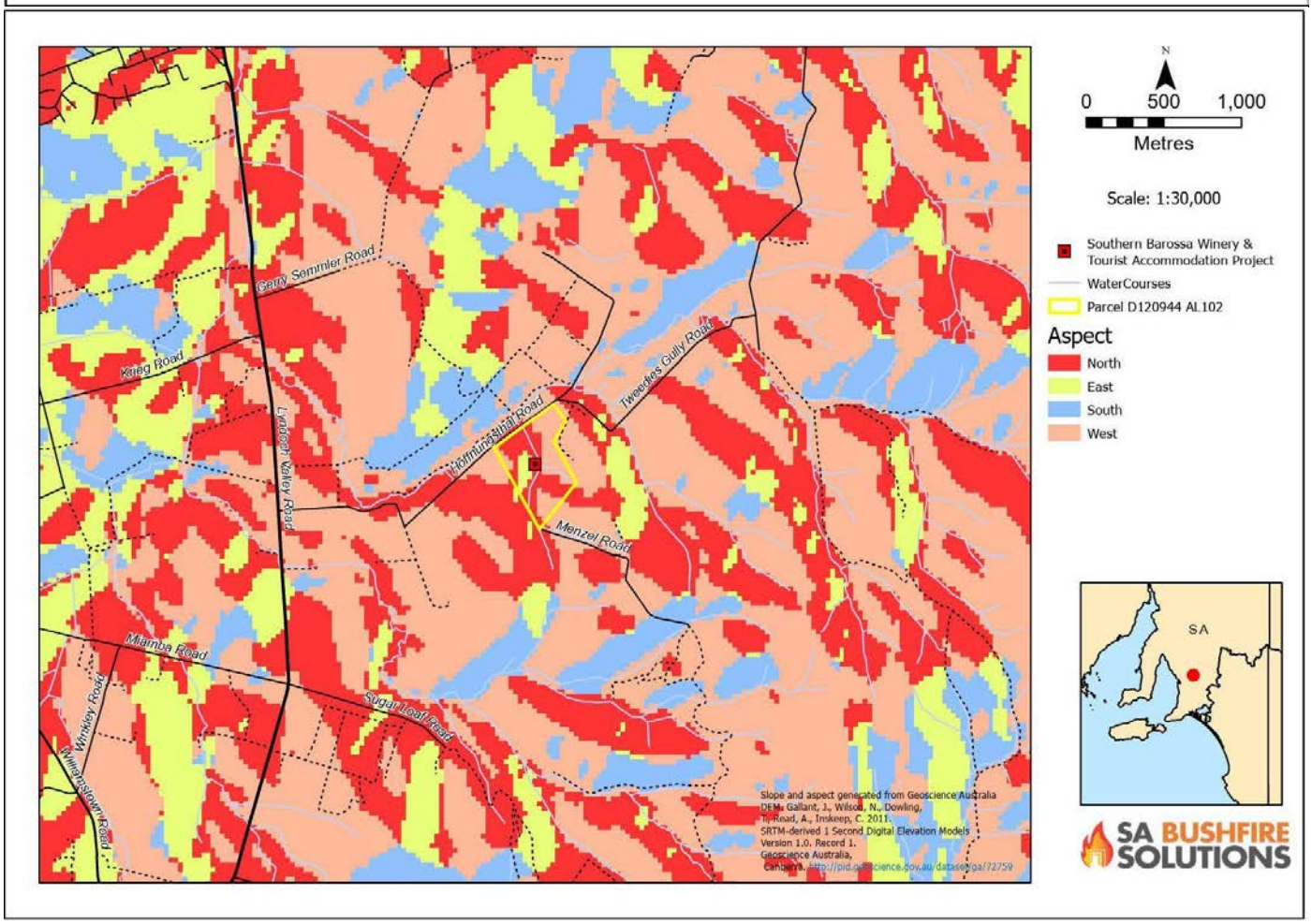


Figure 15 – Slope and Aspect

9.3 Access and Egress

The ability to move around the site quickly and safely is important for emergency services during bushfire suppression operations and for the efficient movement of vehicles and personnel during evacuation procedures.

Built infrastructure, such as roads and tracks, can increase the speed of fire response, allowing firefighters to suppress a fire safely and effectively before it reaches its maximum intensity and flame height, posing a danger to life, property, and infrastructure. Access to dedicated fire water, including mains water and water stored in tanks, is critical.

Consideration for access and egress must include.

- Suitability for heavy (Emergency) vehicles all year round
- Access during potential congestion periods
- Ability to turn around.
- Access to water
- Secondary escape route
- Driveway length
- Access to 4WD-only roads or fire tracks.
- Access through fenced or gated private properties.

A good road and track network can:

- improve bushfire response times, which increases the likelihood of bushfires being suppressed in minimal time and to a minimal area.
- Improve firefighter safety by providing a safer platform from which firefighters can prepare for and fight bushfires.
- provide greater protection for assets.
- improve the speed of evacuation of the area, if required.
- create fire breaks to aid in bushfire mitigation and suppression.

Access and egress for emergency vehicles and personnel evacuation is adequate for the site in its current state. Additional design and construction requirements are addressed in the site plan.

The attributes considered in the design for access/egress meet the requirements outlined in The Code.

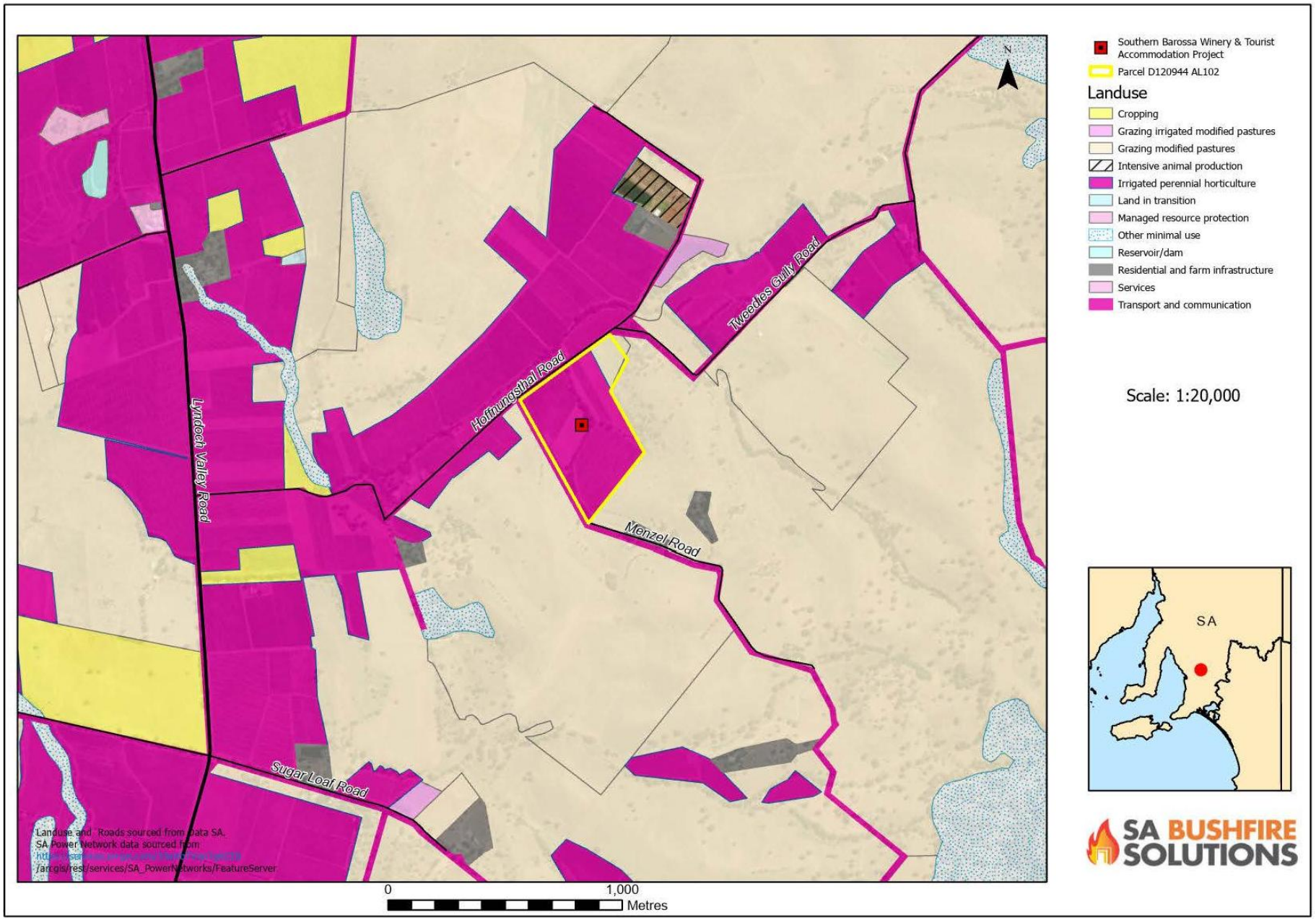


Figure 16 - Adjacent Land Use

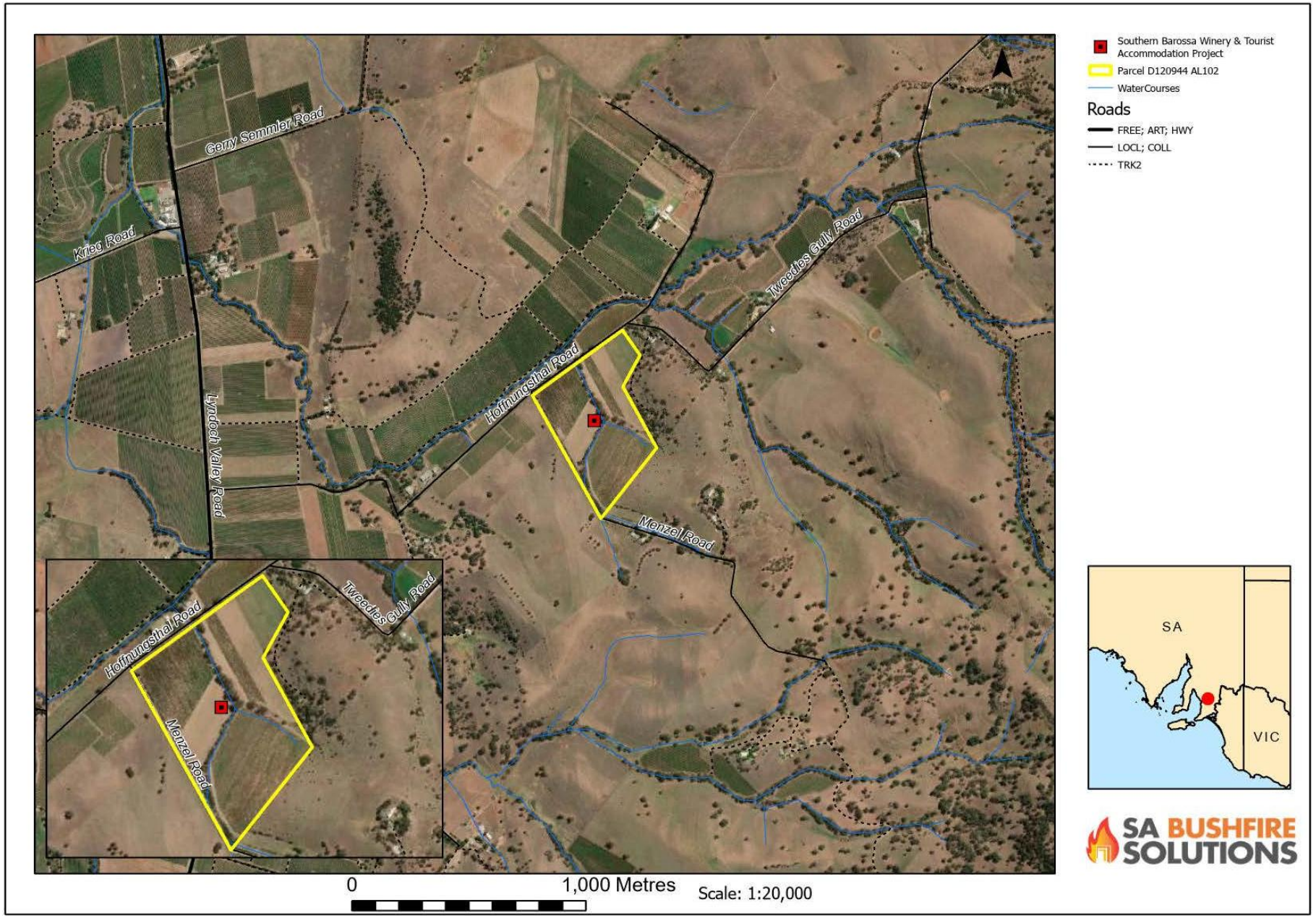


Figure 17 - Adjacent Public Roads (1:20000 scale)

Figure 18 - Adjacent Public Roads (1:5000 scale)

9.4 Bushfire history Since 1931

South Australia has experienced numerous devastating bushfires due to the hot, dry conditions that characterise its summers. Bushfire events often occur from October through to May, but historically, the most devastating have occurred in January and February.

The analysis of previous fires indicates the path of the fires, locations of higher risk, and the state of the area's recovery post-fire. The bushfire history for the Mount Lofty Region is illustrated in Figure 19. Further information on Bushfire History can be found via interactive maps on the DEW website.

Historical bushfire data shows no recent bushfire data on the property itself. However, the 2015 Pinery Fire affected the surrounding areas. The bushfire, one of Australia's largest on record, burned at least 86,000ha over a week throughout the Barossa and Lower Mid-North. Causing catastrophic damage to the community.

Although the immediate surrounding areas have experienced minimal historical bushfire activity, except for the Pinery Fire, there have likely been fires on surrounding properties that have not been recorded in government or agency databases.

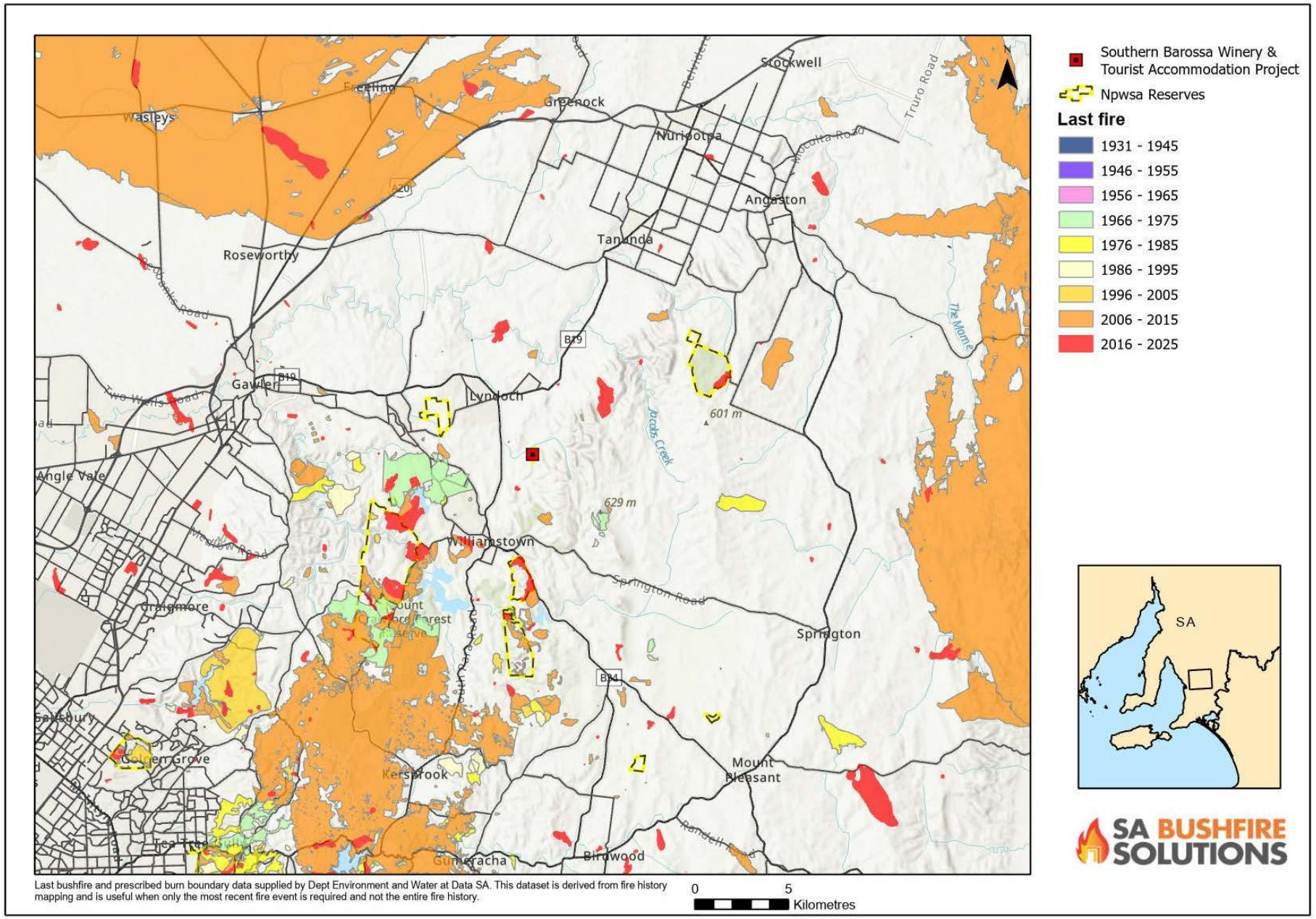


Figure 19 - Fire history map of the Mount Lofty & Mid North Regions since 1931.

10 Bushfire Risk Assessment Overview

The bushfire risk assessment aims to assist Southern Barossa Winery & Tourist Accommodation Project developers, owners, and consultants involved in this development in understanding the factors that contribute to potential bushfire risks in the area. This will allow for an informed assessment of the impacts on the overall EIS.

The objectives are to provide recommendations to mitigate bushfire risk, ensuring clients achieve the priorities of protecting life, property, and the environment, while informing project teams on infrastructure and asset development requirements within the Hazard Overlays.

While bushfires are a significant risk facing South Australia, they are also a natural part of the environment, and many plant species rely on fire to regenerate. A variety of causes can ignite a bushfire; some bushfires result from natural events, such as lightning, while others may result from human activity and negligence.

The bushfire risk assessment must also consider whether the proposed operational activities, policies, and procedures, as well as the recommended mitigation strategies, are likely to increase the existing risk of a bushfire or hinder any bushfire suppression operations carried out by the combating authorities.

The detailed bushfire risk assessment is a function of the likelihood of an adverse event occurring and its consequences. It involves identifying, analysing, evaluating, and treating the identified risks.

The overall risk assessment process requires a consistent approach. The methodology developed is based on AS/NZS ISO 31000:2009, which was incorporated into the National Emergency Risk Assessment Guidelines (NERAG).

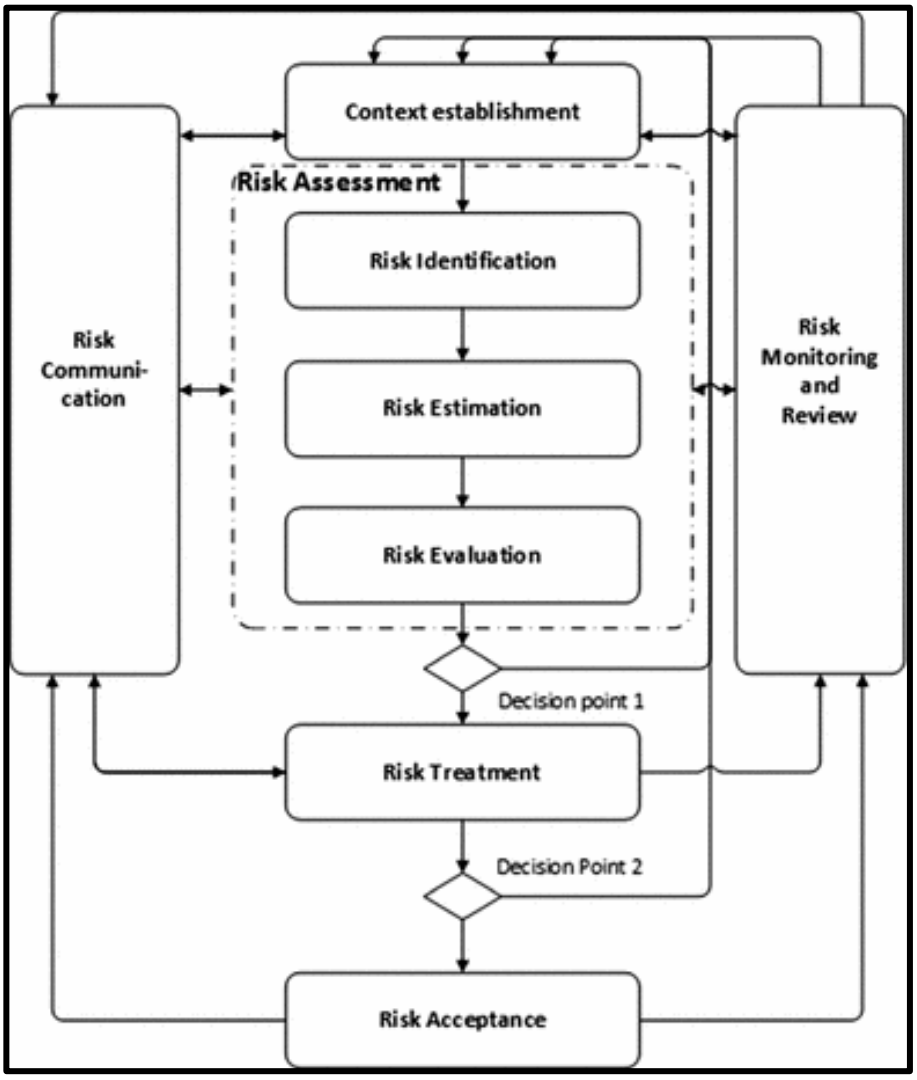


Figure 20 - Overview of AS/NZS ISO 31000-2009 process

10.1 Bushfire Likelihood

An assessment of the likelihood of a bushfire impacting assets considers factors such as the

- Potential for an unplanned fire to occur.
- Potential for this ignition to develop and exhibit significant fire behaviour.
- Potential for that fire to destroy assets.
- Potential for it to develop into a major fire.

Numerous approaches may determine recommendations for bushfire mitigation actions depending on the level of assessed risk. Strategies to lower bushfire risk are provided to ensure the risk from a bushfire is managed to an acceptable level. Once implemented, the mitigation measures will reduce the likelihood of a bushfire igniting and spreading through the broader landscape.

A likelihood scale refers to the potential for an unplanned fire to begin in the area and spread to adjoining properties.

An assessment of likelihood considers factors such as:

- Sources of ignition
- Usage
- History of ignitions
- Ability to spread through the area.

Likelihood scale frequency	Likelihood of a fire
Very Likely	Almost certain: will definitely occur, and/or a high level of recorded incidents; or there is a strong likelihood that the event will occur
Likely	High probability it may occur, and/or some recorded incidents
Unlikely	It is not expected to occur, but it is not impossible.

Table 7 - Bushfire Likelihood Assessment Table

10.2 Bushfire Consequence

Consequence refers to the potential severity of the damage that could result from a bushfire occurring in a specific area, particularly in proximity to people, infrastructure, and assets. In assessing the possible consequences, the assessment considers a variety of hazard, exposure and vulnerability factors including:

- Number of surrounding properties.
- Proximity of assets and infrastructure.
- The fuel levels present across the site.
- The level of access/egress for suppression actions or evacuation should a fire occur.

Impact scale consequence	Impact
Major	Significant consequences – major damage or effect. Loss of life and/or property. Significant injuries, hospitalisations, and many displaced persons. Major impact on water quality and supply.
Moderate	Moderate loss of property (i.e. damage to fences), some medical treatment, but no fatalities. Localised damage that can easily be rectified. Some impact on the environment with short-term to long-term effects.
Minor	Minor or negligible consequences or effects. No damage to property or persons. Small The impact on the environment is minimal, with no lasting effects.

Table 8 - Bushfire Consequence Assessment Table

10.3 Risk Rating Table

The risk rating table combines likelihood and consequence to obtain a risk score. The risk score aids decision-making by identifying areas with the most significant risk and potential implications from bushfires.

The risk assessment outcomes inform the recommendations that will guide management in reducing the bushfire risk to the site operations or any future development, thus providing an analysis of potential environmental impacts.

Risk ratings provide information about the values that may be at risk from bushfires (life, property, and the environment), the likelihood that bushfires may impact these values, and the consequences of bushfires' impact on these values.

In the site context, management will always need to balance bushfire risks with other values. However, in the broader context, the direction to appropriately respond to and manage bushfire risk is enshrined in legislation and informed by bushfire royal commissions and inquiries.

The risk rating in this report may help management better understand its bushfire risk and prioritise treatments based on the risk rating level.

For example, reducing the available bushfire fuel reduces the overall fuel hazard and lowers the potential flame height and intensity of a bushfire. This activity is likely to reduce the potential bushfire impact on the property, increase the effectiveness of suppression measures for firefighters, and provide a safer evacuation process for staff, guests, and any visitors present.

RISK RATING TABLE			
LIKELIHOOD	CONSEQUENCE		
	Minor Minor or negligible consequences or effects. No damage to property or persons. Small impact on environment with no lasting effects.	**Moderate** Moderate loss of property, some medical treatment but no fatalities. Localised damage that can easily be rectified. Some impact on the environment with short to long-term effects	**Major** Significant consequences – major damage or effect. Loss of life and/or property. Significant injuries, hospitalisations, large number of displaced persons.
Very Likely: will definitely occur, and /or high level of recorded incidents; or there is a strong likelihood that the event will occur	Medium	Very High	Extreme
Likely: High probability it may occur; and/or some recorded incidents	Medium	High	Very High
Unlikely: It is not expected to occur, but it is not impossible	Low	Medium	High

Table 9 - Risk Rating Assessment Table

10.4 Qualitative Bushfire Risk Assessment

Risk to:	Potential	Likelihood	Justification	Consequence	Risk Rating	Mitigation Strategies (Controls)	Revised Likelihood	Revised Consequence	Residual Rating
LIFE & PROPERTY/ ENVIRONMENT									
Any on-site staff, contractors, guests or visitors present. Assets and critical infrastructure (Including substations, public roads, equipment and machinery) Fire agencies and emergency services. General public. Habitable buildings and other rural property assets. The general public, the broader landscape, and the surrounding community.	A large, high-intensity landscape bushfire in the surrounding landscape, causing: • Impact/destruction of critical assets, infrastructure, and dwellings. • Loss of life and livelihood. • Disruption to community connectivity, economy, and daily activities. • Environmental impacts • Mechanical failure/catastrophic loss of assets. Accidental ignition from lightning, or fires from adjacent properties, motor vehicle use/accidents. Ignition by accidental means (battery/fuel/flammables storage, ignorant actions, e.g., smoking, fire.	Likely	• Bushfire-prone areas. • Multiple personnel, landowners, visitors, and contractors may be on site. • Multiple road users may cause congestion on private roads/fire tracks. • Unknown Bushfire Attack Level (BAL) rating and building construction for the existing buildings on properties. • No identified shelter-in-place options at the site. • Potential miscommunication of bushfire risks and response to any personnel on site due to remote area/work. • Unknown BEMP and inadequate information and detail in existing policies and procedures. • Access to some sites is restricted due to single-entry points, locked	Major	Very High	• Draft a Bushfire Emergency Plan that includes the emergency control organisation's roles & responsibilities for managing and responding to bushfire risk. • Determine Primary and Secondary Response Actions and incorporate them into a Bushfire Emergency Plan • Provide suitable buildings on site to be used as a nominated Shelter-in-Place. • Establish “Inner” and “Outer” Vegetation Management Zones around development infrastructure. • All new buildings and structures to comply with ministerial standards for building in bushfire-prone areas and be built to a nominal BAL. • Manage overall fuel hazards to achieve the designated suitable	Likely	Moderate	High

	Ignition started by hot works and general operations, vehicle components contacting vegetation while driving off-road. Deliberate ignition from arson. Potential loss of life/injury from entrapment in an open environment, entrapment in infrastructure, including dwellings, entrapment on roads and adjacent sites. Incomplete/unpractised bushfire action plan.		gates, narrow access tracks, and topography. • Habitable dwellings and rural properties are close to assets, making them susceptible to impacts from radiant heat, direct flame contact, and ember attack. • Lapses in vegetation management to reduce overall fuel hazards on most properties. • Proximity of critical infrastructure and adjacent dwellings to vegetation. • In the event of an intense bushfire (including smoky conditions), people's sense of direction could be affected, leading to panic and confusion. • Power, water, and mobile phone reception could be affected during bushfires and alerts, and warnings may not be received. • Sites may contain and store dangerous goods, including combustible and flammable materials, liquids, propellants, lubricants, oils, batteries, tyres, etc.			Bushfire Attack Level (BAL) • Provide site-specific information (induction) to all staff, guests, contractors, and other personnel. • Consider a "site closed" policy on declared days of Catastrophic Fire Danger. • Staff have access to and attend required training commensurate with their roles and responsibilities, and exposure to bushfire risks. • Maintain accurate records of all staff training. • Ensure all fire equipment, including hoses and fittings, complies with CFS standards. • Collaboration with Control Agencies, including planning, bushfire response, community engagement & education. • Develop a business continuity plan. • Undertake annual Bushfire Audit (refer to 'BMOS')			

			• Distance, time, and access options for travelling back to the nominated Bushfire Safer Place or Place of Last Resort refuge. • Other incidents may overwhelm firefighting agencies and their ability to respond. • Fire behaviour could be unpredictable and may entrap firefighters, landowners, and the greater community. • Access in some locations is through private property, which may lead to confusion/access issues. • Seasonal cropping resulting in extreme grassland fuel loads. • People may not always be with their vehicles and may be some time away from Safer Places. • Mobile phone reception is not always guaranteed, and alerts and warnings may not be received.			• Ensure all vehicle access tracks are all-weather and maintained to the standards in The Code. • Ensure alternate access and egress options that offer different routes to Safer Places or Places of Last Resort. • Provide clear maps in each dwelling of routes to evacuation points/shelter-in-place areas. • Review flammables transport & storage policies. • Ensure all fire water is compliant with The Code. • Consider early fire/smoke detection systems (in-built fire protection systems, remote alarm and notification systems) for the Chief Bushfire Officer to report potential bushfire risks from mechanical or electrical failures.			

11 Summary of recommendations

- Draft a Bushfire Emergency Management Plan that includes the Emergency Control Organisation's roles and responsibilities in managing and responding to Bushfire risk.
- Determine Primary and Secondary Response Actions and incorporate them into a Bushfire Emergency Plan
- Provide suitable buildings on site to be used as a nominated Shelter-in-Place.
- Establish “Inner” and “Outer” Vegetation Management Zones around all dwellings, assets and infrastructure.
- All new buildings and structures are to comply with ministerial standards for construction in bushfire-prone areas and be built to a nominal BAL.
- Manage overall fuel hazards to achieve the designated suitable Bushfire Attack Level (BAL)
- Provide site-specific information (induction) to all staff, guests, contractors, and any other onsite personnel.
- Consider a “site closed” policy on declared Catastrophic Fire Danger Days.
- Staff have access to and attend required training commensurate with their role and responsibilities, as well as exposure to bushfire risks.
- Maintain accurate records of all staff training.
- Ensure all fire equipment, including hoses and fittings, complies with SACFS standards.
- Collaboration with control agencies, including planning, bushfire response, community engagement and education.
- Develop a business continuity plan.
- Undertake annual Bushfire Audit (refer to’ BMOS’)
- Ensure all vehicle access tracks are all-weather and maintained to the standards in The Code.
- Ensure alternate access and egress options that offer different routes to Safer Places or Places of Last Resort.
- Provide clear maps of routes to evacuation points/shelter-in-place areas in each dwelling.
- Review flammables storage and transport policies.
- Ensure all fire water is compliant with The Code.
- Consider early fire/smoke detection systems, in-built fire protection systems, remote alarm and notification systems to report potential bushfire risks from accidental and environmental sources.

12 Appendices

12.1 Appendix 1 - Bushfire Mitigation Operational Schedule (BMOS Example)

ANNUAL BUSHFIRE MITIGATION OPERATIONAL SCHEDULE						
Location:	**Date:**				**Approved by:**	
Mitigation Task	**Annual timing**	**Date Completed**	**Task ID**	**Responsible Owner**	**Comments/Task Completed?**	
Vegetation Management						
Vegetation Management Zone works around high-risk areas and buildings to achieve the approved Bushfire Attack Level (BAL) as per AS3959-2018.	Sep-Dec		1			☐
Vegetation adjacent to all access tracks is cleared to minimise encroachment.	Sep-Dec		2			☐
Grass areas remaining irrigated and maintained	Sep-Dec		3			☐
Site preparation for fire danger season includes general ground maintenance, such as mowing grass, removing dead vegetation, clearing leaf litter, and mitigating vegetation encroachment on buildings.	Sep-Dec		4			☐
Health, Safety, and Welfare						
All staff are familiar with policies, procedures, and their responsibilities before, during and after a bushfire emergency.	Sep-Dec		5		Refer BEP	☐
Policy and Procedures						
Emergency Management Plan reviewed, updated, and approved.	Sep-Dec		6			☐
Bushfire Emergency Plan reviewed, updated, and approved.	Sep-Dec		7			☐
All staff, contractors, and guests are familiar with policies for closure on forecast High, Extreme and Catastrophic Fire Danger Days.	Sep-Dec		8			☐
Confirm a nominated Shelter-in-Place building (building names).	Sep-Dec		9			☐
Planning						
Daily fire danger rating is distributed and publicised across the site for staff, contractors, and visitors during the FDP.	Sep-Dec		10			☐
Training						
Staff completed training in Bushfire and Emergency Management as per their role and responsibilities.	Sep-Dec		11			☐

Staff attended the annual bushfire preparedness meeting and emergency response drill.	Sep-Dec		12			☐
Managers attended introductory Incident Management training.	Sep-Dec		13			☐
Designated staff involved in initial bushfire suppression operations are to receive the appropriate nationally accredited training.	Sep-Dec		14			☐
All staff have attended the Basic Wildfire Awareness (BWA) course.	Sep-Dec		15			☐
Plant and Equipment						
All bushfire-fighting equipment is tested, and fire water tanks are filled and operational. Fire extinguishers, fire hose reels, and hand tools are in good working condition.	Sep-Dec		16			☐
All bushfire fighting communications and warning systems are tested and operational, e.g., alarms, PA, radios, SMS groups, and other systems.	Sep-Dec		17			☐
Access and Egress						
Firefighting appliances have defined emergency access and egress areas, including turnaround areas.	Sep-Dec		18			☐
Inspect access roads and tracks (drainage, surface conditions and vegetation), identify and implement maintenance as required.	Sep-Dec		19			☐
Infrastructure						
Inspect gates to ensure that locks are in place and functioning properly.	Sep-Dec		20			☐
Clear gutters, roof surfaces/valleys, external decks, and verandas, to ensure they are free of leaf litter/dead plant material accumulation.	Sep-Dec		21			☐
External building components should be free of combustible materials and should be painted and sealed to prevent flammability. Window and external vent screens must be serviceable.	Sep-Dec		22			☐
Excessive amounts of flammable and combustible fuels/gases and other items removed from being located externally to buildings, e.g., gas bottles, paint, solvents, and chemicals.	Sep-Dec		23			☐

12.2 Appendix 2 - Closest Bushfire Safer Place

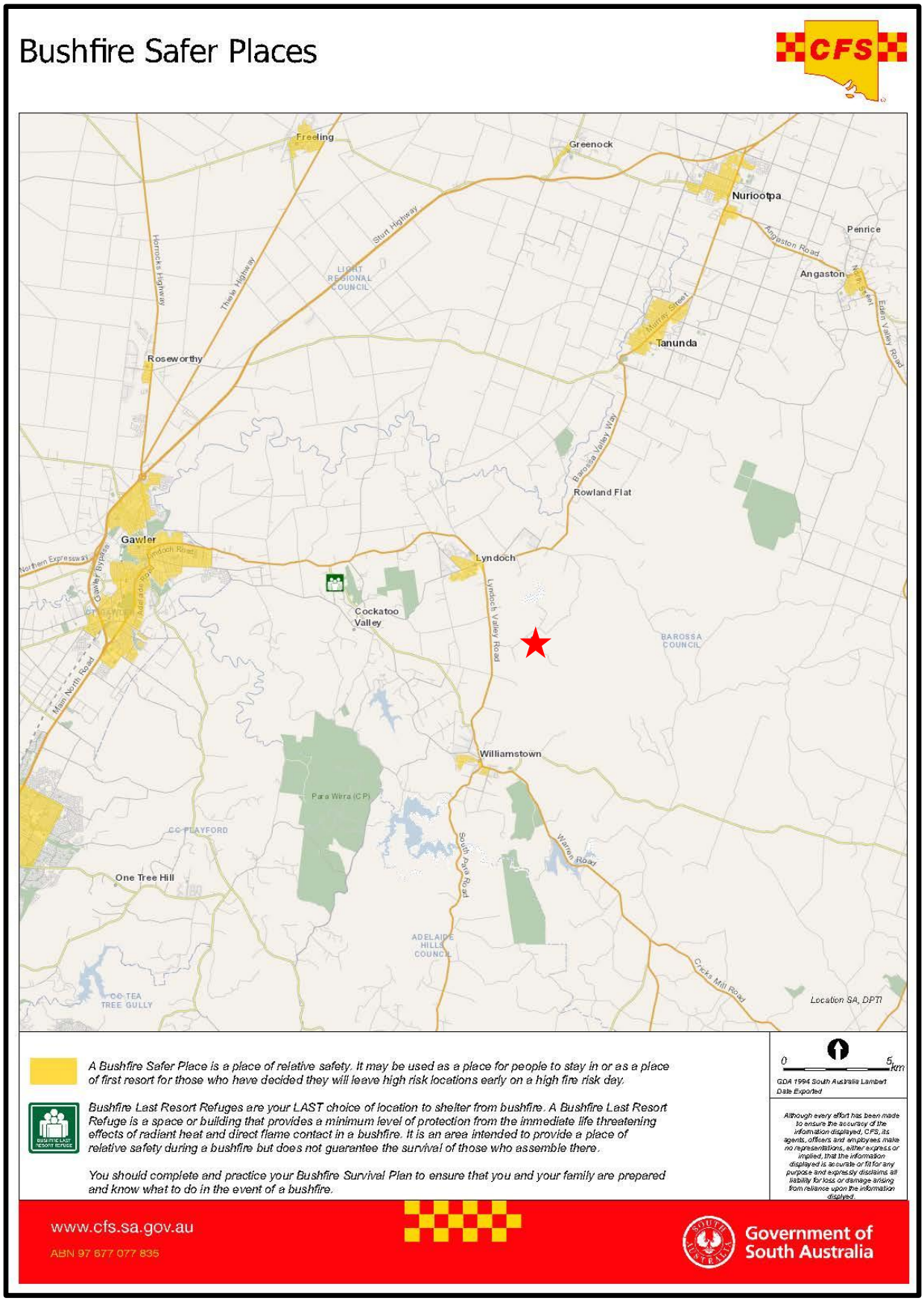


Figure 21 - Closest Bushfire Safer Places

12.3 Appendix 3 – Nominal BAL Advice

The primary risk to any developments within Bushfire-Prone areas is the proximity of proposed dwellings, assets, and infrastructure to adjacent high-risk vegetation with high fuel levels.

Reducing the available fuel surrounding the critical infrastructure mitigates the risk. These Asset Protection Zones are defined by assessing the Bushfire Attack Level (BAL) on the proposed building envelopes.

A BAL assessment determines the intensity of 'bushfire attack' on a structure and the potential for ignition from burning embers, radiant heat or flame contact.

The BAL determination is classified into levels: BAL 12.5, BAL 19, BAL 29, BAL 40, and BAL Flame Zone, with each having different levels of bushfire attack.

Bushfire attack levels are calculated using different algorithms that model various bushfire behaviours under different conditions. The nominal BAL is dictated by the level of radiant heat output in kW/m2.

The BAL calculates the interactions of classified vegetation (identified within a 100m radius of the asset), the effective slope under the classified vegetation, and the distance from the proposed structure.

For the Southern Barossa Winery & Tourist Accommodation Project, The Code states that structures should be sited away from vegetation that poses an unacceptable bushfire risk. It is recommended that, for buildings intended to be a shelter-in-place, the immediate areas surrounding the assets be cleared of classified hazardous vegetation to a distance that poses low radiant heat (BAL 12.5 or BAL 19).

These fuel-reduced zones will vary in size according to the vegetation type and the slope of the vegetation relative to the asset. Tables 10 and 11 below provide the setback distances required to meet each BAL for vegetation classified as Class B Woodland and Class G Grassland, for downslopes of 1-5 degrees (Table 11), and upslope vegetation (Table 10).

*Note:

- Any slope that is 0 degrees (level) or more will still be treated as a level slope to determine BAL.
- An FDI of 100 has been used for the BAL calculations for Southern Barossa Winery & Tourist Accommodation Project, higher than the recommended FDI of 80 for South Australia.

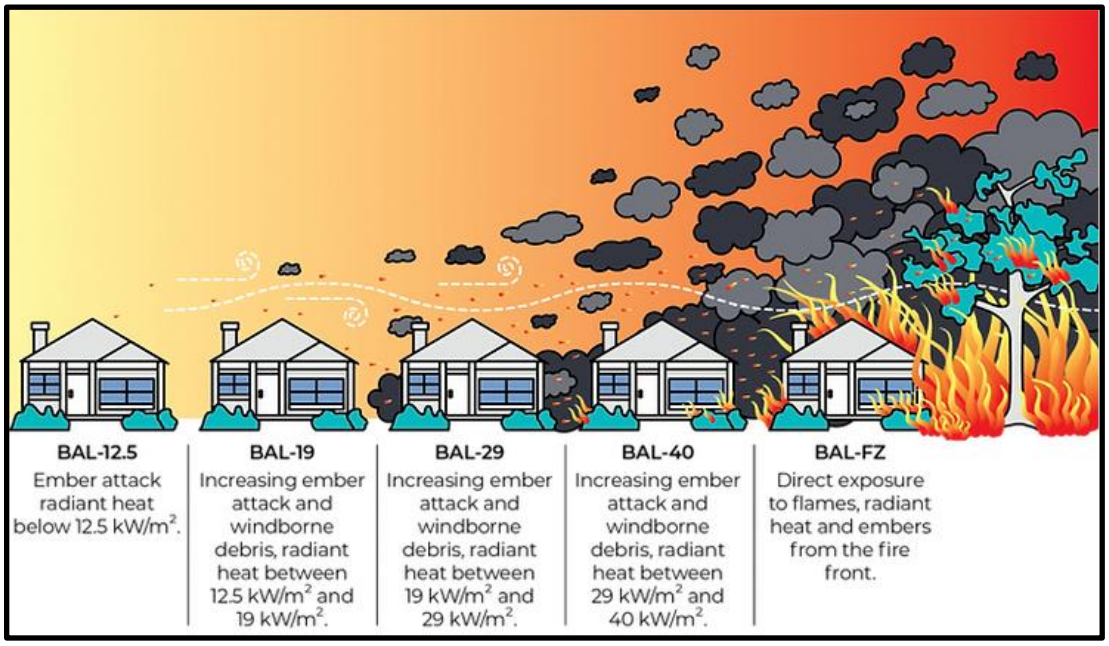


Figure 22 - BAL Determination

12.4 Appendix 4 Vegetation Management Zones

To achieve a reasonable BAL rating, a vegetation management zone will be required around the perimeter of the proposed habitable dwelling. These zones will determine the Asset Protection Zone (APZ) of the habitable building. This will require the clearing and thinning of certain trees, shrubs, and grassland on the property to reduce fuel loads and maintain the vegetation management zone in a state of minimal fuel conditions, thereby reducing bushfire risk.

The objective of the vegetation management zone (or Asset Protection Zone) (to be defined by two zones – Inner and Outer) is to have an area of reduced overall fuel hazard adjacent to that will minimise the likelihood of ember ignition, decrease the likelihood of flame contact and minimise the forward rate of spread of bushfires.

12.4.1 Inner Vegetation Management Zone

The inner zone will be the area within 2m of the dwelling, and the proposed vegetation management requires:

- all vegetation within 2m removed (litter, surface, near surface, elevated and bark hazard)
- any elevated fuels that may overhang rooflines are to be trimmed or removed.
- no vegetation regeneration, mulching or combustible materials to be incorporated into this zone.

12.4.2 Outer Vegetation Management Zone

The outer zone will be the area from the inner zone to the setbacks depicted below. This proposed vegetation management zone will form the APZ for the building envelope(s). This will require:

- all grassland is always maintained to less than 100mm.
- a maintained reduction of all elevated fuels to ensure maximum coverage is not greater than 30% in this zone.
- careful selection of clearing to ensure areas of non-continuous vegetation and tree canopy.
- no revegetation is to be undertaken in this zone.
- maintenance includes the removal of any dry/dead vegetation and continued garden irrigation.
- any individual or patches of large trees intended to be retained as part of a landscaped garden are to be ‘lifted,’ where no fuel is present up to 2m from the base.

12.5 Appendix 5 Comparison of BAL ratings

*Note:

- Any slope that is 0 degrees (level) or more will still be treated as a level slope to determine BAL.
- An FDI of 100 has been used for the BAL calculations, which is higher than the recommended FDI of 80 for South Australia.

Table 10 - Setback distances for all Upslope (FDI 100)

Vegetation Classification		*BALs*				
		BAL – FZ	*BAL – 40*	*BAL – 29*	*BAL – 19*	*BAL – 12.5*
		Setback distance (m) from structure *(The APZ, as described above, will need to exist within these distances to achieve the nominal BAL rating.)*				
Class B Woodland	* *any areas where large trees are present, amongst areas with high levels of connected fuel (i.e., surface to canopy or canopy to canopy)* * *any areas where the area of vegetation identified is level with, or upslope from, the building footprints.*	*<12*	*12-<16*	*16-<24*	*24-<33*	*33+*
Class G Grassland	* *any areas where there are moderate to high levels of surface fuels that are not actively managed.* * *any areas where the area of grassland identified is level with, or upslope from, the building footprints.*	*<6*	*6-<9*	*9-<13*	*13-<19*	*19+*

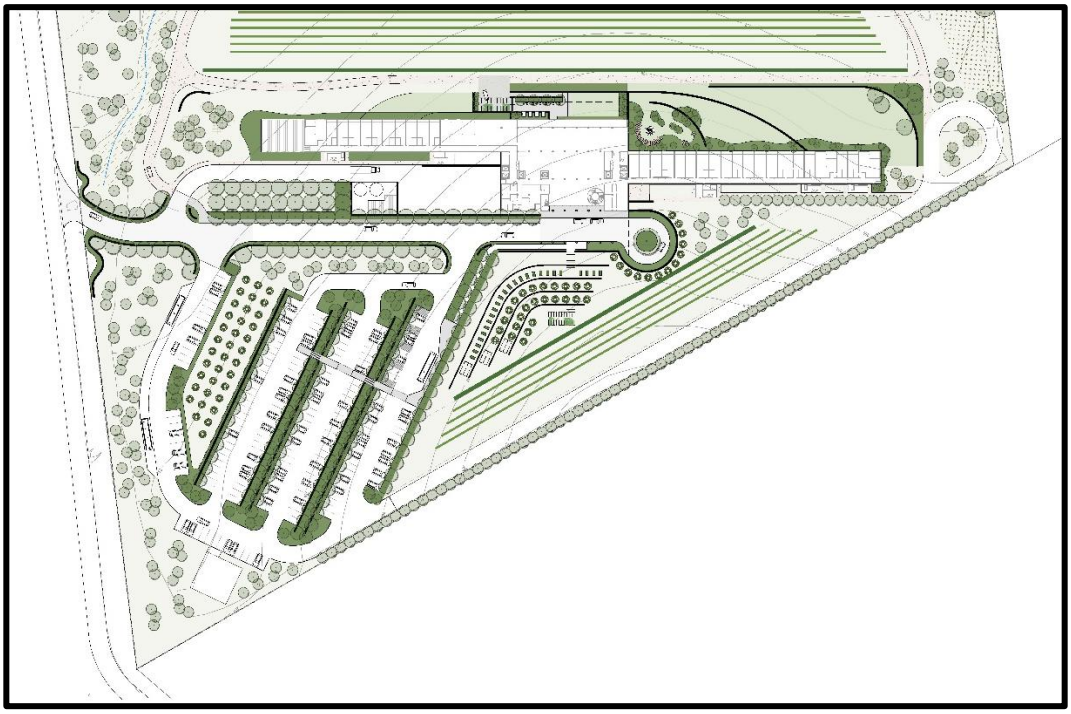
Table 11 - Setback distances for 0-5 Degree Downslope (FDI 100)

Vegetation Classification		*BALs*				
		BAL – FZ	*BAL – 40*	*BAL – 29*	*BAL – 19*	*BAL – 12.5*
		Setback distance (m) from structure *(The APZ, as described above, will need to exist within these distances to achieve the nominal BAL rating.)*				
Class B Woodland	* *any areas where large trees are present, amongst areas with high levels of connected fuel (i.e., surface to canopy or canopy to canopy)* * *any areas where the area of vegetation identified is on a slight downslope from the building footprints.*	*<15*	*15-<21*	*21-<29*	*29-<41*	*41+*
Class G Grassland	* *any areas where there are moderate to high levels of surface fuels that are not actively managed.* * *any areas where the area of vegetation identified is on a slight downslope from the building footprints.*	*<7*	*7-<10*	*10-<15*	*15-<22*	*22+*

Southern Barossa Winery & Tourist Accommodation Project

Bushfire Emergency Management Plan

July 2025



SA BUSHFIRE SOLUTIONS

Table of Contents

1 Purpose

This Bushfire Emergency Management Plan (BEMP) is focused on addressing the risks posed by a bushfire. The BEMP aligns with the Australian Standard 3745 - 2010 Planning for Emergencies in Facilities and is best practice. This plan must be read in conjunction with the bushfire risk assessment document for the site that identifies the potential bushfire risks that the planned tourism facility, at Lot 102, Hoffnungsthal Road, may be exposed to with all expected operations and occupancy on the site.

The reports focus on bushfire risk and considerations for suppression activities that follow the order of priority as stated in the Fire and Emergency Services Act, 2005, being the priority protection of "Life, Property and Environment". The report identifies the potential risks from bushfire and makes mitigation recommendations intended to provide a greater level of protection to guests and other site occupants to inform the BEMP.

The greatest bushfire threats are the people (guests, staff, contractors and visitors) and their actions, as well as the amount, configuration, and arrangement of bushfire fuel and its ability to support fire spread under adverse fire weather conditions.

The BEMP is a sub-plan of the site's Emergency Management Plan and applies to all staff, guests, contractors and visitors to the site. It is the responsibility of **all** to become familiar with the plan and to act accordingly in the event of an emergency.

This plan is authorised by the Emergency Control Organisation (ECO) for the site. The ECO is responsible for the development, maintenance and exercise of this Bushfire Emergency Plan and all operations conducted within the site, which includes management of specific bushfire-related activities, including:

- Key prevention and preparedness actions
- Evacuation and emergency response
- Communications planning
- Managing vegetation
- Bushfire weather monitoring
- Fire training

The primary objective of the BEMP is to ensure that all staff, on-site visitors, contractors, and guests can shelter-in-place safely as a bushfire passes or are evacuated early from the site and relocated to a safe area away from the bushfire's potential effects.

The plan documents the organisational arrangements, systems, strategies, and procedures relating to the response and management of bushfires to ensure the bushfire risk and potential impacts are reduced for staff, guests and any other occupants or visitors to the site.

Making decisions early with respect to forecast fire weather conditions and reported bushfires will ensure staff can direct the guests to the safest possible location prior to the impact of the bushfire. This is the most critical element to any bushfire response.

2 Emergency Control Organisation (ECO)

Any emergency requires effective management to ensure the priority is the safety of anyone who can be adversely affected. The potential risks and consequences of bushfires are significant and need greater clarity in the emergency management planning documents.

The Responsible Organisation for the development, maintenance and coordination of emergency response is the Emergency Control Organisation (ECO), which includes directors, management, and onsite staff.

The ECO is a structured team that takes command to assist emergency services in responding to a bushfire and communicates with everyone. The ECO structure is based on the level of bushfire risk and the complexity of the site. The structure is also influenced by the likely number of personnel and guests on the site at any one time.

ECO members have roles before, during and after emergencies and are required to ensure the Chief Warden is informed of the completion or non-completion of each of these tasks. ECO roles may include.

- Showing leadership.
- Organise and supervise the safe movement of staff, visitors, and contractors.
- Assist responding emergency services.
- Communicate with everyone through the warden network.

The Responsible Organisation is also accountable for ensuring the Emergency Management Committee (EMC) meets annually and reviews the policies and procedures relevant to mitigating bushfire risk and managing response.

3 Chief Bushfire Warden

Only one person will be appointed as the Chief Warden (under the ECO) at any one time. The Chief Warden may also be the Chief Bushfire Warden and First Aid Officer. The Chief Warden is the Responsible Person, and is accountable for liaising with local emergency services, completing all preparedness activities and ensuring the plan is reviewed and updated annually and that it is recorded and stored responsibly.

It is the responsibility of the Chief Warden to ensure that the guests on site are aware of their responsibilities and are available to assist with the management of and response to an emergency. The Chief Warden will also ensure that at least one other person has been trained to fill the Chief Bushfire Warden role.

During a bushfire emergency or forecast fire weather conditions at the site, the Chief Bushfire Warden has a range of options to determine the most appropriate method of keeping persons on-site safe from any potential danger.

The decision should always be based on a risk assessment that determines:

- The likely threat to life or threat of injury
- Staying is a greater risk than leaving.
- You can leave safely in a timely manner.

The following are to assist the Chief Warden in determining the most effective action during a bushfire emergency:

- Assessment of the bushfire location and the predicted impacts.
- The local fire weather conditions.
- The seriousness of the threat to human safety and evacuating occupants.
- The time expected before impact on the bushfire Shelter-in-place location or egress route.
- Available resources to evacuate all staff and guests.
- Travel time to the evacuation point and Bushfire Safer Place
- Safest travel routes
- Ability to liaise with and receive advice from emergency services.

4 Communication and Consultation

The Southern Barossa Winery & Tourist Accommodation Management will define the appropriate methods to communicate to employees, subcontractors, and guests the appropriate information regarding Bushfire Emergency Management. This may include notice boards and other communication strategies such as an induction process (bushfire information pack), bushfire waiver (upon booking), or a 'reader-friendly' bushfire emergency protocol.

The hotel will have inductions in the 'welcome packs' provided at the beginning of the stay, and relevant notices should always be somewhere displayed or accessible to guests (i.e. located at the main entrance or bus departure area). Staff and contractors should always have access to the same information (i.e. a noticeboard). The setup and maintenance of these notification areas is the responsibility of the Site Manager or a delegate.

The "notice board" will always display:

- WHS Policy,
- WHS Alerts & Bulletins; including Fire Danger Ratings (AFDRS), Total Fire Bans and Bushfire Warnings for the Mt Lofty Ranges
- Road Closures
- Emergency communication contacts
- Bushfire Emergency Plan
- Hazardous-goods register

The Bushfire Emergency Plan available will contain:

- Site Layout Plans
- Bushfire evacuation procedures
- Bushfire sheltering procedures.
- Access routes to evacuation points.
- Access routes to shelter-in-place area.
- First aid kit location(s).
- Fire protection equipment location.
- Emergency contacts list

The guest notices may include:

- Relevant Alerts & Bulletins, including Fire Danger Ratings (AFDRS), Total Fire Bans and Bushfire Warnings for the Mt Lofty Ranges
- Road Closures
- Emergency communication contacts
- 'Reader-friendly' Bushfire Emergency Plan
- Document of instructions/designations on Total Fire Ban days.

The 'reader-friendly' Bushfire Emergency Plan available to the guests should contain:

- Site Layout Map
- Bushfire Evacuation Procedures.
- Bushfire Sheltering Procedures.
- Access routes to the evacuation point.
- Access routes to shelter-in-place area.
- First aid kit location(s).
- Fire protection equipment location.
- Emergency contacts list

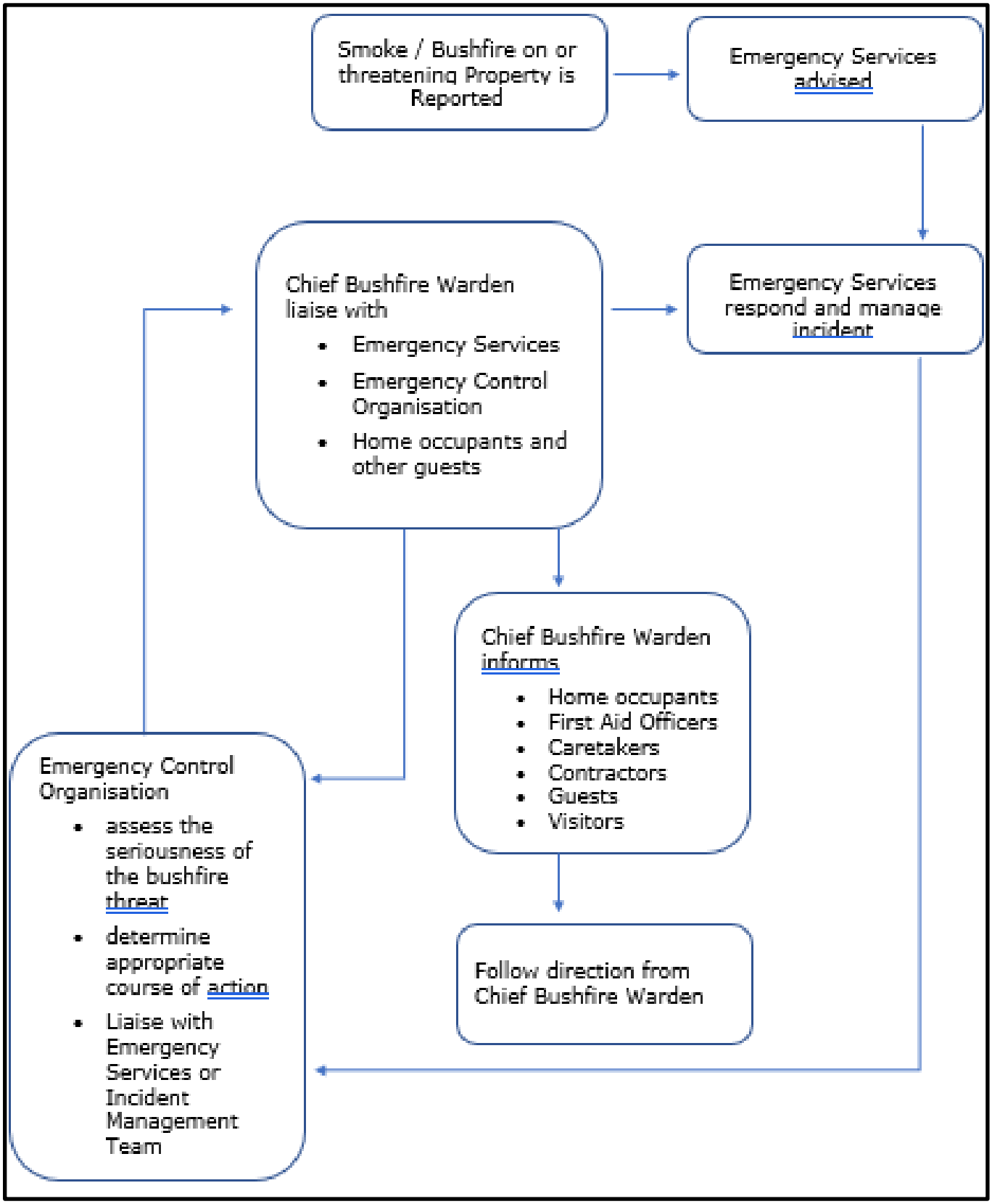


Figure 1 - ECO reporting Structure for Bushfire Emergencies

5 ECO Roles and Responsibilities

5.1 "Pre-Bushfire Emergency"

Title	Role

Chief Bushfire Warden	• Take control of all preparedness and response functions and ensure people are allocated other roles.
	• Liaise with Emergency Services.
	• Carry out safety assessments, including but not limited to:
	  o Maintaining vegetation around the sites.
	  o Ensuring pathways and roads to safer locations are regularly maintained.
	  o Management of combustible materials, including rubbish and excessive vegetation.
	  o Ensure smoking occurs in designated areas only.
	  o Ensure the designated shelter-in-place is prepared and ready for use.
	  o Ensure plant and firefighting equipment is accessible and has been checked, and is operable.
	  o Access/egress points are unobstructed.
	• Maintain a list of training for ECO members.
	• Conduct induction training.
	• Conduct regular exercises.
	• Ensure all staff and guests are aware of their responsibilities.
	• Maintain the appropriate bushfire emergency app on their mobile phone and ensure it is set to receive alerts of fires in the local area.
	• Ensure Bushfire response procedures are current and reviewed annually.

Deputy Bushfire Warden	• Support the Chief Bushfire Warden in the delivery of their duties. • Carry out the preventative maintenance as per (BMOS) • Attend required training and emergency drills • Ensure the appropriate bushfire emergency app is installed on their mobile phone and is set to receive alerts of fires in the local area.
First Aid Officer	• Ensure the First Aid equipment is fully stocked and current. • Ensure appropriate First Aid training has been maintained.

Table 1 - ECO Roles and Responsibilities "Pre-Bushfire Emergency"

5.2 "During a Bushfire Emergency"

Title	Role
Chief Bushfire Warden	• Ascertain the nature of the bushfire emergency and implement appropriate action. • Respond and take control, providing leadership and direction. • Ensure any site visitors and guests are kept fully informed and aware of the emergency. • Ensure that the emergency services are notified. • Determine if the response is to evacuate or shelter-in-place. • Initiate and oversee relevant response procedures. • Maintain welfare checks and ensure everyone is accounted for. • Ensure visitors and guests are kept fully informed and aware of the emergency. • Ensure the orderly flow of people whilst either evacuating or sheltering-in-place. • Ensure the emergency services are aware of the property address, the number of occupants and response procedures. • Brief emergency services personnel upon arrival. • In the event of an evacuation, ensure the vehicles leave the site safely. • Provide appropriate support if shelter-in-place is being undertaken.
Deputy Bushfire Warden	• Upon being notified of the bushfire emergency, immediately report to the Chief Bushfire Warden to receive direction. • Commence implementing the Bushfire Emergency Plan procedures (evacuate or shelter-in-place) • Provide accurate and timely advice to the Chief Bushfire Warden and ensure the orderly and safe flow of people during evacuation or shelter-in-place procedures. • Report completion of allocated tasks to the Chief Bushfire Warden. • Monitor Advice - Reduced Threat Messages
First Aid Officer	• Upon being notified of the bushfire emergency, immediately report to the Chief Bushfire Warden in person or via phone to receive directions. • Respond to any first aid emergency and provide support as required until an Ambulance arrives on site. • If an Ambulance is required, notify the Chief Bushfire Warden, who will contact Emergency Services.

Table 2 - ECO Roles and Responsibilities "During a Bushfire Emergency"

5.3 "Post Bushfire Emergency"

Title	Role
Chief Bushfire Warden	• When the emergency has been declared safe by the emergency services, inform the Deputy Bushfire Wardens as required. • If a shelter-in-place procedure was undertaken, facilitate the safe and orderly evacuation of the shelter. • Ensure liaison with emergency services has occurred to advise the safest route. • If possible, organise a debrief with the ECO members and, where appropriate, with emergency service organisation representative/s.
Deputy Bushfire Warden	• Seek direction from the Chief Bushfire Warden. • In the event of the Shelter-in-place procedure occurring, support the orderly departure from the facility and: o Assess the bushfire situation post-fire front. o Assess if it is safe to move from shelter-in-place. o Facilitate the orderly evacuation of the shelter-in-place. o Monitor and provide support if required. o Support and assess all staff, guests and vehicles for injury or damage. • Participate in any post-emergency debrief actions. o Monitor Advice - Reduced Threat Messages • All structural assets are to be checked by qualified personnel.
First Aid Officer	• Seek direction from the Chief Bushfire Warden. • Monitor and provide support if required. • All injuries are to be referred to seek medical attention and to be appropriately recorded. • If possible, participate in any post-emergency debrief actions.

Table 3 - ECO Roles and Responsibilities "Post Bushfire Emergency"

6 Bushfire Response Actions

The Chief Bushfire Warden, during a bushfire emergency or forecast fire weather conditions at the site, has a range of options to determine the most appropriate method of keeping staff, guests, contractors, and all other visitors safe from any potential danger.

The decision should always be based on a risk assessment that determines the following;

- The likely threat to life or threat of injury.
- Staying is a greater risk than leaving.
- You can leave safely and promptly.

The following points are to assist the Chief Bushfire Warden in determining the most effective action during a bushfire emergency:

- Assessment of the bushfire location and predicted impacts.
- The local fire weather conditions.
- The time expected before impact on the bushfire shelter-in-place location or egress route before everyone can be safely evacuated to the Bushfire Safer Place.
- The seriousness of the threat to human safety and evacuating occupants.
- Available resources to evacuate everyone.
- Travel time to the evacuation point and the Bushfire Safer Place.
- Ability to liaise with and receive advice from Emergency Services.

A Bushfire Emergency Warning from SACFS may require immediate evacuation or sheltering-in-place on the day with little or no warning and limited preparation time. There should be no expectation that Emergency Services will be available to support any firefighting activities.

Evacuation from the property to a Bushfire Safer Place or Last Resort Refuge will require travelling through other high bushfire risk areas and areas. If choosing to evacuate, the access routes must be considered based on the known fire location or predicted fire spread.

IMMEDIATE FULL EVACUATION	• This measure will be used to remove all personnel and occupants from the centre to a designated Bushfire Safer Place.
PRE-WARNED EVACUATION	• This measure follows reliable information that prompts a decision to **possibly** undertake a controlled and managed evacuation.
SHELTER-IN-PLACE (NO EVACUATION)	• This should be seen as the recommended Secondary response. • Leaving the property during a bushfire is likely to be considered unsafe. • Not enough time to safely move all staff, contractors, and guests offsite to a safe area.

Table 4 – Evacuation options

6.1 Primary Response

The recommended **primary action** in response to forecast fire weather conditions or a reported bushfire is to **evacuate early**.

Evacuation is the process of moving people from where they are at risk to another location that is an appropriate distance (following a route that is the quickest and safest) away from the effects of a bushfire to a safer location.

Leaving early is critical to ensuring occupants are not on the property when the bushfire danger becomes elevated, thereby ensuring everyone's safety and freedom from the risk of injury, including potentially fatal injuries.

Evacuation advice and direction will be provided by the Chief Bushfire Warden and communicated by the on-site deputy wardens or the Chief Warden to all staff, guests, contractors, and visitors.

If in doubt, always choose the conservative approach that improves the survivability of the visitors.

6.2 Secondary Response

The recommended **secondary action** in response to forecast fire weather conditions or a reported bushfire for all sites is to **shelter-in-place**.

Sheltering-in-place is the process of moving people to a designated bushfire shelter-in-place building that has been appropriately assessed and determined to be located a sufficient distance away from high-risk vegetation. It will be constructed to Australian Standards to support the expected number of people and withstand the effects of bushfire attack from the classified vegetation.

The Chief Bushfire Warden will direct staff and guests to the depicted shelter-in-place structure for the site, where they will remain inside as the fire front passes.

7 Recommended Actions on forecast Fire Danger Ratings

Fire Danger Rating	Fire Behaviour Index (FBI)	Action for the ECO
CATASTROPHIC	100+	**SITE CLOSED:** • No one is allowed on site. • Fire Danger Rating is issued by BOM for the following day. • Advice to be distributed by owners/management the day prior.
EXTREME	75-99	**SITE CLOSED:** • No one is allowed on site. • Fire Danger Rating is issued by BOM for the following day. • Advice is distributed by owners/management the day prior.
EXTREME	50-74	**SITE OPEN TO RESTRICTED NUMBERS:** **The Chief Bushfire or Deputy Bushfire Warden will:** • Monitor the Alert SA app, ABC Radio, SACFS website, and CFS Bushfire Information Hotline throughout the day. • Share all relevant information with the ECO. • Ensure preparations undertaken for potential evacuation or sheltering in place, including prepositioning of any vehicles and preparation of designated shelter-in-place area. • Follow advice from Emergency Services **Deputy and Building Wardens will:** • Always remain in contact with the Chief Bushfire Warden **All staff and visitors will:** • Follow the direction of the Chief Bushfire Warden or Emergency Services
HIGH	24-49	**SITE OPEN:** **The Chief Bushfire or Deputy Bushfire Warden will:** • Undertake a risk assessment to determine daily activities. **All staff and visitors will:** • Participate in risk assessment to determine daily activities. • Follow the direction of the Chief Bushfire Warden or Emergency Services
MODERATE	12-23	**OPEN**: • Normal bushfire plan procedures apply

Table 5 - Actions for Forecast Fire Danger Ratings

8 Recommended Actions for 'Bushfire Advice' Warning Messages

'Bushfire Advice'	
Title	**Responsibilities**
Chief Bushfire Warden	• Monitor the Alert SA app, ABC Radio, SACFS website, and CFS Bushfire Information Hotline • In addition to SACFS advice (polygon), monitor the location of any bushfires and reported incidents. • If a reported fire is within **10km of the site**, consider the option to evacuate early. • Share all relevant information with the Deputy Bushfire Warden. • Determine the time to evacuate early. • Undertake scheduled guest welfare checks at 0900, 1200, 1500 and 1800. • Liaise with and follow advice from Emergency Services
Deputy Bushfire Wardens	• Monitor the Alert SA app, ABC Radio, SACFS website, and CFS Bushfire Information Hotline • Always remain in contact with the management and all staff. • Contribute to scheduled welfare checks at 0900, 1200, 1500 and 1800. • Prepare to be evacuated as required. • Liaise with guests, staff, and contractors regarding conditions and directions as directed by the Chief Bushfire Warden. • Report on outside conditions and location of guests to the Chief Bushfire Warden.
All staff	• Monitor the Alert SA app, ABC Radio, SACFS website, and CFS Bushfire Information Hotline. • Monitor Emergency Alert Messages. • Follow the direction of the Chief Bushfire Warden, Deputy Warden, or Emergency Services.
Contractors & Guests	• Monitor the Alert SA app, ABC Radio, SACFS website, and CFS Bushfire Information Hotline. • Monitor Emergency Alert Messages. • Follow the direction of the Deputy Warden or Emergency Services.

Table 6 - Actions for 'Bushfire Advice' Message

9 Recommended Actions for 'Bushfire Watch and Act' Warning Messages.

'Bushfire Watch and Act'	
Title	**Responsibilities**
Chief Bushfire Warden	• Monitor the Alert SA app, ABC Radio, SACFS website, and CFS Bushfire Information Hotline • In addition to SACFS advice (polygon), monitor the location of any bushfires and reported incidents. • If a reported fire is within **5km of the site**, consider the risks of travelling to a safer location and that evacuation may no longer be the safest option; the preferred option may be to Shelter-in-place. • Share all relevant information with the Deputy Warden. • Determine the time to evacuate early. • Undertake scheduled guest and staff welfare checks at 0900, 1200, 1500 and 1800. • Liaise with and follow advice from Emergency Services.
Deputy Bushfire Wardens	• Monitor the Alert SA app, ABC Radio, SACFS website, and CFS Bushfire Information Hotline • Always remain in contact with management and all staff. • Contribute to scheduled guest and staff welfare checks at 0900, 1200, 1500 and 1800. • Prepare to be evacuated as required. • Undertake preparations for potential evacuation, including prepositioning of any vehicles and preparation of a dedicated Shelter-in-place area for use. • Prepare/check the Bushfire Shelter-in-place location for possible occupation by staff, guests, and contractors, including checking of operation of all fire defence systems and emergency supply equipment, including power supply systems, generators, and fire hose reels. • Liaise with guests, staff, and contractors regarding conditions and directions as directed by the Chief Bushfire Warden • Report on outside conditions and location of guests to the Chief Bushfire Warden
All staff	• Monitor the Alert SA app, ABC Radio, SACFS website, and CFS Bushfire Information Hotline • Monitor Emergency Alert Messages. • Follow the direction of the Chief Bushfire Warden, Deputy Warden, or Emergency Services.
Contractors & Guests	• Monitor the Alert SA app, ABC Radio, SACFS website, and CFS Bushfire Information Hotline • Monitor Emergency Alert Messages • Follow the direction of the Deputy Warden or Emergency Services

Table 7 - Actions for 'Bushfire Watch and Act' Message

10 Recommended Actions for 'Bushfire Emergency' Warning Messages

'Bushfire Emergency'	
Title	**Responsibilities**
Chief Bushfire Warden	• Monitor the Alert SA app, ABC Radio, SACFS website, and CFS Bushfire Information Hotline • In addition to SACFS advice (polygon), monitor the location of any bushfires and reported incidents. • If a reported fire is within **1km of or on site**, confirm the preferred option to evacuate early is no longer the safest option and must now shelter-in-place. • Share all relevant information with Deputy Wardens. • Advise the CFS duty officer of shelter-in-place plans. • Advise the CFS duty officer when safely sheltered-in-place. • Undertake scheduled welfare checks at 0900, 1200, 1500 and 1800. • Liaise with and follow advice from Emergency Services
Deputy Bushfire Wardens	• Monitor the Alert SA app, ABC Radio, SACFS website, and CFS Bushfire Information Hotline • Always remain in contact with the Chief Building Warden and office staff • Prepare to shelter-in-place. • Contribute to scheduled guest and staff welfare checks at 0900, 1200, 1500 and 1800. • Support/comfort guests, staff, and contractors during the shelter-in-place procedure. • Report to the Chief Bushfire Warden when safely sheltering.
All staff	• Monitor the Alert SA app, ABC Radio, SACFS website, and CFS Bushfire Information Hotline • Monitor Emergency Alert Messages. • Follow the direction of the Chief Bushfire Warden, Deputy Warden, or Emergency Services.
Contractors & Guests	• Monitor the Alert SA app, ABC Radio, SACFS website, and CFS Bushfire Information Hotline • Monitor Emergency Alert Messages • Follow the direction of the Deputy Warden or Emergency Services

Table 8 - Actions for 'Bushfire Emergency' Warning Message

11 Recovery

After the fire has passed, all staff, guests, on-site contractors, and visitors are to remain in the designated Bushfire Safer Place or shelter-in-place area until the Chief Bushfire Warden has liaised with the Emergency Services to confirm the fire area has been declared safe before any person is allowed to leave or re-enter the property.

The Chief Bushfire Warden and Emergency Services will coordinate post-fire evacuation (as required) from the shelter-in-place building. It is noted that this may take some time.

If the emergency action was to shelter-in-place, once the fire front has passed, the Chief Bushfire Warden (or delegate) will assess any existing hazards (including where appropriate extinguishing embers and small fires outside) and check it's safe to move from the bushfire shelter-in-place structure.

The Chief Bushfire Warden will advise Emergency Services that staff and guests are all safe.

The Chief Bushfire Warden will arrange a suitable time with staff to have a debrief that includes the questions.

- What was planned?
- What happened?
- What can we do better next time?

The Chief Bushfire Warden will assess the impacts of the bushfire and enact the Business Continuity Plan as required.

12 Appendix

12.1 Bushfire Emergency Evacuation Plan (Example)

Bushfire Emergency Evacuation Plan		
Primary Action	Evacuate the site	
Secondary Action	Shelter-in-place	
Key Site Contact	Chief Bushfire Warden – TBA	
Infrastructure on site	Large Hotel Winery and Cellar Door Multiple sheds for storage (including dangerous and flammable goods) Dedicated fire water	
Number of staff and guests	Up to XX Guests Up to XX staff	
Roles and responsibilities	The Chief Bushfire Warden oversees the site, supported by on-site staff.	
Emergency Contacts	Emergency Services - SACFS Hotline - SACFS Incident Information	000 1300 362 361 SACFS warnings and incidents
Evacuation or shelter-in-place procedures		
Shelter-in-place onsite will be determined by the Chief Bushfire Warden in conjunction with the ECO.		
IMMEDIATE SHELTER-IN-PLACE (NO EVACUATION) • Advice from Emergency Services • Fire reported **within 1km or on site**		
PRE-WARNED (Possible) EVACUATION • Advice from Emergency Services • Fire reported **within 5km**. • High forecast fire weather conditions (FBI 49 or above)		
IMMEDIATE FULL EVACUATION (SITE CLOSED) • FBI 100 or above		
Designated bushfire assembly area, evacuation point and SACFS Bushfire Safer Place		
STAGE 1 – Bushfire assembly area (TBD) **STAGE 2** – Bushfire evacuation point (TBD) **STAGE 3** – SACFS Bushfire Safer Place (Lyndoch) or Place of Last Resort (Cockatoo Valley)		
Transport and Travel Requirements		
Travel time requirements (to travel to evacuation point)		5 minutes
Travel time requirements (to travel from the evacuation point to the SACFS Bushfire Safer Place or the Place of Last Resort)		15 minutes
Number of vehicles required (to travel from the evacuation point to the SACFS Bushfire Safer Place or the Place of Last Resort)		1 car 1 trip
Person organising transport		CBW

12.2 Bushfire Shelter-in-Place (SIP) Procedures

Stage	Trigger	Action
Preparation of the bushfire shelter-in-place building	• Prior to the declaration of the Fire Danger Season (October/November)	• Undertake all preparedness actions in the Bushfire Management Operational Schedule (BMOS) for the site.
Preparation prior to the fire front	• Fire reported **within 1km.** • Ember attack landing on or in the immediate vicinity of the shelter-in-place building.	• Follow the direction of the Chief Bushfire Warden. • Move to the bushfire shelter-in-place (SIP) building. • Put on personal protective clothing. • Wait outside the SIP for as long as possible (prior to the impact of the fire front) • Account for all persons • Possibly wet down the surrounding vegetation • Remain calm. • Advise Emergency Services that you have moved to SIP.
Response	• Embers attacking the bushfire shelter-in-place building. • Intense radiant heat, thick smoke, and fire • Imminent fire front impact	• Move inside the SIP. • Close and secure all doors, windows, and vents. • Advise Emergency Services that you have moved to SIP. • Remain in the SIP until the fire front has passed. • Remain calm
Recovery	• Fire front has passed	• Open the SIP door • Assess outside conditions. • If safe to do so, move out of the SIP and to the evacuation point. • If safe to do so, extinguish any burning material adjacent to the SIP. • Assess the welfare of all. • Attend to any medical requirements. • Advise Emergency Services of the situation. • Await advice for evacuation to a safe place

12.3 Chief Bushfire Warden Evacuation Checklist (Example)

Task	Requirement	Yes/No
Equipment check	Torch	
	Reflective vest	
	Notepad and pen	
	Mobile phone	
	Important Contact Numbers List	
	Staff and Guest List	
Risk assessments	Have you checked SACFS Bushfire Messages?	
	Have you assessed options to evacuate or shelter-in-place?	
	Have you considered the time required to evacuate to a SACFS Bushfire Safer Place?	
Coordination	Have you prepositioned vehicles or arranged appropriate transport from the evacuation point to the SACFS Bushfire Safer Place?	
	Have you confirmed the safest egress routes?	
	Have you been notified to evacuate or shelter-in-place?	
Notification	Have you advised all staff, guests, the Chief Bushfire Warden, and Emergency Services of the decision to evacuate or shelter-in-place?	
	Have you advised all staff and guests to assemble at the bushfire shelter-in-place building?	
	Have you notified the Chief Bushfire Warden that all staff and guests are accounted for at the bushfire shelter-in-place building?	
	Have you advised all staff and guests to assemble at the evacuation point?	
	Have you notified the Chief Bushfire Warden that all staff and guests are accounted for at the evacuation point?	
	Have you advised all staff and guests to assemble at the SACFS Bushfire Safer Place?	
	Have you notified the Chief Bushfire Warden that all staff and guests are accounted for at the bushfire safer place and evacuation is complete?	

12.4 Waivers & Inductions (examples)

12.4.1 Suggested disclaimer.

Disclaimer of Responsibility: Our role as your hosts is to facilitate your stay and assist you in an enjoyable visit. However, in the event of any bushfire activity, as outlined in the site induction completed on arrival, you will be required to follow the instructions of the Chief Bushfire Warden and act accordingly.

If you fail to comply with the directions of the Chief Bushfire Warden during the enactment of the Bushfire Emergency Plan, we cannot guarantee your safety and therefore cannot be held liable for any harm or injury that may come to anyone in your party.

You acknowledge you have been given a site induction appropriate to the risk posed to this site concerning bushfire, and you accept and understand that, in the instance of a bushfire event, wherein you fail to comply with safety instructions, and this results in injury or death, the hosts at Southern Barossa Winery & Tourism Accommodation cannot be held liable.

12.4.2 Welcome Letter - Bushfire

The risks from bushfires to life and property during the summer months in Australia are extreme and have been catastrophic on multiple occasions. Our intent is not to make any alterations to your stay, but to make you aware of the environment in which we exist and familiarise yourself with the site concerning this. To understand and appreciate the bushfire risk at this site upon booking and then your arrival, you were asked to sign the disclaimer and participate in a site induction.

The site induction has shown the location of the emergency evacuation point, all site access and egress options, the designated shelter-in-place area, the locations of fire extinguishers, fire hose reels and the dedicated fire water supply.

You were also informed at the point of booking that, given the location of our accommodation, your booking may be subject to change in line with potential fire activity and conditions posing a threat to the site.

You will find a copy of the instructions outlined in the induction and a site map on the wall of your dwelling.

MEMORANDUM

Subject:	Concept Fire Safety Strategy		
Project:	Barossa Winery and Tourism Accommodation		
Reference:	LCE102734-027		
Revision:	02		
Date:	22nd August 2025	Pages:	9 + Appendices

INTRODUCTION

The following memorandum has been prepared to outline the proposed concept fire safety strategy that is proposed and the associated relevant Fire Authority (SA Country Fire Service – SAFCS) consultation that has occurred for the above project.

This document is relevant to both the Winery and Tourist Accommodation internal building fire safety provisions providing and overview of the proposed fire safety initiatives with respect to Sections C, D and E of the National Construction Code, Volume 1 2022 (NCC), however is not intended to form part of the regulatory building approval requirements and should be noted as a concept design which will require development through the latter fire engineering process.

Provisions relating to Bushfire hazards are excluded from this document and are to be addressed by others.

PRINCIPAL BUILDING CHARACTERISTICS & OBJECTIVES

Building and Site Overview

Table 1: Building characteristics relevant to the NCC.

Characteristic	Description	
	Tourist Accommodation	Winery
Building classification(s)	Class 3: Accommodation Class 9b: Public Assembly Function Class 6: Restaurant Class 5: Office areas	Class 8: Production Class 7b: Warehouse and Storage Class 6: Retail / Restaurant Class 5: Office
Rise in storeys	6	1
Number of storeys contained	6	1
Effective height	16m approx.	0m
Large Isolated Building	No	No

Figure 1: Site characteristics.

Fire Safety Objectives

Societal Obligations (Objectives of the NCC)

The fire safety objectives defined within the NCC are summarised as follows. These are considered minimum mandatory objectives for the project:

- Safeguard occupants from illness, injury or fatality due to fire in a building and whilst evacuating a building during a fire.
- Provide services and limit fire spread to facilitate safe firefighting and other emergency response activities undertaken by occupants, the fire brigade and other emergency services personnel.
- Protect other buildings/property from damage as a consequence of structural failure during a fire.

Stakeholder Objectives

In addition to the regulatory objectives, the following additional fire safety objectives have been set by the project stakeholders:

- Measures to protect the building and contents from damage in the event of a fire should be considered and implemented, wherever cost effective, to aid business continuity in the event of a fire.

PRELIMINARY FIRE SAFETY STRATEGY

The Fire Safety Strategy described herein is a summary of the preliminary approach to addressing each fire safety objective identified for the building, considerate of the expected fire hazards. Refer also to the Fire Safety Strategy Plans attached.

All items relating to fire safety not specifically described within this section are preliminary in nature to inform the initial Planning Phase design input and are to be developed and validated as part of the fire engineering briefing, analysis and reporting phases.

Passive Fire Safety Measures

Fire & Smoke Barriers & Compartmentation

Tourist Accommodation:

The building construction type is not proposed to deviate from the NCC Deemed-to-Satisfy provisions as such are to be of Type A construction and is not located adjacent any Fire Source Features as defined within the NCC.

In general fire separation shall be provided as a floor by floor basis throughout, however with an open internal stair between the levels within the front of house areas of the central portion of the building between levels 3 to 5. The East and West accommodation wings are also fire separated from the central portion of the building.

The individual accommodation units shall be provided with fire rated bounding construction from the surrounding areas.

Additional fire compartment may be required as per the NCC Deemed-to-Satisfy provisions or other areas of specific risk.

Smoke separation shall be within the accommodation corridors within the permissible corridor lengths prescribed within the NCC Deemed-to-Satisfy provisions.

Winery:

The building construction type is not proposed to deviate from the NCC Deemed-to-Satisfy provisions as such are to be of Type A construction and is not located adjacent any Fire Source Features as defined within the NCC. However, the building is to be a single fire compartment which shall exceed the total allowable volume limits permissible under the NCC Deemed-to-Satisfy provisions and shall be addressed via a Performance Solution based on the assessed fire hazards and protective measures.

Occupant Egress

Tourist Accommodation:

The buildings internal egress provisions continue to be developed, however are intended to align with the NCC Deemed-to-Satisfy provisions utilising the external open stairs to the east and west accommodation wings along with the internal fire stairs within the central area, all discharging to external.

Subject to the ongoing design there may be some areas which require to be addressed via a Performance Solution.

Winery:

Similarly the buildings internal egress provisions continue to be developed and are intended to align with the NCC Deemed-to-Satisfy provisions, however being a single storey building with a single fire compartment all exits are direct to outside with only external ramps and stairs to accommodate the site levels.

Subject to the ongoing design there may be some areas which require to be addressed via a Performance Solution

Active Systems

Automatic fire sprinklers

Automatic fire sprinkler system is provided throughout both buildings including the covered transport way between the two buildings, in accordance with AS2118.1 to suit the relevant hazard classifications.

The system is required to the Tourist Accommodation building under the NCC Deemed-to-Satisfy provisions. Although it is optional to the Winery building to negate sprinkler protection should additional fire compartmentation be introduced, however it is understood the clients preference to provide sprinkler protection for future flexibility and asset protection.

Fire Detection & Alarm

Tourist Accommodation:

As the building contains sleeping occupants an automatic fire detection and alarm system is required under the NCC Deemed-to-Satisfy provisions to initiate evacuation of occupants in the early stage of a potential fire. As such, an addressable fire detection and alarm system is provided throughout both the buildings in accordance with AS1670.1. Given the nature of the building the system shall generally consisting of and the following:

- Smoke detection throughout all areas, except those nominated in AS1670.1-2018 Appendix M that may be subject to spurious alarm. In this case, heat detectors are provided instead.
- Smoke detection arranged for smoke control and early activation of occupant warning as a minimum.

- Manual call points adjacent all fire hose reels and required exits.
- Occupant warning loud speakers throughout all areas.
- Fire brigade call-out via the Alarm Signalling Equipment (ASE) is activated immediately upon any alarm condition being registered.

Secondary automatic fire detection will also be provided in the form of activation of the automatic fire sprinkler system.

Winery:

The type and classification does not require a fire detection and alarm system under the NCC Deemed-to-Satisfy provisions, however automatic fire detection will also be provided in the form of activation of the automatic fire sprinkler system and initiate evacuation of occupants during a potential fire. Given the nature of the building the system shall generally consisting of and the following:

- Fire detection vis sprinkler system activation.
- Occupant warning loud speakers throughout all areas.
- Fire brigade call-out via the Alarm Signalling Equipment (ASE) is activated immediately upon any alarm condition being registered.

Exit & Emergency Lighting

An exit and emergency lighting system is to be provided throughout the building in accordance with AS 2293.1-2018. Exits signs are to be illuminated devices with "running person" graphics.

Provisions For Firefighting

Handheld Firefighting Equipment

Manually operated fire suppression system form part of the fire safety strategy for both buildings, to enable occupants to undertake initial attack on a fire before it grows to a large/unmanageable size.

Portable fire extinguishers and fire hose reels are to be provided throughout the building suit the relevant hazards.

Fire Hydrant System

A fire hydrant system is to be installed to each building in accordance with the NCC Deemed-to-Satisfy provisions and AS2419.1 to provide means of attending fire brigades to utilise a pressurised water supply to undertake firefighting operations. Given the site arrangement, access and distance between buildings each building is to be provided with a dedicated system.

Fire hydrants are to be located externally around the buildings and internally within the fire stairs at each level for the Tourist Accommodation building.

There may be some departures from AS2419.1 and will be required to be justified as a Performance Solution to suit the fire brigades' operational requirements.

Fire Water Infrastructure

Subject to finalisation of water supply capacity from the SA Water towns mains it is anticipated on site fire water storage shall be required, in this assumed arrangement the fire hydrant system and fire sprinkler systems shall share combined infrastructure.

Similar to the above each building shall be provided with independent fire water infrastructure, proposed locations of equipment has been coordinated with the SACFS and are indicated in figures 2 and 3 below.

Fire Brigade Access & Control Points

Tourist Accommodation:

The site general access and fire brigade access will be via Menzel Road. Internal driveway road provides access to the fire water infrastructure and the main building entry where the buildings fire indicator panel shall be located.

The driveway access road is intended to include a layby area adjacent the fire water infrastructure to enable vehicles to pass whilst the fire brigade activities are underway. In addition, the internal carpark and driveways enable the SACFS to exit in a forward direction.

Additional unsealed tracks are intended to be provided to the boundary albeit not related to the NCC requirements for fire brigade access.

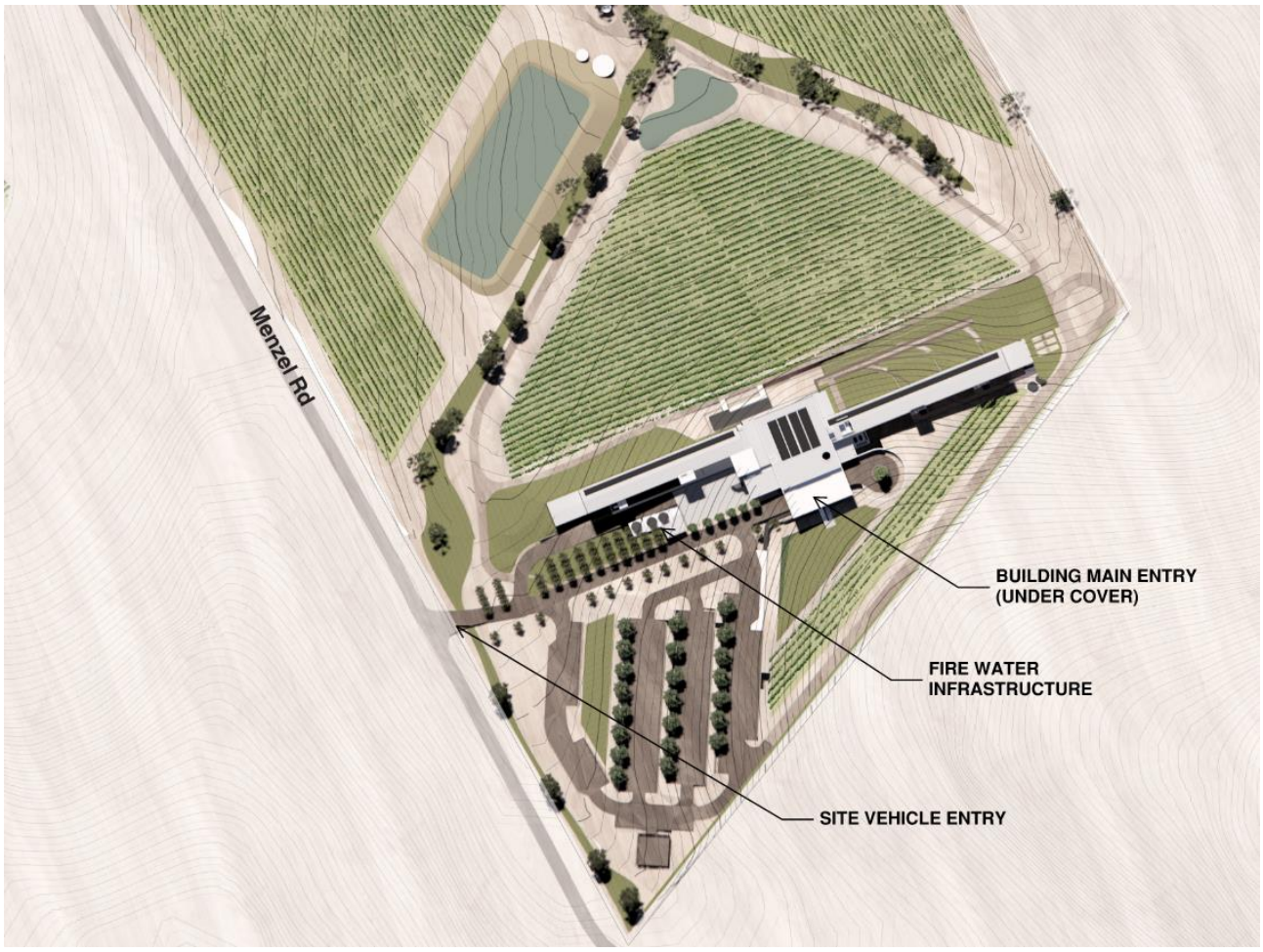


Figure 1: Tourist Accommodation Fire Infrastructure and Access

There may be some departures from AS2419.1 and will be required to be justified as a Performance Solution to suit the fire brigades' operational requirements.

Winery:

The site general access and fire brigade access will be via Menzel Road. Internal driveway road provides access to the fire water infrastructure and the main building entry where the buildings fire indicator panel shall be located.

The driveway access road is intended to include a layby area adjacent the fire water infrastructure to enable vehicles to pass whilst the fire brigade activities are underway. In addition the internal carpark and driveways enable the SACFS to exit in a forward direction.

Additional unsealed tracks are intended to be provided to the boundary albeit not related to the NCC requirements for fire brigade access.

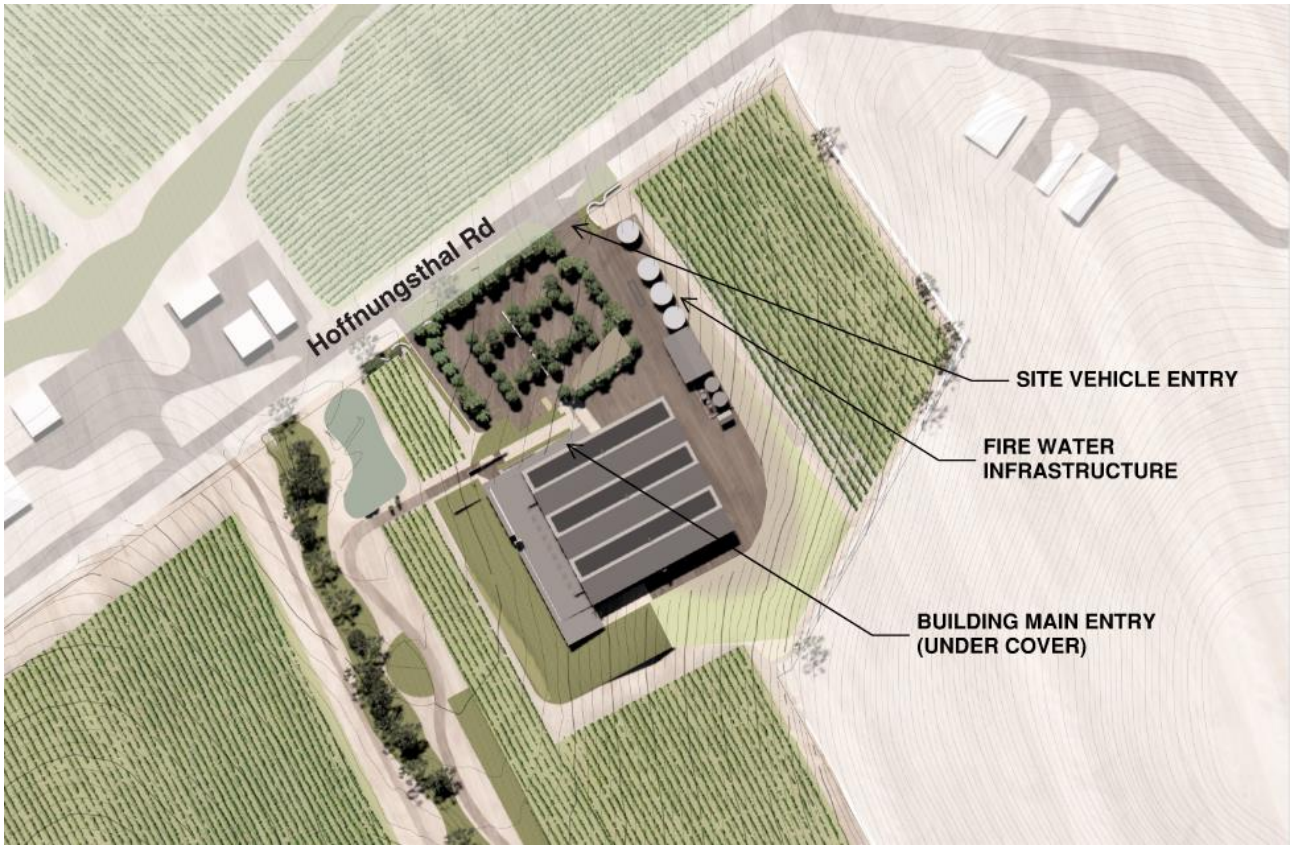


Figure 3: Tourist Accommodation Fire Infrastructure and Access

There may be some departures from AS2419.1 and will be required to be justified as a Performance Solution to suit the fire brigades' operational requirements.

PERFORMANCE SOLUTION OVERVIEW

Each of the Performance Solutions proposed have been provided based on our review of the available documentation, our assessment of the proposed design against the 2022 NCC, and to address the fire risk associated with this specific occupancy type relating to Base Building Enhanced only.

The building design is likely to incorporate Performance Solutions with respect to fire safety, the preliminary assessment has identified these as listed below. Where a Performance Solution is not specifically identified within this document it does not preclude the inclusion of additional as necessary as the overall building design progresses.

Table 2: Likely NCC Performance Solutions.

No.	NCC DTS Provision	Description of the Deviation/Performance Solution
Tourist Accommodation		
TA1	C2D2 – Type of Construction Required	Detailing of fire wall interfaces which may not align with the tested prototypes.
TA2	D2D5 – Exit travel distances. D2D6 – Distance between alternative exits. D2D14 – Travel by non-fire-isolated stairways or ramps	The travel distances to exits or a point of choice exceed the prescribed maximums. The distance between exits exceeds the prescribed maximum. Travel distance from internal stairways to an exit exceed the prescribed maximum.
TA3	E1D2 – Fire hydrants AS2419.1	Additional hose lengths required to provide fire hydrant coverage to the building.
TA3	E1D2 – Fire hydrants AS2419.1	Booster assembly is remote from the subject building and not within the site boundary.
Winery		
W1	C2D2 – Type of Construction Required	Exceeding the maximum fire compartment volume limit.
W2	E1D2 – Fire hydrants AS2419.1	Additional hose lengths required to provide fire hydrant coverage to the building.
W3	E1D2 – Fire hydrants AS2419.1	Booster assembly is remote from the subject building and not within the site boundary.

APPENDIX A – SA COUNTRY FIRE SERVICE MEETING MINUTES

MEETING MINUTES

Details			
Project/Subject	Southern Barossa Winery & Tourist Accommodation Project Lot 102 Hoffnungsthal Road, Williamstown SA 5351		
Meeting Location	Teams Online meeting		
Meeting Date	13/05/2025		
Commenced	2:00 pm	**Adjourned**	2:30 pm
Meeting Purpose	▪ Introduce the project and building overview to SACFS. ▪ Present the proposed high-level fire services provisions. ▪ Discuss the proposed MBS008 bushfire water storage tank		
Docs. Presented	▪ SA Water Flow Test Result ▪ Architectural Drawings Site Plan & Elevations– Ref: SK1100 Rev G & SK2000 Rev C		
Minutes By	Michael Stefani		
Reference	102734-024	**Pages**	6
Distribution	All attendees	**Revision**	0

Attendees			
Name	**Organisation**	**Ref.**	**Email**
Colin Paton	Country Fire Service	CP (SACFS)	Col.Paton@eso.sa.gov.au
Damien Roland	Country Fire Service	DR (SACFS)	Damien.Roland@eso.sa.gov.au
Melody Young	Turner & Townsend	MY (TT)	Melody.Young@turntown.com
Ned Connelly	Baukultur	NC (BK)	NConnelly@baukultur.com.au
Chris Watkins	Baukultur	CW (BK)	CWatkins@baukultur.com.au
George Economou	Strategic Alliance	GE (SA)	geconomou@stratall.com.au
Rebecca Thomas	Ekistics	RT (EK)	rthomas@ekistics.com.au
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Kyle Rosenzweig	Lucid Consulting Australia	KR (LCA)	kyle.rosenzweig@lucidconsulting.com.au
Trevor Todd	Lucid Consulting Australia	TT (LCA)	trevor.todd@lucidconsulting.com.au
Stefan Ruter	Lucid Consulting Australia	SR (LCA)	stefan.ruter@lucidconsulting.com.au
Michael Stefani	Lucid Consulting Australia	MS (LCA)	michael.stefani@lucidconsulting.com.au

1 Project & Building Overview

Discussion

1.1 LCA provided an overview of the development and the proposed buildings:

- The development is situated at Lot 102 Hoffnungsthal Road, Williamstown illustrated in *Figure **1***.

Figure 1 – Location of the subject site.

- The project consists of construction of a new tourist accommodation building and a winery, as illustrated in *Figure **2*** and *Figure **3***.

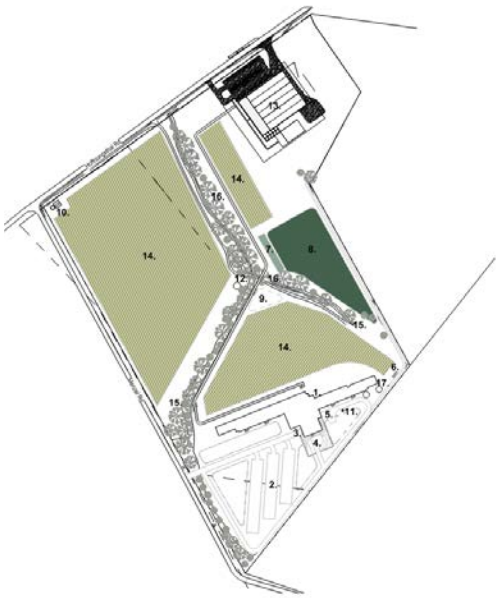


Figure 2 – Site plan overview of the building layouts.

1 Project & Building Overview

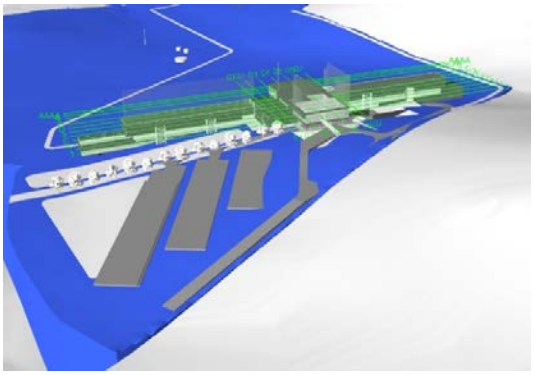


Figure 3 – 3D view of accommodation building.

1.2 LCA confirmed the winery and accommodation buildings share a single title.

Actions	By	Due
1.3 Nil	-	–

2 Structural Fire Resistance & Compartmentation

Discussion

2.1 LCA noted that all fire compartments are within the limitations of type A construction, noting that in the centre of the building three floors are combined via an internal stair.

2.2 SACFS asked for FRLs of floors above fire water tanks if they are to be located below the building. LCA commented building is to be type A construction.

Actions	By	Due
2.3 Design Team to provide more information on FRL pending final equipment location.	Design Team	–

3 Fire Brigade Access and Fire Infrastructure Locations

Discussion

3.1 LCA described the proposed design is for the accommodation and winery buildings to have separate fire infrastructure and that the focus of this meeting is the accommodation building. Investigations are underway to have shared infrastructure for winery and accommodation.

3.2 SACFS requested infrastructure be separated between accommodation and winery due to large travel distance between the two buildings.

3.3 LCA described the proposed combined hydrant/sprinkler system comprising of water storage tanks and pumps, while the water storage tanks of a reduced size due to SA water mains quick fill. Final location of fire services equipment to be confirmed and provided to CFS.

3.4 LCA showed the SA Water flow test results indicating 24L/s at 200kPa.

3.5 LCA described that new fire panel (FDCIE) will be located at the main entrance, location to be confirmed shortly.

3.6 SACFS advised that fire panel located in the pump shed may be suitable if tanks and booster are located in western side of the building.

3.7 LCA described that a water storage tank is required in accordance with MBS008 and requested that the proposed combined hydrant/sprinkler water storage tanks can be utilised to satisfy MBS008.

3 Fire Brigade Access and Fire Infrastructure Locations

3.8 SACFS agreed with LCA proposal of using combined hydrant/sprinkler water storage tanks to satisfy MBS008 provisions.

3.9 LCA presented proposed fire services infrastructure equipment location as shown in red near number 17 in *Figure **4***. LCA presented an alternative location of the equipment under the building as shown in blue on *Figure **4***.

3.10 SACFS expressed equipment location is preferred to be adjacent to the building entry rather than the proposed locations stated in 3.9. SACFS stated preferred booster location is towards centre of building as shown in purple near number 4 in *Figure **4***, to minimise travel distances.

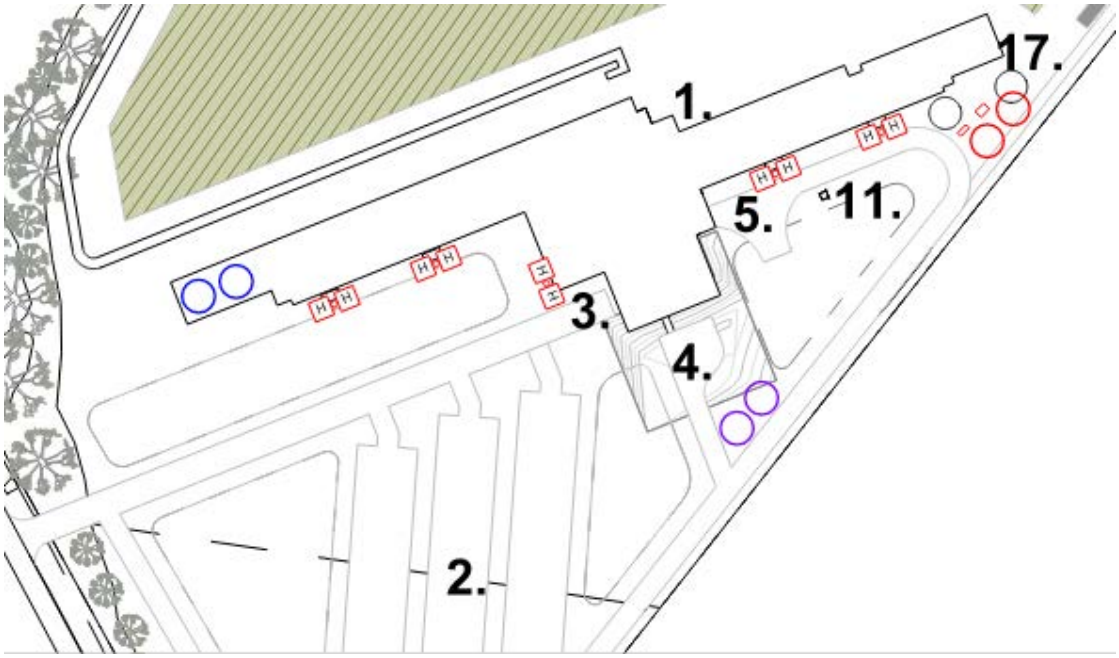


Figure 4 – LCA proposed (depicted in red) and alternative (depicted in blue and purple) infrastructure locations.

3.11 SACFS advised additional booster may be required to accommodate flow requirements exceeding brigade pumping appliance capabilities. Consider providing separate hydrant and sprinkler boosters.

Outcomes

3.12 LCA will investigate alternative tank and booster locations and provide more detailed information regarding fire services equipment locations to SACFS for approval.

3.13 LCA to consider separate hydrant and sprinkler booster assemblies. Hydrant booster to be near site entry, sprinkler booster may be towards back of building.

Actions	By	Due
3.14 Design team to progress design and provide for review to SACFS.	Design Team	–

4 Fire Water Supply

Discussion

4.1 LCA described the fire water supply for the combined hydrant and sprinkler system.

4.2 LCA describe tanks to be provided with infill from SA Water Corporation water main to reduce the water storage tank size.

4.3 LCA propose tanks to also be utilized for the required water storage in accordance with MBS008.

4.4 SACFS requested the tanks to have positive pressure suction.

4 Fire Water Supply		
Outcomes		
4.5 SACFS has no objections with utilising the water storage tank.		
Actions	**By**	**Due**
4.6 Design team to progress design and provide for review to SACFS.	Design Team	–

5 Fire Hydrant System		
Discussion		
5.1 LCA described that the building will be served by a combined hydrant and sprinkler system. Hydrant system will be in accordance with AS2419.1-2021: 5.2 The hydrant coverage to both buildings is achieved through new external and internal hydrants ▪ External hydrants on site will be located near external stairs. ▪ Internal hydrants will be located in the fire isolated stairs.		
5.3 LCA described that the accommodation buildings are required to flow 2 hydrants simultaneously, in accordance with AS2419.1-2021. 5.4 SACFS requested that the booster is located near the centre of the building.		
Outcomes		
5.5 SACFS would prefer hydrant booster to be located near the centre of the building.		
Actions	**By**	**Due**
5.6 Design team to progress design and provide for review to SACFS.	Design Team	–

6 Fire Sprinkler System		
Discussion		
6.1 LCA described that a new automatic sprinkler system in accordance with AS2118.1 is proposed to serve the building. The sprinkler hazard of the new system will be configured as follows: ▪ Function areas, lobby, etc: Ordinary Hazard 3 classification. ▪ Accommodation area: Light Hazard classification.		
6.2 SACFS requested separate boosters for the hydrants and sprinklers due to the required flow and limitations of the SACFS equipment.		
Actions	**By**	**Due**
6.3 Design team to progress design and provide for review to SACFS.	Design Team	–

7 Automatic Fire Detection and Occupant Warning System

Discussion

7.1 LCA described that building will be provided with a new fire panel and AS1670.1 smoke detection and alarm systems throughout.

7.2 LCA described that we will provide a solution for the fire panel location in the main entrance lobby.

7.3 SACFS recommended that the fire panel could be located in the pump room if the fire infrastructure equipment is located at the SACFS preferred location mentioned in 3.10.

7.4 LCA described that building will be provided with occupant warning (horn/speakers).

Outcomes

7.5 SACFS has no objections with the proposed system.

Actions	By	Due
7.6 Design team to progress design and provide for review to SACFS.	Design Team	–

8 Egress Provisions

Discussion

8.1 LCA describes that the design team is currently progressing the design and will provide egress solutions to SACFS for review.

Actions	By	Due
8.2 Design team to progress design and provide for review to SACFS. 8.3 LCA to prepare circulate meeting minutes for records.	Design Team	–

MEETING MINUTES

Details			
Project	Sothern Barossa Winery & Tourist Accommodation (LCE102734) Lot 102 Hoffnungsthal Road, Williamstown SA 5351		
Meeting Format	Online Teams Meeting via MS Teams video conferencing.		
Meeting Date	16/06/2025		
Commenced	3:00 pm	**Adjourned**	3:30 pm
Meeting Purpose	▪ Discussing: o General site arrangement o Active fire protection systems o Brigade access o Egress and extended travel distances o Fire resistance and compartmentation ▪ Discussing the proposed Fire Safety Performance Solutions.		
Docs. Presented	▪ Fire Engineering Concept Mark Up – Ref: LCE102734 Winery Floor Areas 2025.06.16, Rev: 1, Date: 16/06/2025. ▪ Architectural Hotel Markup – Ref: SK_1100_SKETCH PLAN - SITE-I, Rev: 1, Date: 16/06/2025.		
Minutes By	Thomas Verbart		
Reference	SACFS Meeting Minutes [REV 1]	**Pages**	3
Distribution	All attendees and apologies	**Revision**	1

Attendees			
Name	**Organisation**	**Ref.**	**Email**
Col Paton*	South Australian Country Fire Service	CP (SACFS)	col.paton@eso.sa.gov.au
John Barnes*	BuildSurv	JB (BS)	jbarnes@buildsurv.com.au
Trevor Todd*	Lucid Consulting Australia	TT (LCA)	trevor.todd@lucidconsulting.com.au
Thomas Verbart*	Lucid Consulting Australia	TV (LCA)	thomas.verbart@lucidconsulting.com.au

* Denotes attendees who joined the meeting electronically via a video conferencing platform. It is acknowledged that there was technical difficulty during the meeting, resulting in interruptions to the video connection.

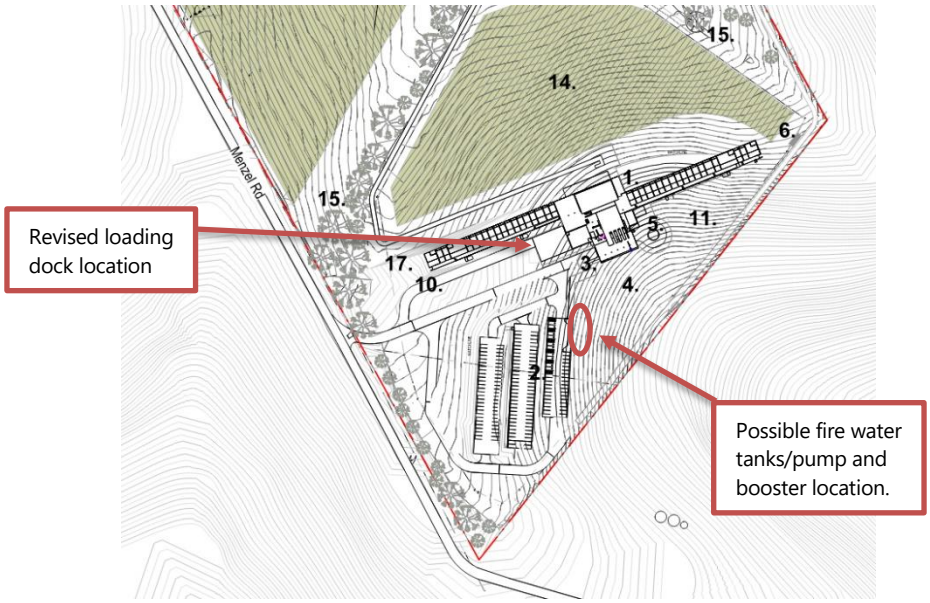
Apologies			
Name	**Organisation**	**Ref.**	**Email**
Hugh Adare	JBG Architects	HA (JBGA)	hugha@jbgarchitects.com
Nick Argyros	Turner & Townsend	NA (TT)	nick.argyros@turntown.com
Melody Young	Turner & Townsend	NA (TT)	melody.young@turntown.com
Stefan Ruter	Lucid Consulting Australia	SR (LCA)	stefan.ruter@lucidconsulting.com.au

1 Project Overview

Discussion

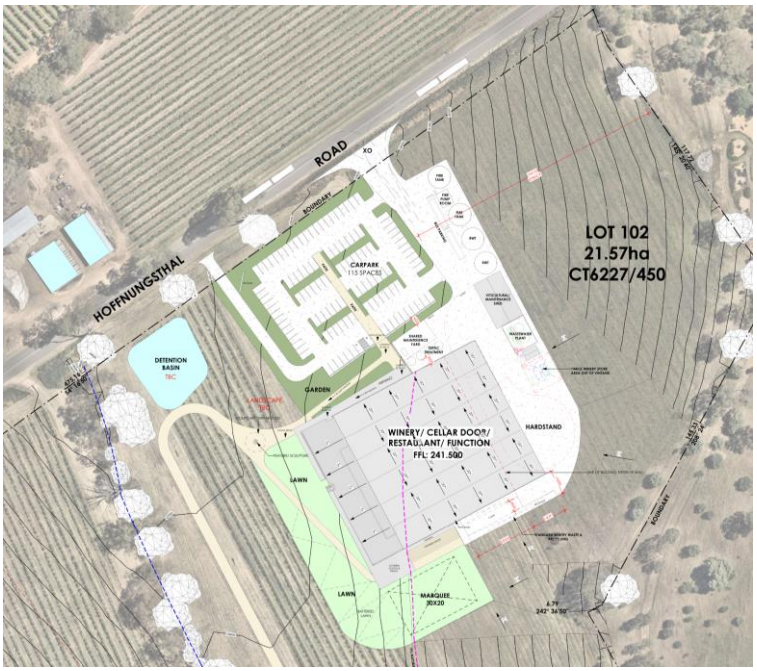
1.1 LCA described that this meeting is a preliminary meeting relating to the Winery, which will focus on minor changes from the initial design previously presented, while touching on the fire services infrastructure of the Hotel project. The purpose of this meeting is to discuss the opportunity for some considerations to be made allowing for efficient fire engineering solutions relevant to the Planning Application.

1.2 LCA outlined the Hotel design has developed; minor changes were made along with the repositioning of the loading dock for the hotel it was also stated the location of the fire tanks and pumps are being adjusted following last meeting. LCA queried an option located next to the bus parking area improving access for CFS. SACFS confirmed that this would be an optimal position for an easy access with the truck and proximity to the building. LCA noted the location will be reviewed with the wider team and preferred solution will be re-presented for CFS review.



Hotel Site Location

1.3 LCA described that the internal plans for the Winery have not changed however, external areas have developed LCA advised fire engineering performance solutions are proposed with the intent that the building does not trigger a large isolated building requirements due to the substantial falls on the east and south sides of the site.



Winery Site Location

1 Project Overview

1.4 LCA describes that the building is approximately 4,700m2, sprinkler protected and that there is a fully compliant hydrant system. However, the volume of the building marginally exceeds the 30,000m^3 limit for type A construction by approximately 5%. The canopy on the north-east face of the building contributes to approximately 840m^2 and 10,000m^3 causing the building to fall within the large isolated building requirements, this would pose difficulty to the level change across the site.

Outcomes

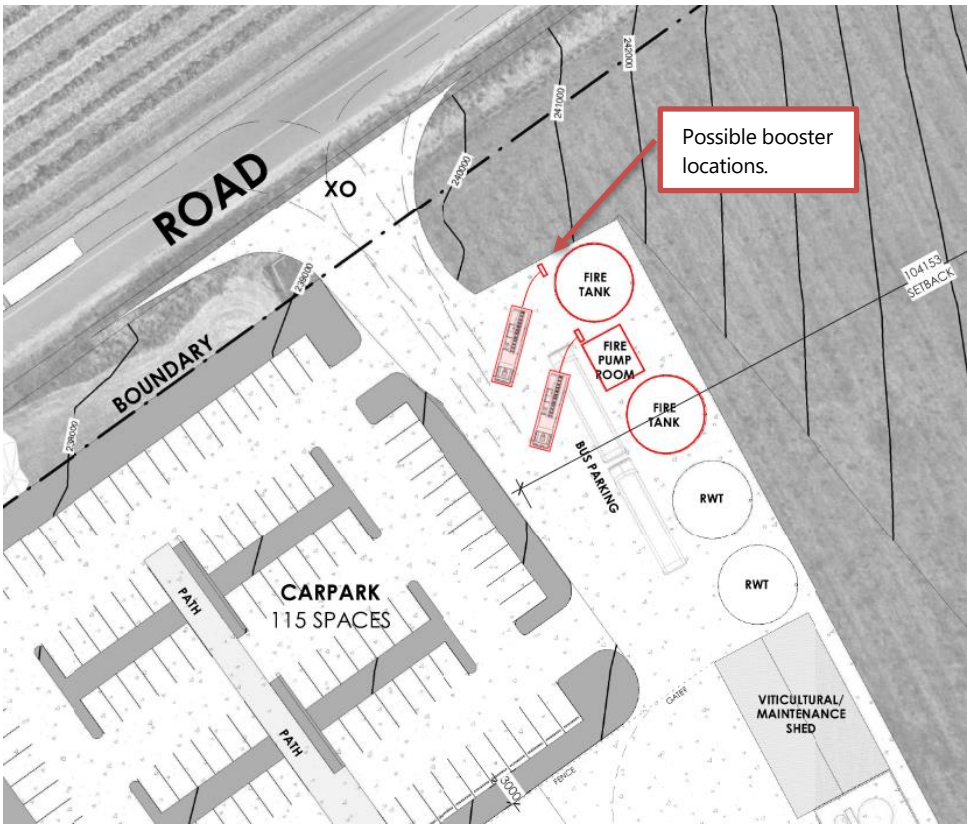
1.5 For information only.

Actions	By	Due
1.6 Design team to finalise booster and fire water infrastructure locations and confirm with SACFS.	ALL	(TBC)

2 Fire Booster Provisions

Discussion

2.1 LCA describes that the system will likely be a combined hydrant/sprinkler system, however in line with last meeting require 2 boosters the hydrant and sprinkler system respectively, these are to be located by the entry and bus parking area. This bus parking area may need to be adjusted in future plan revisions to facilitate an effective positioning of the boosters for CFS pumping appliance accessibility.



Winery Site Location

Outcomes

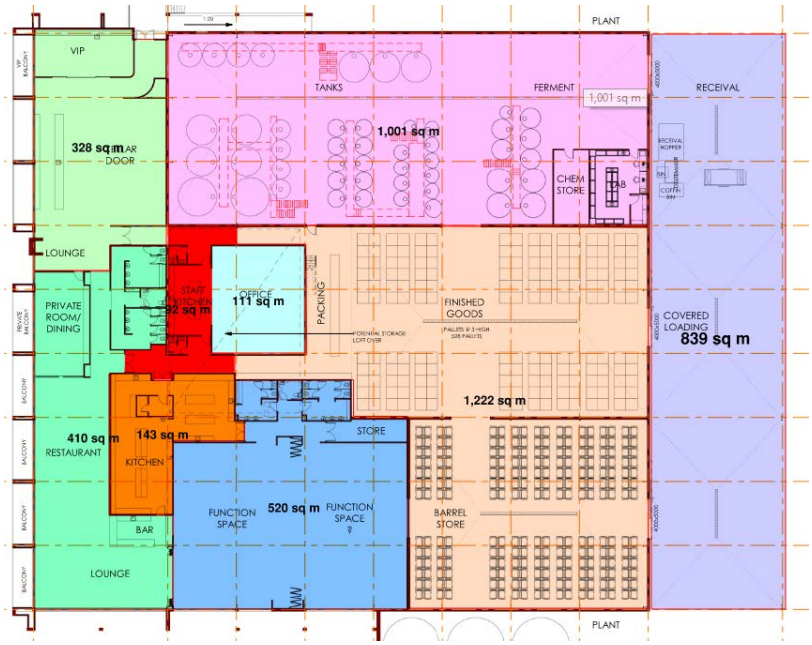
2.2 LCA to note that the location of the bus parking area may be subject to change in future revisions of the design to facilitiate effective accessability for CFS to the boosters that will be positioned alongside it.

Actions	By	Due
2.3 Review bus parking area to maintain clearance to boosters.	JBG	(TBC)

3 Compartmentation and Fire Services Provisions

Discussion

3.1 LCA discussed that the internal areas of the winery including the canopy come to around 4700m^2 and is arranged as a single fire compartment for future flexibility. This is below the limit for type A construction that is proposed, although the volume requirement is exceeded.



Internal Winery Compartment Areas

3.2 LCA advised sprinklers are proposed throughout as the storage areas do trigger sprinklers, however the winery process areas are very low hazard with minimal combustibles. As a result will be provided with Occupant Warning and Fire Brigade monitoring.

3.3 LCA describes that the canopy profile is a covered area for the transportation of goods in and out of the winery. It is a graded roof with no ventilation; however, it is open on all 3 sides. The client has confirmed storage shall not be below the canopy however it will have transient goods moved and some winery process equipment below the canopy.

3.4 LCA proposed a performance solution to exceed the volume limit by approximately 5% based on:

- Winery production areas of low fire load reducing the buildings average fuel load.
- Open nature of external canopy able to vent heat/smoke.
- Sprinklers expected to control a fire.
- Occupants evacuation expected due to occupant warning.

and requested SACFS comment regarding the overall fire load prestned to the SACFS on arrival in a fire event.

3.5 SACFS was satisfied with the building not require the large isolated perimeter access given the information presented above, however requested the hydrant system be arranged as a ring main.

Outcomes

3.6 LCA to develop the fire safety performance solutions considering the building as not triggering large, isolated building requirements and incorporate the hydrant ring main to the design.

Actions	By	Due
3.7 Nil.	–	–