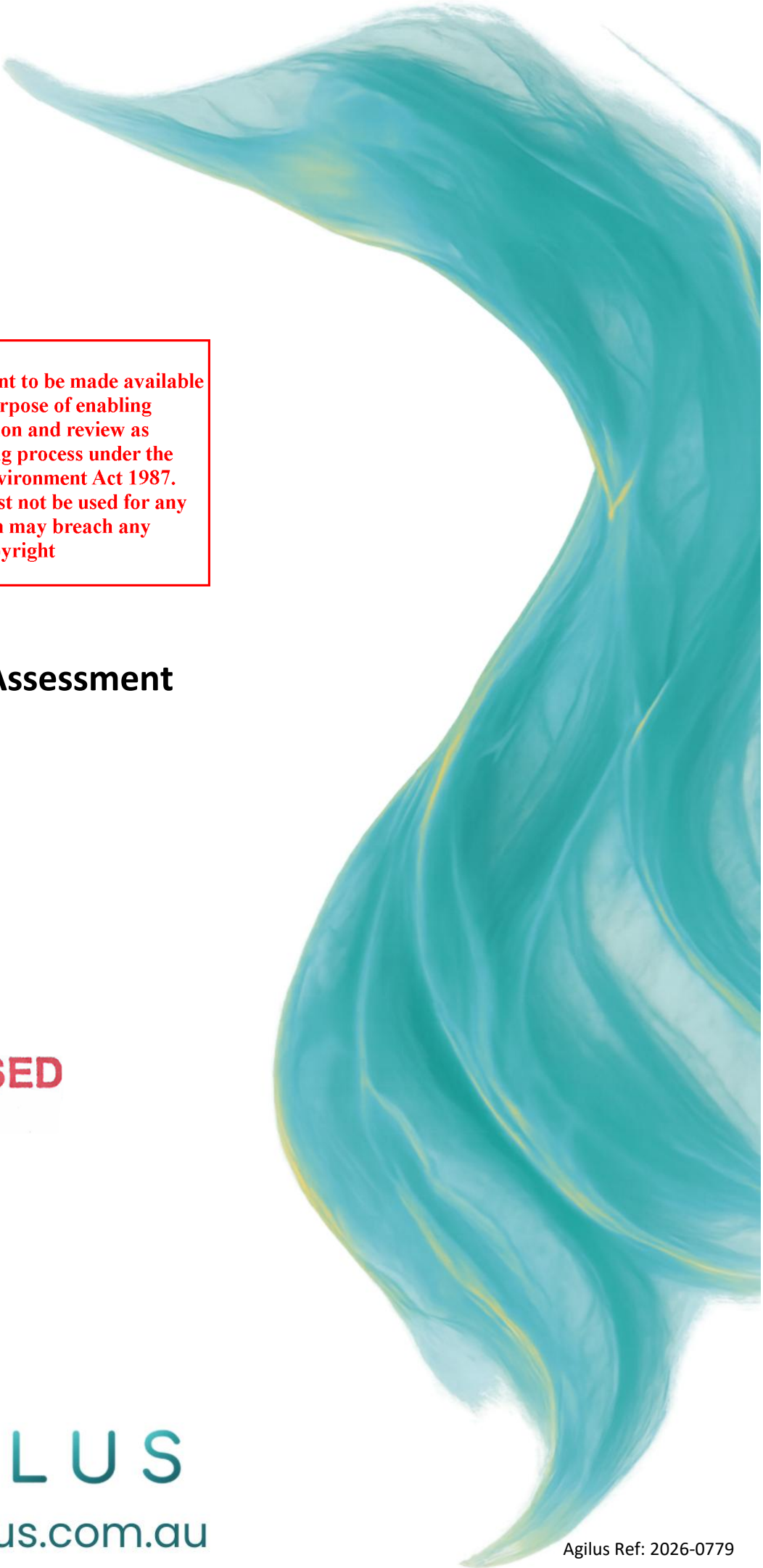




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Bushfire Hazard Assessment

Bendigo BESS

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V2.0	Updated following client review.	14/08/2026	Mitch Baade	Mark Potter
V2.1	Minor updates.	19/08/2026	Mitch Baade	Mark Potter

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1. EXECUTIVE SUMMARY

This Bushfire Hazard Assessment has been prepared to support the proposed Bendigo Battery Energy Storage System (BESS) and respond to the bushfire matters raised by the Country Fire Authority during the planning process. The assessment considered the surrounding landscape, local bushfire hazards, site conditions, likely bushfire scenarios, and the interaction between a landscape bushfire and the proposed BESS.

The assessment found that the site is located within a developed urban environment where bushfire pathways are fragmented by surrounding development. While vegetation to the east presents the primary bushfire hazard, the proposed setback, perimeter firebreaks, defensible space, dedicated fire water supply, compliant emergency access and emergency management procedures reduce the bushfire risk to an acceptable level. The site has been assessed as Landscape Type 2 and achieves a BAL-12.5 outcome for the development.

Subject to implementation of the recommended bushfire protection measures, the proposed development is considered capable of meeting the objectives of Clause 13.02 of the Victorian Planning Scheme while providing an appropriate level of protection for life, property and emergency responders.

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2. INTRODUCTION

Pacific Hydro Australia Developments Pty Ltd, trading as Pacific Blue Australia Developments, proposes to develop the Bendigo Battery Energy Storage System at 20 Hattam Street, Golden Square, Victoria. The proposal comprises an approximately 201 MW / 866 MWh utility-scale battery energy storage system (BESS), associated substation and electrical infrastructure, access arrangements, internal roads, drainage infrastructure, security fencing and an underground connection to the adjoining Bendigo Terminal Station.

The project area covers approximately 6.9 hectares and includes the BESS area, secondary emergency access land along Coonooer Street and the grid connection land within 111–133 Allingham Street. The eastern portion of the BESS area and the secondary access land are affected by the Bushfire Management Overlay under the Greater Bendigo Planning Scheme.

This Bushfire Hazard Assessment has been prepared to provide a site-specific assessment of the bushfire hazards affecting the BESS. The assessment considers:

1. The bushfire hazard within and surrounding the project area.
2. The potential exposure of the BESS and associated infrastructure to flame contact, radiant heat, ember attack and smoke.
3. The potential interaction between a landscape bushfire and a BESS fire.
4. Firefighter access, water supply and emergency response capability during bushfire conditions.
5. Emergency management arrangements during periods of elevated fire danger.
6. Operational and design controls required to reduce risks to life, property, emergency responders and surrounding land.

The assessment has been informed by the proposed site layout plans, associated Fire Safety Study, planning application material, CFA comments and pre-existing (industrial subdivision) Bushfire Management Statement and Bushfire Management Plan. This report supplements the existing fire safety documentation and focuses on the external bushfire hazard and its interaction with the proposed BESS. The findings identify the bushfire protection measures required to inform the planning decision.

The proposed BESS location is shown in Figure 1 and Figure 2. The site in relation to the BPA and BMO is shown in Figure 8 and Figure 9.

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2.1. SITE DETAILS

Municipality	Greater Bendigo
Title details	Lot 2 on PS918032
Zoning	Industrial Zone 1 (IN1Z)
Relevant Regulatory Controls	Bushfire Management Overlay

2.2. SITE DESCRIPTION

Existing use of buildings and works on or near the land	The BESS Area comprises mostly cleared, industrial land that has historically supported mining, informal storage and waste activities. The land forms the southern portion of an approved industrial subdivision, with civil works underway for internal roads, drainage and utility connections. No permanent buildings currently occupy the BESS Area. The AusNet-operated Bendigo Terminal Station and associated transmission infrastructure adjoin the site to the south and southwest, while established industrial buildings and activities occur to the west and south. The Bendigo Regional Park and Coonooer Street adjoin the eastern boundary, and the Melbourne to Bendigo railway line lies west of the site. Residential development occurs to the north and west, with nearby community uses including an education hub, residential aged care facility, community centre and gymnastics facility.
Access to firefighting water supplies:	Multiple hydrants are located along Hattam Street and Allingham Street.
Topography	The surrounding landscape is generally flat.

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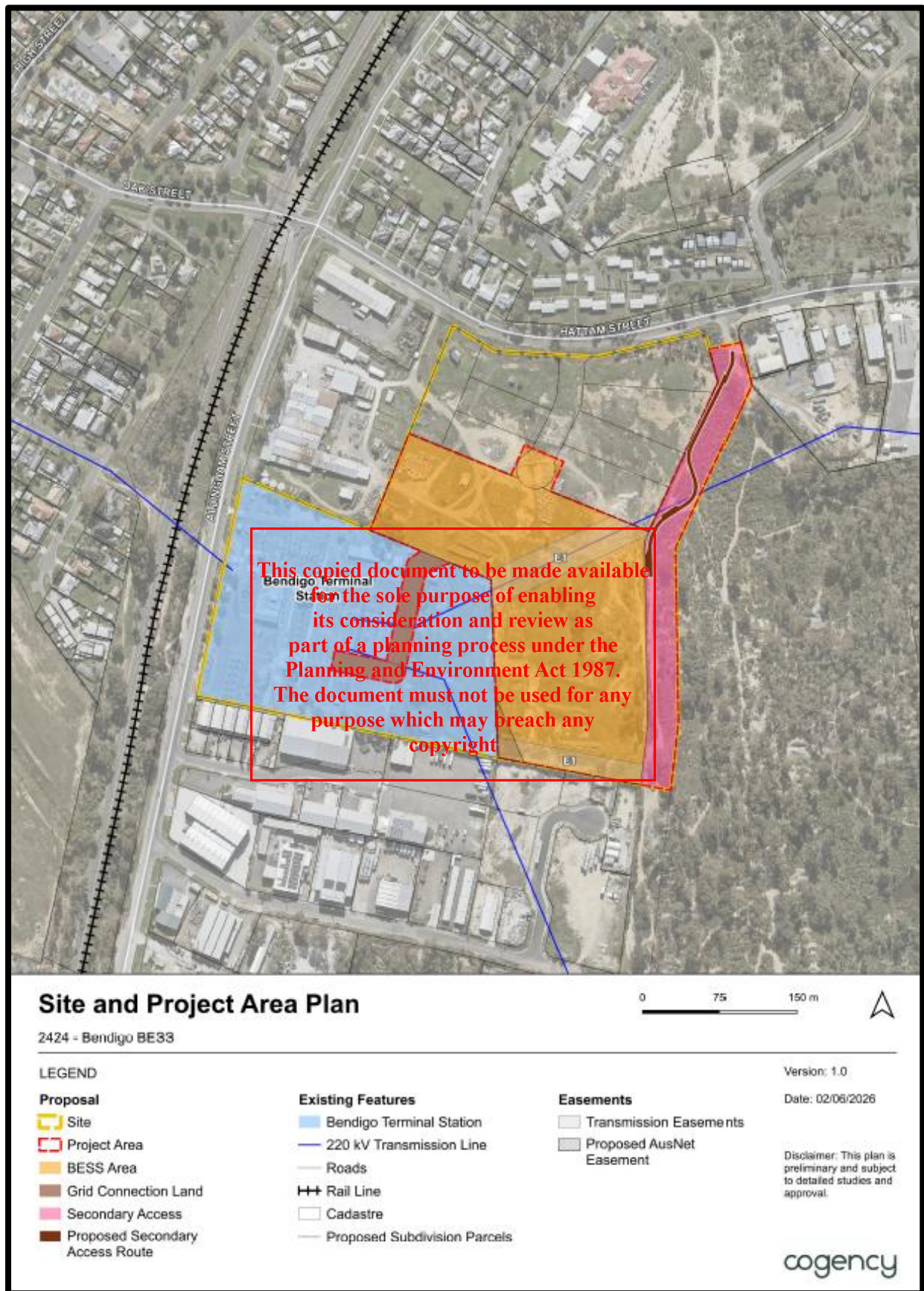


Figure 1 – Site and Project Area Plan



3. PROJECT DESCRIPTION

3.1. DEVELOPMENT OVERVIEW

The Bendigo BESS includes the following key components:

- BESS yard (including battery units and ancillary electrical infrastructure)
- On-site substation (including transformers) and associated electrical infrastructure
- 220 kV underground transmission connection to the Bendigo Terminal Station
- Auxiliary power supplies
- Protection and control equipment
- Operations and maintenance building
- Access points and internal tracks
- Water storage systems and fire-fighting infrastructure
- Security fencing and monitoring systems
- Telecommunications facilities and solid pipe services
- Site compounds and offices, and temporary laydown areas
- Earthworks and native vegetation removal
- Stormwater detention and drainage
- Landscaping / screening.

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3.2. BESS SYSTEM DESCRIPTION

Although the battery supplier has not yet been selected, Battery Units from leading manufacturers incorporate many common design, construction, and safety features. These similarities are driven by the need to comply with recognised Australian and international standards governing battery energy storage systems.

The selected Battery Units will be designed, tested, and certified in accordance with applicable standards, including:

- UL 9540A, Standard for Test Method for Evaluating Thermal Runaway Fire Propagation in Battery Energy Storage Systems.
- UL 9540, Energy Storage Systems and Equipment.
- NFPA 855, Standard for the Installation of Stationary Energy Storage Systems.

The Battery Units will be factory assembled, tested, and commissioned prior to delivery. They will typically be transported to site with a low state of charge and installed using a modular, plug-in configuration. Each Battery Unit will incorporate integrated monitoring, protection, and control

systems that continuously monitor operating conditions, detect abnormal events, and initiate appropriate protective actions. These systems are described in Table 1.

The selected equipment will be supplied with installation, operation, maintenance, and emergency response documentation. This documentation will include the results of product testing, including UL 9540A testing, demonstrating compliance with the performance requirements of UL 9540 and supporting the safe installation and operation of the battery energy storage system.

Table 1 outlines the typical fire safety systems that are likely to be installed within the Battery Units.

Table 1 - Overview of fire safety systems

Fire Safety System	Description
Battery Management System (BMS)	The Battery Management System (BMS) continuously monitors cell and pack voltage, temperature, State of Charge (SOC), and other operating parameters to identify abnormal conditions before they develop into faults. If any parameter exceeds the prescribed operating limits, the BMS automatically isolates the affected Battery Unit and generates an alarm to the monitoring centre. The BMS software is capable of receiving updates to incorporate technological improvements and operational learnings.
Detection and suppression systems	Each Battery Unit will be equipped with smoke, heat, and gas detection, together with an integrated aerosol fire suppression system. These systems provide early detection and automatic suppression of fire within the enclosure. All alarms will report to a central Fire Indicator Panel (FIP) and the site's Supervisory Control and Data Acquisition (SCADA) system for continuous monitoring.
Site Controller and Monitoring (SCADA)	In addition to the protections provided by the BMS, the battery energy storage system will be monitored continuously through a 24-hour remote monitoring centre. Remote monitoring provides real-time diagnostics, fault identification, and technical support without requiring personnel on site. The monitoring centre will support site operators and emergency services during abnormal events. A local SCADA system will also provide site-level monitoring and control.
Emergency system shutdown	The battery energy storage system will include emergency shutdown functionality that is accessible both locally and remotely. Activation of the emergency shutdown will electrically isolate the battery strings and immediately stop battery charging and discharging operations.
IP Rating	The IP (Ingress Protection) rating varies for each manufacturer, but it will likely be elevated in that it will prevent ember ingress into the Battery Units. The IP rating is defined by the international standard EN 60529 (British

	Standard BS EN 60529:1992). The first digit relates to the ability for solids to enter the enclosure and the second digit indicates the ability for liquids to enter the enclosure. The BESS will likely be constructed to a minimum IP of 55, and this is classified as: • No dust or fine particles can get inside the casing, even during long exposure in dirty or sandy areas. • Water projected by a nozzle (6.3 mm) against enclosure from any direction shall have no harmful effects. In the unlikely event of a bushfire in the surrounding vegetation that develops embers, the IP rating will likely reduce the ability for embers to enter the Battery Unit.
Explosion prevention	The selected Battery Unit will comply with Clause 9.6.5.1.5 of NFPA 855 through compliance with either NFPA 68 or NFPA 69. The explosion protection system will be designed to safely relieve overpressure and direct explosive forces, or flammable gases away from the Battery Unit, reducing the risk to adjacent equipment and emergency responders.

3.3. SITE LAYOUT AND SEPARATION DISTANCES

The layout of the BESS has been developed to manage bushfire risk through appropriate physical separation between the assets and the bushfire hazard to the east. The BESS will be exposed to a radiant heat flux of $<12.5\text{kW/m}^2$.

A key recommendation of this report will be to manage this separation as an area consistent with defensible space.

In addition to separation distances, the layout incorporates:

- Perimeter fire breaks and non-combustible surfaces
- Clear access pathways for emergency services
- Defined exclusion zones around key infrastructure

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The finished bench level for the easternmost row of BESS units is approximately 2 to 3 metres below the natural ground level along the eastern boundary. This level difference has not been relied upon in the BAL or separation assessment. This would change the viewing factor and line of sight of the bushfire, reducing the radiant heat exposure onto development.

3.4. FIRE PROTECTION AND WATER SUPPLY INFRASTRUCTURE

The Project includes dedicated fire protection infrastructure designed to support both on-site fire management and emergency response activities.

A dedicated fire water supply will be provided for the development and will have a minimum effective capacity of 576 kL. The water supply will be connected to a hydrant system designed in accordance with AS 2419.1, ensuring that all areas of the BESS can be reached by firefighters operating from firefighting appliances.

3.5. ACCESS AND EMERGENCY RESPONSE PROVISIONS

The site has been designed to facilitate safe and effective emergency response. Primary access will be via the approved subdivision cul-de-sac off Hattam Street. This connects to an internal road network suitable for heavy emergency vehicles. These internal roads provide access to key areas of the development, including the BESS and associated fire protection infrastructure, and are designed to support appliance positioning and circulation throughout the site.

In addition to the primary access point, a secondary emergency access and egress point is provided at the north-eastern extent of the site. This access supports operational redundancy and provides an alternative pathway for emergency vehicles or personnel to exit or reposition during a thermal runaway incident.

While it is acknowledged that the secondary access method may be compromised during a bushfire, it is assumed that the primary accessway will be unaffected during a bushfire. Similarly, suitable separation is provided from the vegetated areas to ensure that fire does not spread to the vegetated areas during a thermal runaway event (or vice versa). As such, the provision of the secondary access is considered suitable.

While the primary access point provides all-weather access, the secondary access is intended for emergency use and may be subject to seasonal or operational constraints. Notwithstanding this, the overall access arrangement ensures that emergency services are able to safely enter, operate within, and exit the site.

Circulation areas are incorporated within the layout to enable safe manoeuvring of firefighting appliances, including turning provisions that minimise the need for reversing movements. Access to the BESS installation is provided from multiple sides where practicable, supporting effective response under a range of incident conditions.

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4. BUSHFIRE RISK IN SOUTHEAST AUSTRALIA

Southeast Australia, particularly regions of Victoria, New South Wales, and parts of South Australia and Tasmania, experiences significant bushfire risk, especially during the summer months. Several factors contribute to elevated fire dangers in this region:

Weather conditions

Elevated bushfire danger is often associated with specific weather conditions and wind patterns that can contribute to the rapid spread and intensification of fires. Some of the key weather conditions and wind directions that increase bushfire risk include:

Hot and Dry Weather: High temperatures combined with low humidity levels result in dry vegetation, which is more susceptible to ignition. During periods of hot and dry weather, fires can start more easily and spread rapidly.

Strong Winds: Strong winds can significantly increase the rate at which fires spread. Wind can carry embers long distances, causing spot fires ahead of the main fire front and making containment efforts more challenging. Wind-driven fires can quickly change direction and intensity, posing a greater threat to communities and firefighters.

Wind Direction: The direction from which the wind is blowing can have a significant impact on fire behaviour and spread. In some cases, certain wind directions can funnel fires into narrow corridors, increasing the speed and intensity of the bushfire.

Wind Changes: Sudden changes in wind direction or speed can create unpredictable fire behaviour and make firefighting efforts more difficult. Wind shifts can cause fires to change direction rapidly, threatening areas that were previously considered safe. This issue is more prevalent in bushfires in grassland areas where sudden wind changes can cause an immediate change in direction.

Drought Conditions: Prolonged periods of drought lead to drier vegetation and soil moisture levels, increasing the overall flammability of the landscape. During drought conditions, fires can ignite more easily and spread more rapidly, posing a greater risk to communities and ecosystems.

Vegetation

The predominant vegetation in southeast Australia includes eucalypt forests, scrublands, and grasslands. Eucalypt forests, in particular, contain highly flammable oils in their leaves, which can easily ignite and spread fires. Dry grasslands and scrublands also provide ample fuel for fires to propagate.

Slope

Steep slopes and rugged terrain are common in many parts of southeast Australia. Slopes increase the speed at which fires can spread, as flames can travel more quickly uphill due to preheating of fuel and the influence of wind. Additionally, fires burning downhill can create their own wind patterns, further accelerating their spread.

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History of Fire (planned and unplanned) Activity

Many areas in southeast Australia have a history of recurrent bushfires and planned burning activities, which if not regularly occurring, can lead to the accumulation of dry vegetation and debris. This accumulated fuel increases the intensity and severity of fires when they occur, as well as making firefighting efforts more challenging.

During periods of elevated fire danger, authorities often issue warnings and implement fire bans to mitigate the risk. Community preparedness, including fuel reduction efforts, maintaining defensible space around properties, and having a bushfire survival plan in place, are crucial for minimising the impact of bushfires in southeast Australia.

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5. BUSHFIRE HAZARD LANDSCAPE ASSESSMENT

5.1. INTRODUCTION

A Bushfire Hazard Assessment is a key component of risk assessment, as outlined in Clause 13.02-1S of the Greater Bendigo Planning Scheme. The requirements outline the need to consider and assess the bushfire hazard on the basis of:

- Landscape conditions (20 kilometres)
- Local and neighbourhood conditions (5 kilometres)
- The site for the development

In addition to this assessment, analysis of past bushfire history and the development of likely bushfire scenarios supports the response requirements of Clause 13.02-1S and 53.02-6.

5.2. FIRE DANGER WEATHER

The Fire Danger Index (FDI) is a measure used to estimate the expected danger of fire conditions on a given day. It combines temperature, humidity, wind speed, and the dryness of the vegetation to estimate the fire danger if a fire started on that day. The higher the FDI, the more intense and fast moving a bushfire is expected to be.

The Fire Danger Index used across Victoria (except for alpine areas) is FDI 100.

Fire weather data from the Bendigo Airport Weather Station located approximately 7.8km northeast of the site (the closest weather station) (AWS 81123), was used to develop site specific fire weather metrics for analysis. This weather station includes Forest Fire Danger Index (FFDI) data from November 1993 to March 2026.

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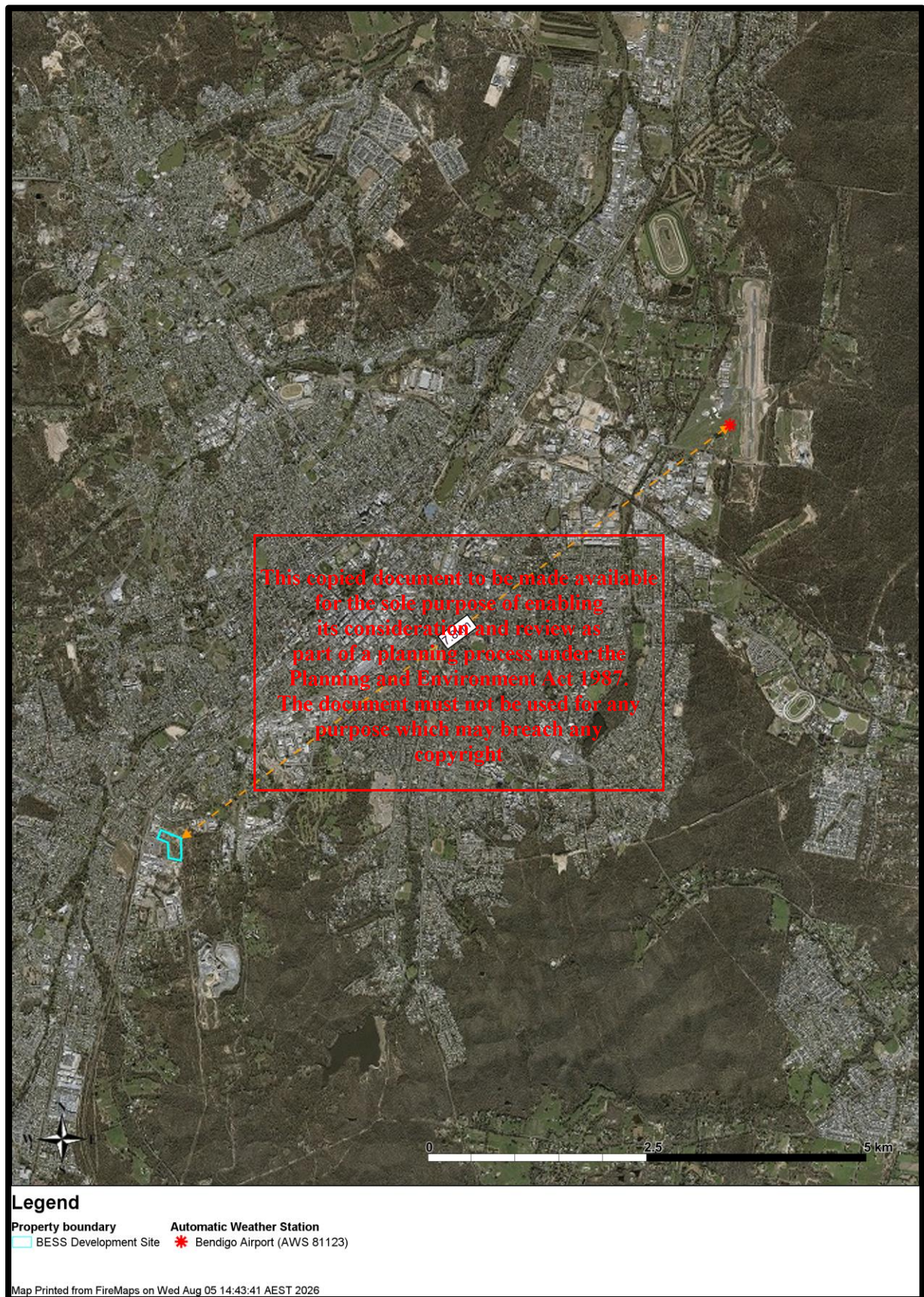


Figure 3 - Closest Automatic Weather Station

Figure 4 shows the maximum FFDI recorded between 1993 and 2026 for each wind direction at Bendigo Airport. The most severe fire weather is associated with north-westerly and westerly winds. The highest recorded FFDI was 109 during north-westerly winds, followed by 89 during westerly winds and 78 during northerly winds.

Lower maximum FFDI values were recorded during easterly and south-easterly winds, at 33 and 44 respectively. South-westerly and southerly winds produced maximum FFDI values of 57 and 51. These results indicate that bushfires approaching from the north-west, west or north warrant the greatest consideration. A south-westerly wind change also warrants consideration, as it could alter the direction and width of an established fire front.

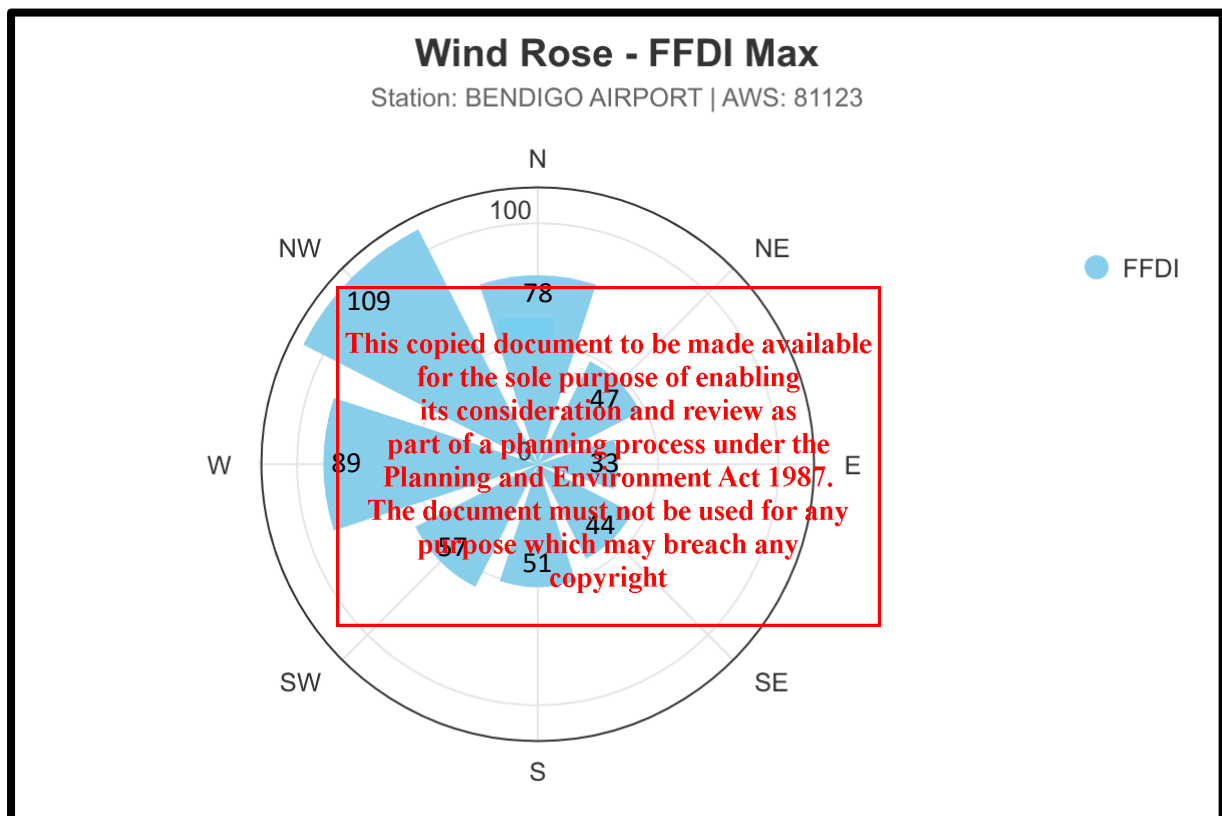


Figure 4 - Wind Rose – Maximum FDI observed by wind direction

The annual FFDI box plot shown in Figure 5 summarises the distribution of daily FDI values recorded between 1993 and 2026. The annual maximum FFDI recorded at Bendigo Airport varies considerably between years. The highest value occurred in 2009, reaching approximately 109. Other notable years include 1994, 1998, 2019 and 2023, when maximum FFDI values reached approximately 75 to 80. Maximum values of around 65 to 75 were also recorded in 2004, 2005, 2012, 2014, 2015, 2016, 2018 and 2026.

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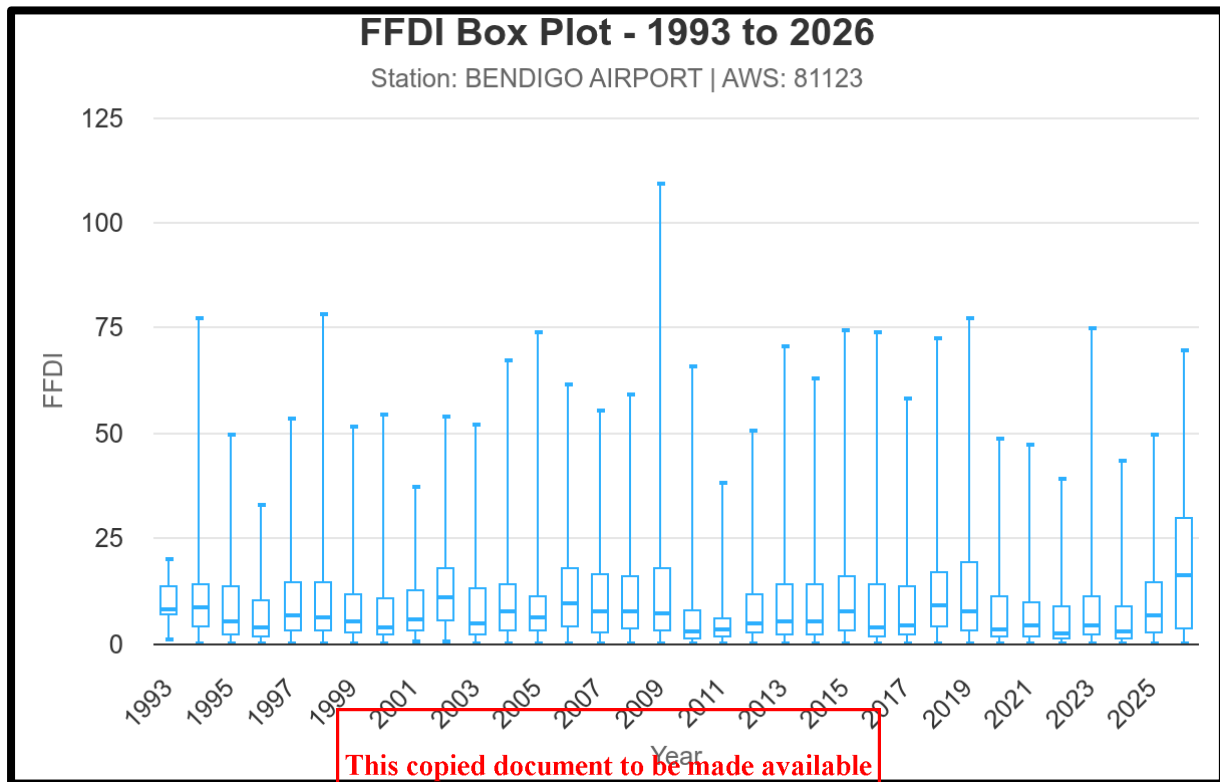


Figure 5 - FFDI Box Plot

5.3. BUSHFIRE HISTORY

The historical information provided by DEECA indicates that bushfires have occurred in the surrounding landscape but have not impacted the property. The occurrence of bushfires in the landscape is generally limited.

The most significant bushfire was the 2009 bushfire that occurred approximately 2.8km north of the site. This bushfire occurred on 7 February 2009 in Maiden Gully, and burned through gently rolling hills that border the city's western suburbs. The area where the bushfire impacted consists of numerous former gold diggings that are now public open space interspersed between suburban blocks. One fatality occurred, a number of people were injured, and 58 houses were destroyed.¹

The next most significant bushfire occurred in 1961 and occurred approximately 3.7km east of the site. Other bushfires have occurred in the surrounding landscape, but are generally limited in size.

Bushfire history is shown in Figure 6. Due to the low occurrence of bushfires in the landscape, the bushfire risk based on historical events is considered low.

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¹ http://royalcommission.vic.gov.au/Finaldocuments/volume-1/HR/VBRC_Vol1_Chapter13_HR.pdf

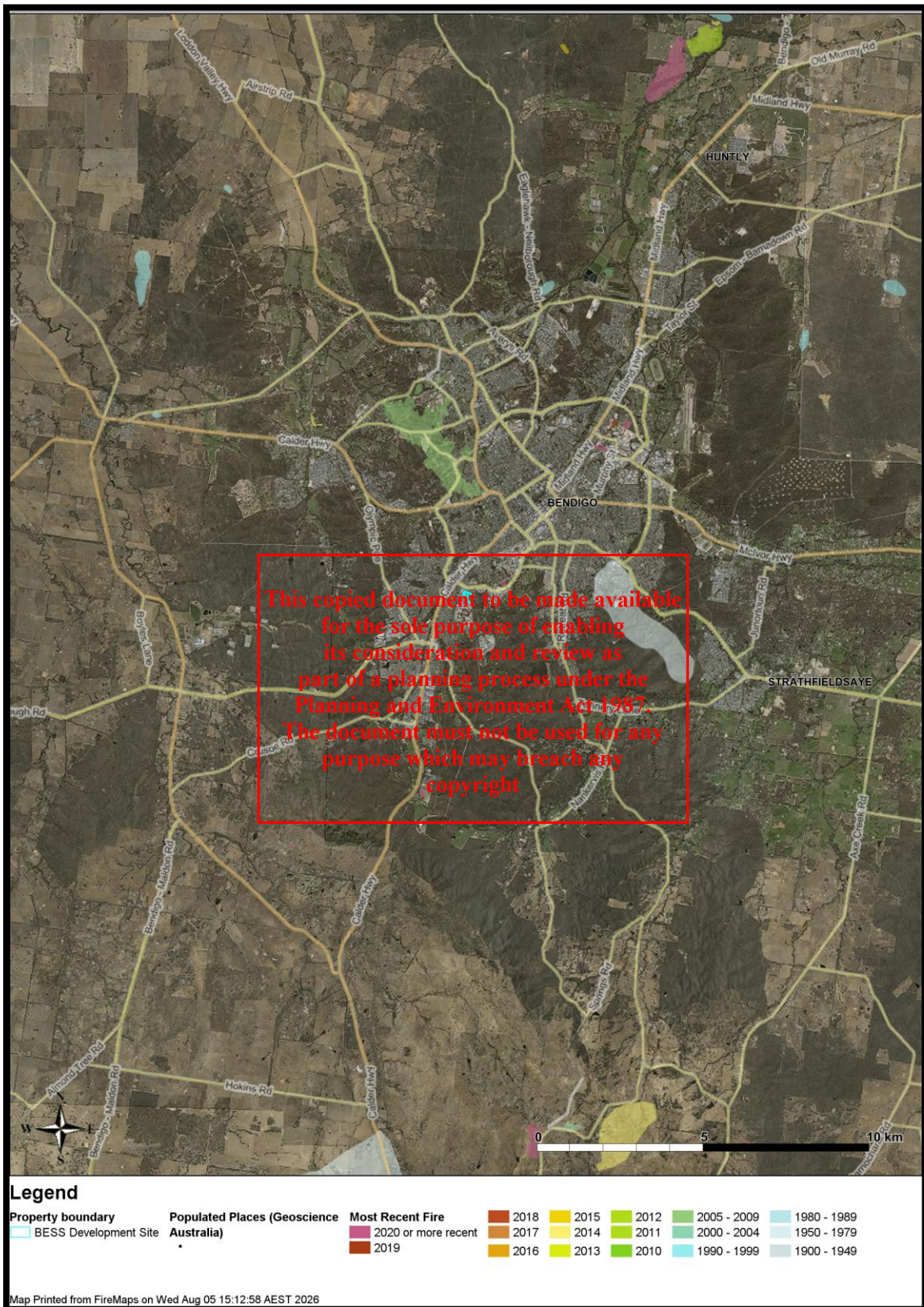


Figure 6 - Bushfire history in the surrounding landscape

5.4. VEGETATION MANAGEMENT

There are numerous planned burns scheduled to occur in the surrounding area between 2026 – 2028. There is a planned burn scheduled to occur along Coonooer Street, directly adjacent to the site. The planned burn activity within the surrounding landscape is likely to lessen the effects of bushfire.

The Joint Fuel Management Plan is shown in Figure 7.

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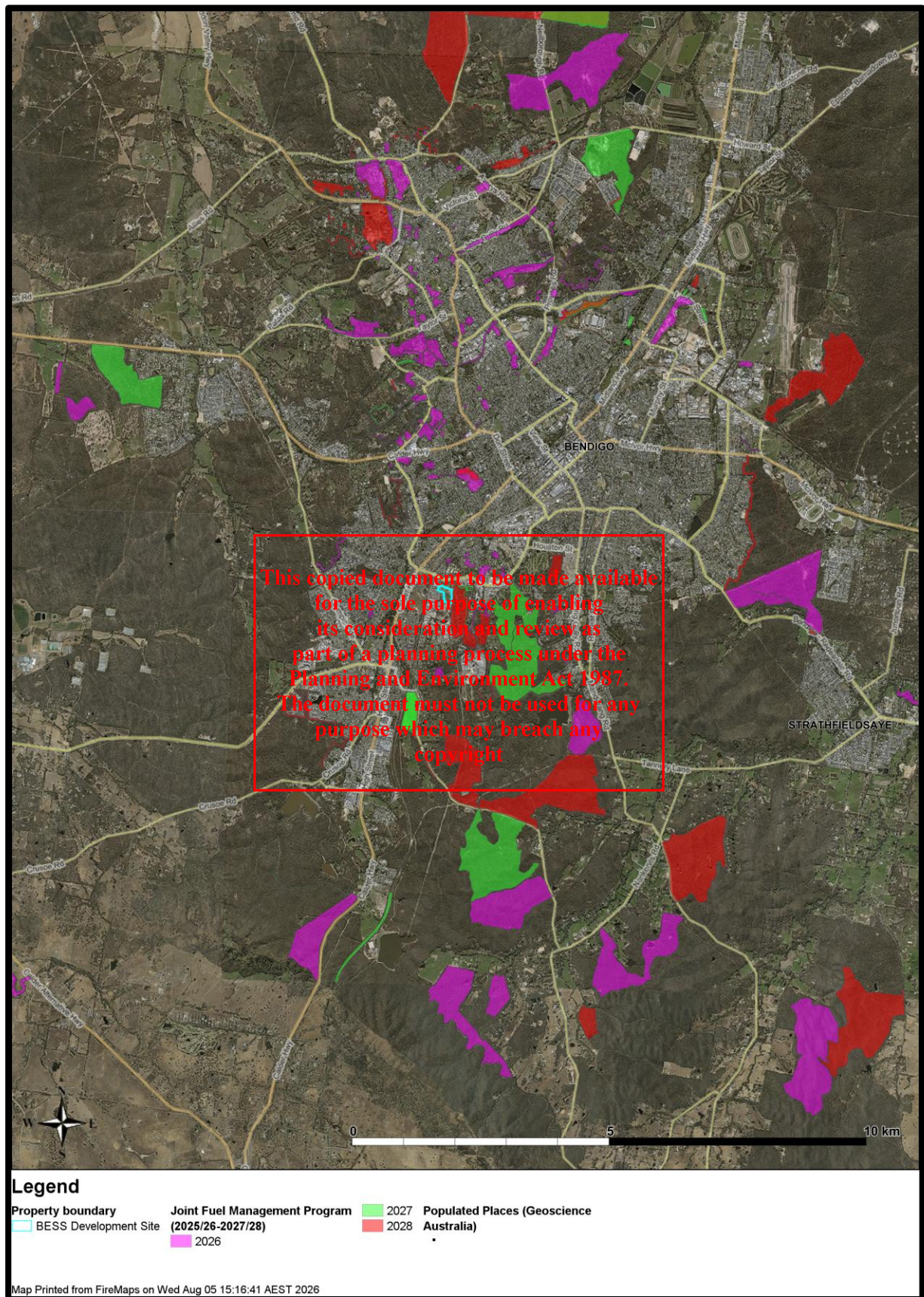


Figure 7 - Joint Fuel Management Plan (2025/26 - 2027/28)

5.5. ACCESS AND EGRESS

The site is accessible from Hattam Street and will comprise a primary accessway through the approved subdivision cul-de-sac, and a secondary access path along Coonooer Street on the eastern side of the site.

The BESS site will be staffed primarily during the construction phase. Once the operational phase begins, the BESS site will be operated remotely and will not be permanently staffed.

Where occupants are on site, there are neighbourhood safer places in the vicinity. The closest neighbourhood safer place is located at Dower Park (Cnr Station Street and Olympic Parade, Kangaroo Flat). This safer place is approximately 2.9km (6 minute drive) from the site and accessible by travelling southwest along Midland Highway.

Alternatively, Queen Elizabeth Oval (Cnr View Street and Banard Street, Bendigo), is located 4.2km (9 minutes drive) from the site and accessible by travelling northeast along Midland Highway.

If transport is unavailable, safer, more developed areas are available by walking west from the site.

There are multiple safer places throughout the surrounding landscape for occupants to evacuate to during a bushfire.

Egress destinations will be made available under the Emergency Management Plan that the site will operate under.

5.6. VEGETATION

Within 150m of the site, there are areas of woodland and shrubland to the east. For conservatism, the entire eastern area will be treated as woodland due to the potential to regrow. The broader landscape contains forested areas / woodland areas that are present to the southeast and approximately 2km to the east.

To the west, approximately 2km of built-up areas provide separation from the vegetated landscape. There are vegetated pathways for a fire to approach from the southeast. A southeasterly bushfire approach will generally carry lower fire danger within Victoria, and this is evidenced in Section 5.2.

5.7. BUSHFIRE PRONE AREA

The Bushfire Prone Area (BPA) is introduced where land is subject to significant risk from bushfire. This control requires any new dwellings and other buildings to be assessed against AS 3959:2018 *Construction of Buildings in Bushfire Prone Areas*. In the context of this development, the presence of the BPA triggers the requirement to consider the relevant sections of the National Construction Code.

This development is within the BPA as shown in Figure 8.

5.8. BUSHFIRE MANAGEMENT OVERLAY

The Bushfire Management Overlay (BMO) applies to land that has been assessed as being at extreme risk from bushfires. The BMO triggers the need for a planning permit for certain

developments and requires new developments to include appropriate bushfire protection measures including defensible space, construction requirements, access and water supply.

The BMO is a planning control applied to land with the potential to be affected by bushfires. New development and uses in the BMO may require a planning permit. This ensures that bushfire hazards, such as vegetation, slope and site access are assessed, and that bushfire protection measures are implemented to manage the risk.

The eastern portion of the site is within the BMO. The site in relation to the BMO is shown in Figure 9.

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Figure 8 – Subject site in relation to the BPA



Figure 9 – Subject site in relation to the BMO

5.9. LIKELY BUSHFIRE SCENARIOS

The analysis of the surrounding landscape and the development of bushfire scenarios are important phases of the assessment of bushfire risk to a site. This assessment considers all aspects; however, history shows us that bushfires are more likely to impact on the property from a north-westerly or south-westerly direction. The south-westerly impact usually occurs after a change in wind direction. This is evidenced by the fire weather analysis done in Section 5.2, noting that the south-westerly wind impact carries a substantially lower FDI than the north-westerly impact.

These two fire scenarios cause the greatest amount of damage, including loss of life, in south-eastern Australia during bushfire events. Table 2 outlines the hazard assessment relating to the proposed development.

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Table 2 - Overview of bushfire hazard and likely scenarios

Bushfire hazard type	Description	Scenario/s	Considerations
Landscape conditions (20 kilometres)	The broader landscape surrounding Bendigo consists of forested / woodland landscapes that could support bushfire activity. To the northwest, there are forested/woodland areas that are broken up by urbanised areas within Maiden Gully. Vegetated areas exist to the south of the site, and can form a continuous fire run towards the site for approximately 8km. However, there are developed areas south of the site that would limit south-westerly impacts. Refer to Figure 10 for further detail.	A fire could start within the forest/woodland area to the northwest and continue for approximately 11km towards the site. However, developed areas within Maiden Gully would likely stop a bushfire from continuing towards the site. Once the bushfire reaches the local area, approximately 2 km of developed areas will limit bushfire impact from the northwest. South-westerly wind impacts generally occur after a north-westerly wind change. This generally occurs in the late afternoon, when there are lower fire danger conditions. However, it can often create dangerous conditions when fire flanks are not controlled. If a fire approached under north-westerly winds it could approach the site for approximately 5 km before impacting the local area. However, developed areas within the immediate area to the southeast would limit bushfire impact on the site. Once a bushfire impact is limited to a fire flank occurring under south-westerly winds.	The presence of fuel-reduced areas, including roads and residential areas, will reduce bushfire activity. Due to the urbanised nature of Bendigo, bushfire intervention would likely be rapid.
Local conditions (5 and 1 kilometres)	Within five kilometres of the site, the landscape to the northwest consists of urbanised areas within 2km of the site, followed by treed areas beyond that.	Vegetation to the northwest could support localised bushfire activity. As the fire approaches the local area, it could burn until it reaches the urbanised area approximately 2km from the site. Beyond this, there is limited vegetation within 2km of the site that could support the bushfire to continue towards the site under a north-westerly wind impact.	As above. It is likely that intervention will occur quickly if a fire did occur due to the urbanised nature of the area. If the vegetation on nearby properties is not maintained during the fire danger period, the

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Bushfire hazard type	Description	Scenario/s	Considerations
	To the southwest, treed areas are present that could provide a pathway towards the development. Urbanised areas within 1km of the site make direct south-westerly impact unlikely. Refer to Figure 11 for further detail.	If a fire approached under a south-westerly wind impact, it could approach with limited interruption from landscape features until approximately 1km from the site. Urbanised areas within 1km of the site would limit bushfire impact from the southwest. However, the fire could continue burning southwest, and a fire flank could impact the site from the east. Alternatively, an unlikely easterly wind change could also result in the fire approaching the site from the east.	Council Municipal Fire Prevention Officer or CFA Chief Officer have powers to require vegetation to be managed. Fuel reduction activities are scheduled to occur within the treed area to the south/southeast.
The site for the development	The site of the development will be managed in a minimum fuel condition.	After the establishment of the development, the ability for fires to occur on the site is limited.	As above.

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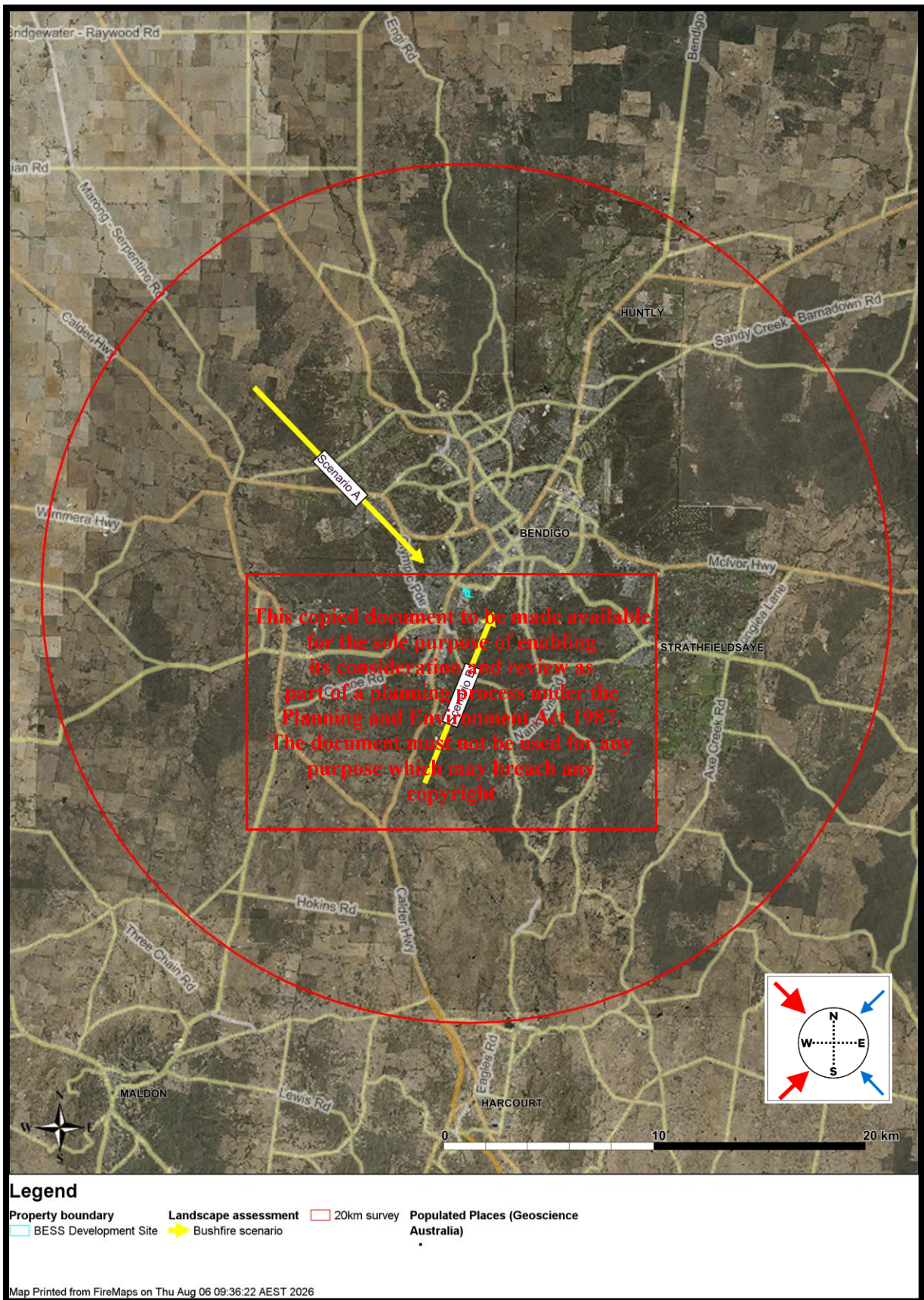


Figure 10 - 20-kilometre landscape assessment and likely scenarios.

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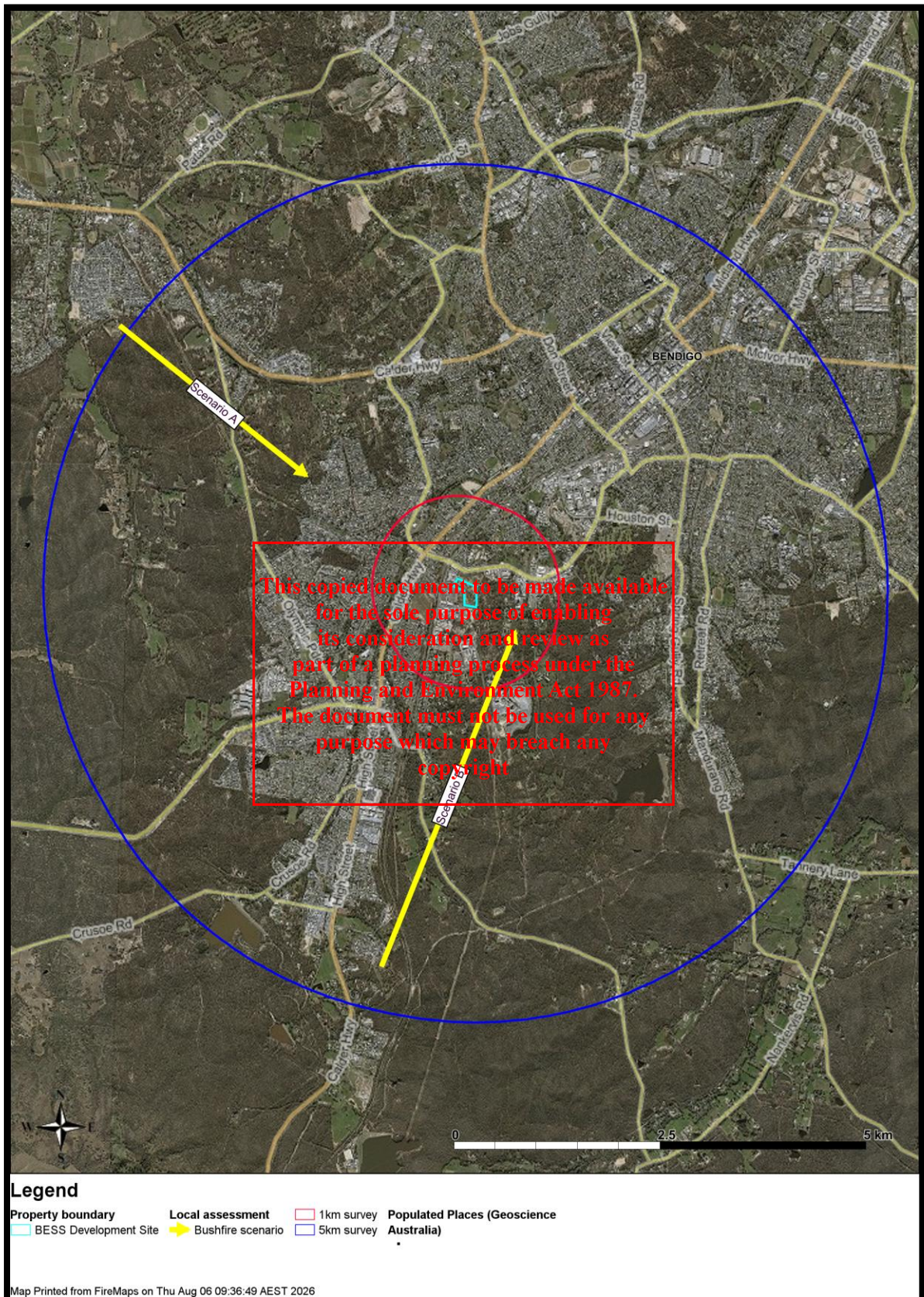


Figure 11 – Five and One kilometre landscape assessment and likely scenarios.

5.10. LANDSCAPE TYPE ASSESSMENT

The determination of the landscape type enables the consideration of other treatments depending on the level of risk. These treatments may include additional construction requirements, vegetation management or other solutions. Whilst the determination of a landscape risk level is part of this analysis, the determination of the need for additional treatments will be considered as part of further assessments within this Report.

As indicated in Table 3 and in accordance with the Planning Permit Applications in a BMO or BPA Guideline², the landscape has been determined to be Type 2.

Direct bushfire impact from the landscape is unlikely as the vegetation within the local area is highly fragmented by urban development. Direct bushfire attack from the east is possible, but this will likely be from a fire flank or easterly wind change, which typically has lower fire danger conditions.

There are Safer Places in the surrounding landscape, and egress would be easily available for any people attending the site.

As such, the landscape has been determined to be Type 2.

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² https://www.planning.vic.gov.au/_data/assets/pdf_file/0029/639506/Planning-Permit-Applications-in-a-BMO-or-BPA-Guidelines.pdf

Table 3 - Landscape type descriptors

Landscape Type Descriptors	
Type 1	This landscape has minimal potential for extreme bushfire behaviour and is therefore 'lower risk'. Bushfire protection measures are required as there is still a risk of bushfire impacting development and communities: • There is little vegetation beyond 150 metres of the site (except grasslands and low threat vegetation). • Extreme bushfire behaviour is not possible. • The type and extent of vegetation is unlikely to result in neighbourhood-scale destruction of property. • Immediate access is available to a place that provides shelter from bushfire. • Immediate reliable access is available to an area of site that provides better protection and shelter from the effects of bushfire. • Standard bushfire protection measures adequately address the bushfire risk. • Strategic planning proposals should be directed to these locations. They are likely to be capable of meeting the state bushfire policy when appropriate bushfire protection measures are applied.
Type 2	In Landscape Type 2, low fuel areas can be reliably accessed and the standard bushfire protection measures when applied will usually result in an acceptable level of risk: • The type and extent of vegetation located more than 150 metres from the site may result in significant fire behaviour but will unlikely produce local and neighbourhood-scale destruction. • Bushfires can only approach from one aspect and the site is in a suburban, township or urban area managed in a minimum fuel condition. • Access is readily available to a place that provides shelter from bushfire. This will usually be within the surrounding developed area. • Strategic planning proposals might be considered in these locations, where risks can be acceptably reduced, and alternative lower risk areas have been considered. Growth and development should be directed away from the bushfire hazard interface, where possible. The Design Guidelines: Settlement Planning at the Bushfire Interface (DELWP & Country Fire Authority, 2020) should be considered when responding to bushfire policy objectives and applying bushfire protection measures.
Type 3	Development in Landscape Type 3 areas require caution as there may be the potential for extreme bushfire behaviour. These areas are unlikely to be suitable for settlement growth, large-scale subdivision, or vulnerable uses. Bushfire can approach from more than one aspect. • The type and extent of vegetation located more than 150 metres from the site may result in local and neighbourhood-scale destruction as it interacts with the bushfire hazard on and close to the site. • Bushfire can approach from more than one aspect. • The site is in an area that is not managed in a minimum fuel condition. • Reliable access to an area of land that provides shelter from bushfire is not certain. • Vulnerable uses will likely require enhanced bushfire protection measures and may not be appropriate in these landscapes. • Strategic planning proposals for new or intensified development and growth are less likely to be approved in these areas, particularly when other lower risk locations are available. Generally, strategic planning proposals in these areas should only be considered where the purpose is incidental to the location.
Type 4	Landscape Type 4 areas are high risk locations. Extreme bushfire behaviour is expected, and low fuel areas are unlikely to be available. Directing settlement growth and new development to these locations as part of strategic planning proposals is not consistent with the state bushfire policy. Fires have hours or days to grow and develop before impacting. • The broader landscape presents an extreme risk. • Fires have hours or days to grow and develop before impacting. • Evacuation options are limited or not available. • Development in these landscapes should be carefully considered and will likely require enhanced bushfire protection measures. • Strategic planning proposals that direct development or growth to these areas, regardless of scale are not supported by state bushfire policy.

6. BUSHFIRE HAZARD SITE ASSESSMENT

All vegetation within 150m of the site was classified in accordance with Clause 2.2.3 of AS 3959-2018. Each vegetation plot with the potential to influence the Bushfire Attack Level is identified below, along with any areas that have been identified as meeting the exclusions outlined within clause 2.2.3.2.



Figure 12 - Photo locations and vegetation classifications

6.1. POTENTIAL BUSHFIRE IMPACTS

The potential bushfire impact to the site / proposed development from each of the identified vegetation plots are identified below.

Table 4 - BAL Analysis

Plot	Vegetation Classification	Effective Slope	Separation (m)	BAL
1	Class B – Woodland*	Flat/upslope	38m +	BAL-12.5 or BAL-LOW
2	Excluded – Clause 2.2.3.2 (e), (f)	Flat/upslope	N/A	BAL-LOW

*Note: The Class B – Woodland present on the site is classified conservatively. The vegetation to the southeast meets the requirements of AS3959 for classification as Woodland. However, the vegetation to the east/northeast is more aligned to shrubland but is classified as woodland due to the potential for revegetation.

The site provides sufficient separation to ensure the development will not be exposed to radiant heat exceeding 12.5 kW/m².

Under the tabulated assessment method in AS3959:2018, an unmitigated separation of 33 metres from the Class B Woodland hazard corresponds to a radiant heat exposure not exceeding 12.5kW/m². The proposed 38 metre separation exceeds this distance.

Additionally, the easternmost row of BESS units will be located on a finished bench approximately 2 to 3 metres below the natural ground level along the eastern boundary. This level difference will reduce the view factor and direct line of sight between flames within the classified vegetation and the development, reducing radiant heat exposure to the BESS units. This additional benefit has not been quantified or relied upon in the BAL assessment, which conservatively applies the standard assessment method in AS3959:2018.

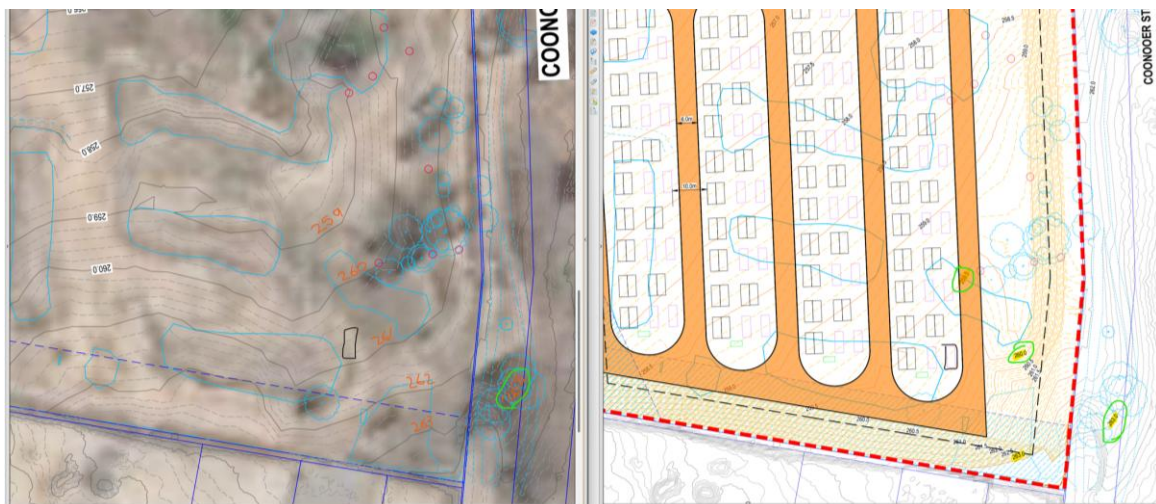


Figure 13 - elevation change towards the site

7. BUSHFIRE AND BESS INCIDENT INTERACTIONS

CFA identified six matters relating to potential interaction between bushfire and the BESS. The proposed design and emergency controls address these risks without relying on immediate emergency service attendance or external water supply. CFA's concerns include:

- ember attack on battery enclosures
- simultaneous bushfire and battery fire scenarios
- reduced firefighter access during bushfire conditions
- reduced water availability during major bushfire events
- smoke interaction between bushfire and battery fire incidents and
- emergency response and evacuation arrangements during Catastrophic Fire Danger conditions.

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These are addressed in the following sections.

7.1. EMBER ATTACK

The BESS Units will have a minimum IP55 rated enclosure. This prevents the ingress of water under direct spray and dust. The enclosure will also be suitable to prevent the ingress of embers during a bushfire, particularly as embers are generally of larger size than dust.

The current design includes a 38m setback to the east, perimeter firebreaks and non-combustible surfaces, which will also reduce the effects of bushfire attack, ember accumulation and ignition risk closer to the BESS. The interface between the BESS and the bushfire hazard will be managed in line with defensible space requirements.

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Routine inspections that are consistent with the manufacturer's recommendations will maintain enclosure integrity and remove combustible debris.

7.2. SIMULTANEOUS BUSHFIRE AND BATTERY FIRE SCENARIOS

A battery incident occurring during a bushfire presents additional challenges, particularly where emergency services are committed elsewhere, or site access is restricted.

The BMS, fire detection systems, SCADA, remote monitoring and emergency shutdown systems will provide early warning and allow affected equipment to be isolated.

BESS units are located sufficiently far away that a bushfire is considered unlikely to result in the loss of the unit, nor will a thermal runaway event result in a bushfire. All infrastructure would be exposed to less than 12.5kW/m² in a bushfire scenario. Additionally, the BESS units will be IP55 rated and will likely have undergone appropriate large-scale fire testing, including confirmation of its performance under radiant heat exposure. Due to the separation being provided from the vegetation to the east, it is unlikely that a battery fire would spread to the vegetated areas, and also unlikely that a vegetation fire would interfere with the BESS.

The EMP will specifically address this scenario and will not rely on guaranteed brigade attendance.

7.3. REDUCED FIREFIGHTER ACCESS DURING A BUSHFIRE

The site includes primary access from Hattam Street and secondary access from Coonooer Street. It is acknowledged that bushfire conditions could restrict firefighter access via the secondary accessway. However, the primary accessway is expected to remain the preferred response route during a bushfire incident.

As firefighters access the site via the primary accessway, firefighters will have dual access to either continue southwest along the western boundary, or travel southeast towards the eastern side of the BESS footprint. From these points, the primary accessway provides full perimeter appliance access and internal turning areas, allowing firefighters to approach the BESS from multiple locations.

The secondary accessway provides an alternative route if the primary accessway becomes restricted or unsafe. Where conditions prevent safe access via either route, responding crews will stage at a safe location until conditions permit entry. Remote monitoring and shutdown systems will continue to support incident management during this period.

The proposed access arrangements provide suitable operational access from more than one direction. Additional access from the south is therefore not considered necessary.

7.4. REDUCED WATER AVAILABILITY

A major bushfire could affect mains pressure or increase demand on the local water network. The BESS will therefore have a dedicated minimum 576,000L fire water supply connected to the site hydrant system. This is considered suitable for coping with a bushfire event. The 576,000L fire water supply will be suitable for use during a bushfire event, where reticulated water supplies may have pressure or supply issues.

A recommendation of this report will be to have at least one hydrant on the eastern side of the site that can be accessed during a bushfire event.

7.5. SMOKE INTERACTION

Bushfire smoke could reduce visibility and make detection and assessment of a battery incident more difficult. The BESS will use multiple indicators, including smoke, heat, gas, electrical condition and battery temperature, to identify abnormal conditions. Where the BMS detects an abnormal condition, such as smoke ingress into the BESS unit, it will initiate shutdown of the BESS.

The EMP will also address plume monitoring, exclusion zones, respiratory protection, evacuation and notification of surrounding areas where required.

7.6. EMERGENCY RESPONSE DURING CATASTROPHIC FIRE DANGER

During Catastrophic Fire Danger conditions, routine maintenance, construction, deliveries and site visits will cease.

The only thing that will occur on site will be critical maintenance activities, such as technician attendance to prevent incident escalation. This will be outlined the EMP.

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8. CLAUSE 13.02 ASSESSMENT

8.1. INTRODUCTION

Clause 13.02 of the Planning Scheme states:

This policy must be applied to all planning and decision making under the Planning and Environment Act 1987 relating to land that is:

- *Within a designated bushfire prone area;*
- *Subject to a Bushfire Management Overlay; or*
- *Proposed to be used or developed in a way that may create a bushfire hazard.*

As the development is located within a designated bushfire prone area, an assessment against Clause 13.02 is required to be completed.

8.2. STRATEGY RESPONSE

Table 5 - Clause 13.02 strategy assessment response

Strategy		Response
Give priority to the protection of human life by:		
1	Prioritising the protection of human life over all other policy considerations.	This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright. Bushfire impact is limited to the east and the proposed development will achieve suitable setbacks from the bushfire hazard to achieve BAL-12.5 outcomes. The site will not be regularly staffed once the BESS is constructed. An Emergency Management Plan will be developed for the operations and construction phase of the development to ensure that if a bushfire broke out in the landscape, any people on site can be properly evacuated. The EMP will also outline that no staff are to be present on site during a catastrophic fire danger day, except for critical maintenance.
2	Directing population growth and development to low risk locations and ensuring the availability of, and safe access to, areas where human life can be better protected from the effects of bushfire.	The proposed development will not result in population growth. The development is located within a Type 2 landscape hazard area and the site has areas available that can be considered low risk. There are neighbourhood safer places within close proximity to the site.
3	Reducing the vulnerability of communities to bushfire through the consideration of bushfire risk in decision making at all stages of the planning process.	This report addresses the bushfire risk and has identified all necessary treatments based on this risk.
Identify bushfire hazard and undertake appropriate risk assessment by:		

Strategy	Response
1	Applying the best available science to identify vegetation, topographic and climatic conditions that create a bushfire hazard.
2	Considering the best available information about bushfire hazard, including the bushfire prone area map.
3	Applying the Bushfire Management Overlay to land where the extent of vegetation can create an extreme bushfire hazard.
4	Considering and assessing the bushfire hazard on the basis of: - Landscape conditions - meaning conditions in the landscape within 20 kilometres (and potentially up to 75 kilometres) of the site. - Local and neighbourhood conditions - meaning conditions in the area within approximately 5 kilometres of the site. - The site and conditions within 150 metres.
5	Consulting with emergency management agencies and the relevant fire authority early in the process to receive their recommendations and implement appropriate bushfire protection measures.

The site has been assessed as per AS3959 as required by Clause 13.02 the Planning Scheme. The assessment has (conservatively) identified woodland vegetation to the east. As such, a setback will be provided that ensures radiant heat flux will not exceed 12.5kW/m². The setback will be managed consistent with defensible space requirements.

The site is within a Bushfire Prone Area and partially within the Bushfire Management Overlay.

The site has been assessed against AS3959 and woodland vegetation and potential woodland regrowth has been identified to the east. The current design includes 38m of separation, which ensures that all BESS units are located in a BAL-12.5 or BAL-LOW location.

The proposed development is partially within the BMO. In accordance with Clause 44.06, a utility construction does not require assessment against Clause 53.02.

The site has been assessed using one, five and 20 kilometres. There is no vegetation in the broader landscape that would support a bushfire impact to the site; however, impacts will be largely limited to a fire flank or an easterly wind change. Ember attack from the broader landscape is possible.

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Strategy		Response
6	Ensuring that strategic planning documents, planning scheme amendments, planning permit applications and development plan approvals properly assess bushfire risk and include appropriate bushfire protection measures.	The development has demonstrated how it achieves compliance with the Clause 13.02 requirements.
7	Not approving development where a landowner or proponent has not satisfactorily demonstrated that the relevant policies have been addressed, performance measures satisfied or bushfire protection measures can be adequately implemented	The design solution for this development demonstrates how the bushfire risk can be mitigated on the property. An assessment has been conducted in accordance with AS3959, and woodland / potential woodland regrowth has been identified to the east. The layout achieves a radiant heat flux of <12.5kW/m². The current design includes a 38m setback from the eastern boundary, which is in excess of the 33m setback that corresponds to a <12.5kW/m² exposure. The landscape has also conservatively been assessed as
Plan to strengthen the resilience of settlements and communities through settlement growth, land use and development that prioritises the protection of human life by:		
1	Assessing the bushfire hazard at different spatial scales (landscape, local and neighbourhood and site), the likely fire behaviour, bushfire risk and the potential for local and neighbourhood-scale destruction.	The site has been assessed using one, five and 20 kilometres. There is vegetation in the broader landscape that would support some bushfire impact to the site; however, impacts will be largely limited to a fire flank or an easterly wind change. Ember attack from the broader landscape is possible.
2	Directing population growth and development to low-risk locations, being those where: - The risk from large bushfires in the wider landscape can be managed including the risk associated with higher levels of ember attack. - On completion, development will not be	This Project does not promote population growth and will likely only have people regularly onsite during the construction phase and when undertaking maintenance during the operations phase. Additionally, the site is considered low risk for the following reasons: - The risk from large fires in the landscape is considered manageable as the site is located within a developed area. - Bushfire impact will likely be limited to an easterly wind change or fire flank, which is considered lower risk than direct impact from the northwest or southwest.

Strategy	Response
exposed to high levels of radiant heat, which is no more than 12.5 kilowatts/square metre for locations subject to strategic planning or the preparation of a planning scheme amendment. - There is reliable access to areas of land where human life can be better protected from the effects of bushfire. - Bushfire protection measures can be provided to manage the on-going risk from bushfire.	- All infrastructure will achieve a radiant heat flux exposure of <12.5kW/m². - Access to Neighbourhood Safer Places is available in the surrounding landscape. - Access to more developed areas are within walkable distance from the site.
3 Ensuring alternative locations for settlement growth on a regional, municipal, settlement, local and neighbourhood basis have been assessed to ensure the proposed location for growth prioritises human life.	The proposed development will not result in settlement growth for the purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright
4 Ensuring the bushfire risk to existing and future residents, property and community infrastructure will not increase as a result of future land use and development.	The proposed treatment, including the minimum 10m firebreak for the perimeter of the development, will reduce the bushfire risk to existing and future residents in the surrounding landscape. The project has considered bushfire risk in the design and there is sufficient space on site to achieve a radiant heat flux exposure of <12.5kW/m². The eastern separation will be managed as an area of defensible space to further reduce the potential impacts from the vegetation to the east.
5 Achieving no net increase in risk to existing and future residents, property and community infrastructure, through the implementation of bushfire protection measures and where possible reducing bushfire risk overall.	The implementation of the proposed bushfire protection measures will reduce the bushfire risk to the surrounding areas.

Strategy	Response
6 Not preparing, adopting or approving a plan that will result in the introduction or intensification of development in an area that has, or will have on completion, a radiant heat exposure of more than 12.5 kilowatts/square metre in the event of a bushfire. In this strategy, 'plan' means a strategic plan, policy statement, and amendment to a planning scheme, including an amendment to the Planning Policy Framework, or a plan approved under a provision of the planning scheme.	The development is not a strategic plan, policy statement, and amendment to a planning scheme.
Additional measures:	
1 Ensure settlement growth and development approvals can implement bushfire protection measures without unacceptable biodiversity impacts by discouraging settlement growth and development in bushfire affected areas that are important areas of biodiversity.	its consultation and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright will require to establish firebreaks for the development.
2 When assessing a planning permit application for a use or development that will result in people congregating in large numbers: - consider the risk of bushfire to people, property and community infrastructure; - require the implementation of appropriate bushfire protection measures to address the identified bushfire risk; and	The proposed development will only increase the number of people on site during the construction phase of the development. This will be managed through the implementation of an Emergency Management Plan that outlines closure of the site on Catastrophic Fire Danger Days. The risk of people, property and community infrastructure has been considered throughout the development and will be managed through the implementation of a 10m firebreak. This will ensure prevent fires from leaving the property and impacting the property. Additionally, all buildings on site will be located in an area suitable to achieve BAL-12.5 requirements.

Strategy	Response
ensure development can implement bushfire protection measures without unacceptable biodiversity impacts.	

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9. TREATMENT SUMMARY

The following is recommended:

- A separation sufficient to achieve a radiant heat flux not exceeding 12.5kW/m² is to be maintained. Based on the tabulated assessment method in AS3959:2018, this equates to an unmitigated separation of 33 metres. The current design provides 38 metres.
- The eastern interface area is to be managed in a low-fuel condition, consistent with the following requirements:
 - Grass must be short cropped and maintained during the declared fire danger period.
 - All leaves and vegetation debris must be removed at regular intervals during the declared fire danger period.
 - Within 10 metres of a building or the units, flammable objects must not be located close to the vulnerable parts of the building or units.
 - Plants greater than 10 centimetres in height must not be placed within 3m of a window or glass feature of buildings.
 - Shrubs must not be located under the canopy of trees.
 - Individual and clumps of shrubs must not exceed 5sq metres in area and must be separated by at least 5 metres.
 - Trees must not overhang any elements of the building or units.
 - The canopy of trees must be separated by at least 5 metres.
 - There must be a clearance of at least 2 metres between the lowest tree branches and ground level.
- A perimeter firebreak of 10 metres from screening vegetation, as well as a 10m firebreak around property infrastructure, is to be provided in all other directions.
- Minimum fire water supply of 576,000 litres connected to a minimum of 4 hydrants located around the site. A minimum of one hydrant is to be located on the eastern side of the BESS. This will be suitable for use during a bushfire and if reticulated mains pressure is not adequate during a bushfire event.
- Fire hydrant system that complies with AS2419.1, and booster assembly and pumps that enables appropriate pressures at the fire hydrant.
- An Emergency Management Plan that outlines that staff are not to attend site on Catastrophic fire danger days, apart from critical maintenance.
- Access to the site to include full perimeter access to the BESS area, including appropriate widths and load limits from access gates.
- Access via the secondary accessway is to meet the following requirements:
 - All weather construction.
 - A load limit of at least 15 tonnes.
 - Provide a minimum trafficable width of 3.5 metres.

- Be clear of encroachments for at least 0.5 metres on each side and at least 4 metres vertically.
- Curves must have a minimum inner radius of 10 metres.
- The average grade must be no more than 1 in 7 (14.4%) (8.1°) with a maximum grade of no more than 1 in 5 (20%) (11.3°) for no more than 50 metres.
- Dips must have no more than a 1 in 8 (12.5 per cent) (7.1 degrees) entry and exit angle.

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10. CONCLUSION

The proposed Bendigo Battery Energy Storage System has been assessed against the surrounding bushfire hazard, applicable planning controls and relevant bushfire assessment criteria. Although the site is partially affected by the Bushfire Management Overlay and located within a Bushfire Prone Area, the surrounding urban environment substantially limits the potential for direct bushfire impact. The primary hazard is limited to vegetation located east of the site, with the most likely impacts occurring from a fire flank or following an easterly wind change.

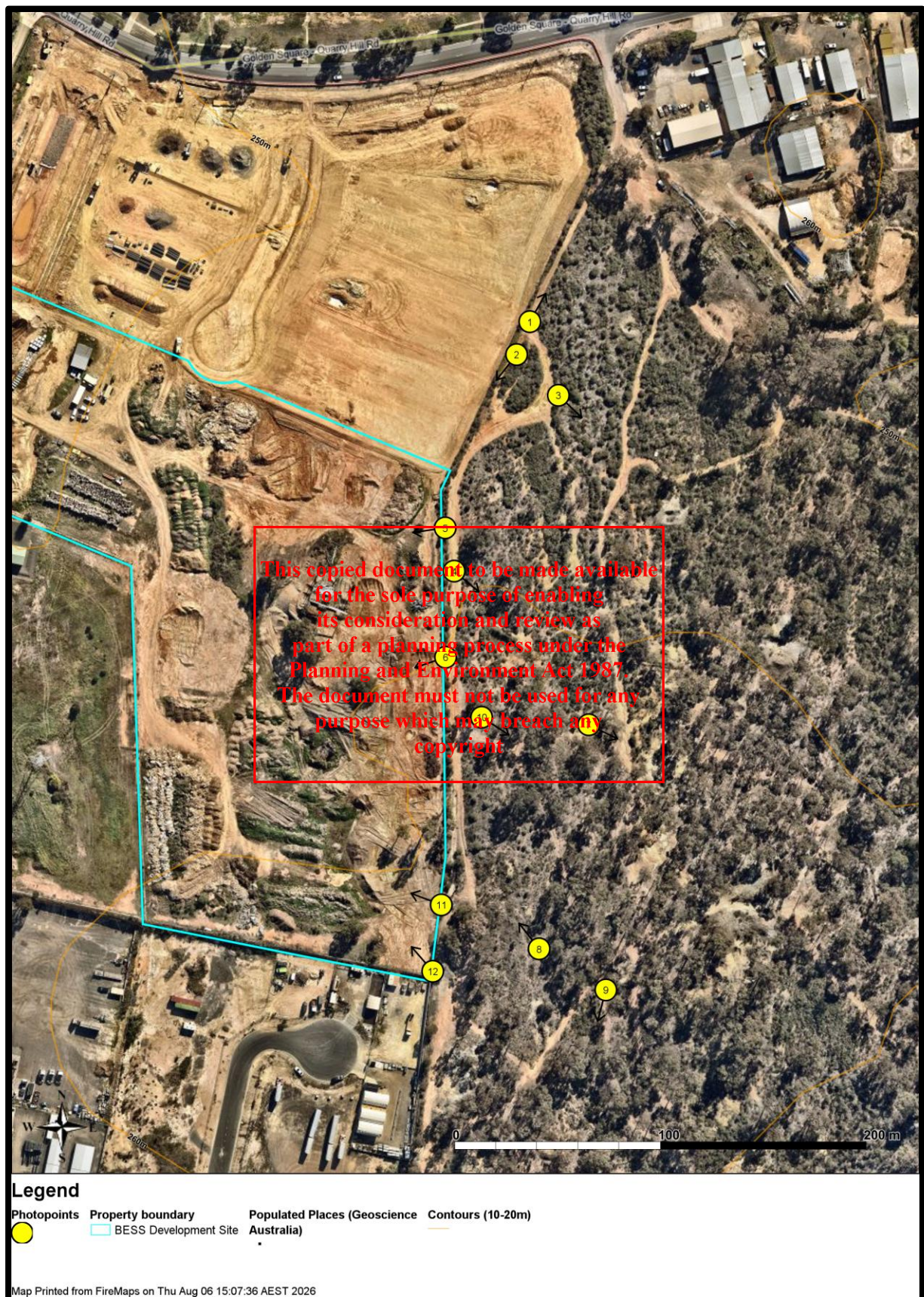
The recommended treatments, including maintenance of the 38 metre defendable space to the east, provision of perimeter firebreaks, compliant fire water infrastructure, suitable emergency access arrangements and implementation of an Emergency Management Plan, reduce bushfire risk to an acceptable level and support safe operation of the facility.

Accordingly, the proposed development is considered to achieve the intent of Clause 13.02 of the Victorian Planning Scheme and is suitable for approval from a bushfire hazard perspective, subject to implementation and ongoing maintenance of the recommended bushfire protection measures.

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APPENDIX A – PHOTOS



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1. Looking northeast along the existing access track. ADVERTISED PLAN	AGILUS North East ☉ 29°NE (T) ● 36°46'57"S, 144°15'28"E ±3m ▲ 256m  Bushfire Hazard Assessment Bendigo BESS 21 Jul 2026, 12:00:42
2. Looking southwest along the fence line for the existing subdivided area.	AGILUS South West ☉ 218°SW (T) ● 36°46'58"S 144°15'28"E ±4m ▲ 256m  Bushfire Hazard Assessment Bendigo BESS 21 Jul 2026, 12:00:30

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3. Looking southeast at the shrubland vegetation that was classified as 'woodland' due to the possibility of regrowth.	AGILUS South East ☉ 134°SE (T) ● 36°46'59"S, 144°15'28"E ±4m ▲ 257m  Bendigo BESS 21 Jul 2026, 12:01:56
4. Looking southeast at the shrubland vegetation that was classified as 'woodland' due to the potential for regeneration.	AGILUS South East ☉ 130°SE (T) ● 36°47'1"S, 144°15'26"E ±4m ▲ 260m  Bendigo BESS 21 Jul 2026, 12:04:13

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5. Looking west at the project site.

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6. Looking west at the BESS area

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7. Looking southeast at woodland vegetation. ADVERTISED PLAN	AGILUS South East 116°SE (T) 36°47'4"S, 144°15'29"E ±3m ▲ 266m  Bushfire Hazard Assessment Bendigo BESS 21 Jul 2026, 12:12:04
8. Looking northwest at shrubland areas that have conservatively been classified as 'woodland'.	AGILUS North West 322°NW (T) 36°47'7"S, 144°15'28"E ±5m ▲ 269m  Bushfire Hazard Assessment Bendigo BESS 21 Jul 2026, 12:15:28

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9. Looking south towards the woodland areas. ADVERTISED PLAN	AGILUS South 195°S (T) 36°47'8"S, 144°15'29"E ±3m ▲ 270m  Bendigo BESS 21 Jul 2026, 12:14:32
10. Looking southeast towards areas of woodland.	AGILUS South East 123°SE (T) 36°47'3"S, 144°15'27"E ±10m ▲ 266m  Bendigo BESS 21 Jul 2026, 12:08:16

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11. Looking west at the BESS site. ADVERTISED PLAN	AGILUS West ☉ 291°W (T) ● 36°47'7"S, 144°15'26"E ±2m ▲ 265m  Bushfire Hazard Assessment Bendigo BESS 21 Jul 2026, 12:22:18
12. Looking northwest at the project site.	AGILUS North West ☉ 319°NW (T) ● 36°47'8"S, 144°15'26"E ±2m ▲ 267m  Bushfire Hazard Assessment Bendigo BESS 21 Jul 2026, 12:16:33

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APPENDIX B – SKILLS AND EXPERIENCE SUMMARY

Mitch Baade (Assessor)

Overview

Mitch Baade is one of our Bushfire Consultants at Agilus. His background in planning and project management allows him to navigate the complexities of bushfire risk assessment and regulatory compliance with precision and expertise. Mitch is passionate about protecting communities and environments from bushfire threats and is committed to delivering high-quality, data-driven solutions tailored to each client's needs. He works closely with clients to conduct detailed risk assessments, develop effective management plans, and ensure compliance with the latest standards and regulations.

Skills and Experience

Mitch brings a wealth of expertise to his role at Agilus, managing diverse projects including BAL Assessments, renewable energy initiatives, and bushfire consulting across residential, commercial, and infrastructure developments. He works with clients to provide tailored solutions that balance safety, compliance, and sustainability, ensuring projects meet stringent bushfire planning and environmental standards.

Prior to joining Agilus, Mitch honed his skills as a Bushfire and Environmental Assessment Officer at the City of Gold Coast Council. In this role, he evaluated development applications, ensuring alignment with state and local regulations. He also performed peer reviews of bushfire risk assessments, maintaining a high standard of quality and accuracy in the planning process.

As an operational Firefighter and Motor Driver with Fire & Rescue, Mitch has hands-on experience responding to bushfire incidents. His practical understanding of fire behaviour, emergency response, and incident management informs his consulting work, providing real-world insights into bushfire risk and mitigation strategies.

Mitch is also experienced in collaborating with multidisciplinary teams, managing projects from initial assessment through to implementation. His strong communication and problem-solving skills enable him to engage effectively with clients, regulatory bodies, and stakeholders to deliver positive outcomes.

Mitch holds the following qualifications:

- Graduate Certificate in Bushfire Protection – Western Sydney University
- Bachelor of Environmental Science (Awarded with Distinction) – Griffith University
- Bushfire Attack Level Short Course – FPA Australia
- BPAD Level 2 Accredited Practitioner (Vic, NSW)

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Jarred Stevens (Reviewer)

Overview

Jarred is one of our Emergency Management & Community Safety Consultants at Agilus. Jarred brings extensive experience in fire and emergency planning, particularly in local government. He has led teams responsible for developing and improving emergency management frameworks, focusing on bushfire preparedness, public safety, and coordinated incident response. His work emphasises strategic planning, stakeholder collaboration, and the enhancement of operational resilience across communities. Jarred also brings expertise in crime prevention strategies, municipal & domestic animal law, plus CCTV strategy and policy development.

Skills and Experience

Jarred is a senior consultant with extensive experience in public sector management. He spent much of his career in local government, managing community safety and emergency planning and leading a team that strengthened planning frameworks, operational efficiency, and public safety. His work involved close collaboration with internal departments, external agencies, and community groups to support coordinated emergency response and service delivery. Alongside this, he led compliance and public safety initiatives that delivered tangible benefits for local communities. Jarred has more than 15 years of service with the Country Fire Authority, holding roles including 1st Lieutenant, Crew Leader, and Strike Team Leader, and serving as a leader during large campaign fires such as the 2009 Black Saturday Bushfires. This frontline experience with fire behaviour, operations, and incident coordination highlights his in-depth knowledge across bushfire preparedness and risk reduction, emergency response, municipal law, and community crime prevention.

Jarred holds the following qualifications:

- Graduate Diploma in Bushfire Protection – Western Sydney University (in progress)
- Diploma of Management – Chisholm Institute
- Diploma of Human Resources Management – Chisholm Institute
- Diploma of Project Management – Chisholm Institute
- Certificate 2 in Fire and Emergency Operations – Country Fire Authority
- Municipal Fire Prevention Officer Qualification – Country Fire Authority
- Bushfire Behaviour and Science – Country Fire Authority
- Fire Weather – Country Fire Authority
- Fuel Reduction Burning Certification – Country Fire Authority
- Person-Centred Emergency Planning – The University of Sydney

Awards and Citations:

- National Emergency Medal, 2009 Black Saturday Fires
- CFA 15 Years Service Medal

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