#### AM 5.2

The bushfire attack level that corresponds to the defendable space provided in accordance with Table 2 to Clause 53.02-5 must be noted on the building envelope

- Defendable space wholly contained within the boundaries of the proposed subdivision.
- Defendable Space may be shared between lots within the subdivision. Defendable space for a lot may
  utilize communal areas, such as roads, where that land can meet the requirements for defendable
  space.
- Vegetation management requirements in accordance with Table 6 to implement and maintain the defendable space required under this approved measure.
- Water supply and access that complies with AM 4.1

#### 4.6.1 BAL Assessment

Document date & version	14/09/2021 - Version 1.0
Assessor	Daniel Casullo
Assessors Contact	Email: danielc@practicalecology.com.au Phone: (03) 9484 1555

#### Site Details

Municipality	Greater Bendigo	
Address	53 Dukes Lane, Strathfieldsaye	
Applicant/Owner	Emu Creek Holdings Pty Ltd	
Zoning	General Residential Zone (GRZ)	
Overlays	<ul> <li>Development Plan Overlay – Schedule 26 (DPO26)</li> <li>Environmental Significance Overlay – Schedule 1 (ESO1)</li> <li>Land Subject to Inundation Overlay – Schedule 1 (LSIO1)</li> </ul>	
Bushfire Prone Area	Yes	
Description of building work	Residential subdivision	

#### AS3959-2018 Method 1

An overview of the setbacks required from classified vegetation is presented on Map 5.

While there are classified vegetation patches within the site and surrounding it within the assessment area, the majority of these patches can be considered exempt due to proposed or current works occurring within adjacent areas. These areas are presented on Map 5 and detailed below:



- The Grassland vegetation within the property to the north of the site is being approved for residential subdivisions similar to those proposed within this site and will subsequently be cleared and managed as Low Threat vegetation.
- The Grassland vegetation to the west of the site will be managed within a reserve as part of the proposed development plan.
- The Modified vegetation within the eastern corner of the site will be cleared as part of the proposed development plan.

Based on this and the vegetation still present, setbacks required from this remaining classified vegetation are summarised below

Patch placement	West	North, East & South
Fire Danger Index	100	100
Vegetation type	Woodland	Low Threat
Effective slope (up/down)	Level	Level
Effective slope (degrees)	0-2°	0-2°
Defendable space required for BAL-12.5 (m)	33	N/A
Defendable space required for BAL-19 (m)	24	N/A
Defendable space required for BAL-29 (m)	16	N/A

## Prescribed BAL rating for each lot

Under Clause 13.02-1S Bushfire Planning, lots within new residential subdivisions need to prove that BAL-12.5 can be attained for each approved lot (see Figure 9 below for a summary of the BAL ratings). This is achieved within this site through the design of the. The reserve located between Emu Creek and the proposed lots will need to be managed as Low Threat to allow for this.

This applies to areas that are currently maintained as pasture and will form part of the Emu Creek frontage that will have the proposed internal road running adjacent to it, on the west side of the development. Further detail is provided below.



Figure 9. BAL levels (CFA 2012)



# Prescribed BAL rating for each lot

Lot	BAL	Setback from boundary required	Shielding provision (section 3.5 to AS3959–2018)
3001	BAL-12.5	Not required	N/A
3002	BAL-12.5	Not required	N/A
3003	BAL-12.5	Not required	N/A
3004	BAL-12.5	Not required	N/A
3005	BAL-12.5	Not required	N/A
3006	BAL-12.5	Not required	N/A
3007	BAL-12.5	Not required	N/A
3008	BAL-12.5	Not required	N/A
3009	BAL-12.5	Not required	N/A
3010	BAL-12.5	Not required	N/A
3011	BAL-12.5	Not required	N/A
3012	BAL-12.5	Not required	N/A
3013	BAL-12.5	Not required	N/A
3014	BAL-12.5	Not required	N/A
3015	BAL-12.5	Not required	N/A
3016	BAL-12.5	Not required	N/A
3017	BAL-12.5	Not required	N/A
3018	BAL-12.5	Not required	N/A
3101	BAL-12.5	Not required	N/A
3102	BAL-12.5	Not required	N/A
3103	BAL-12.5	Not required	N/A
3104	BAL-12.5	Not required	N/A
3105	BAL-12.5	Not required	N/A
3105	BAL-12.5	Not required	N/A
3106	BAL-12.5	Not required	N/A
3107	BAL-12.5	Not required	N/A
3108	BAL-12.5	Not required	N/A
3109	BAL-12.5	Not required	N/A
3110	BAL-12.5	Not required	N/A
3111	BAL-12.5	Not required	N/A
3112	BAL-12.5	Not required	N/A
3113	BAL-12.5	Not required	N/A
3114	BAL-12.5	Not required	N/A



## 4.6.2 Defendable Space and management standards

Table 6 to Clause 53.02-5 requires that defendable space is provided and is managed in accordance 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, flammable objects must not be located close to the vulnerable parts of the building.
- Plants greater than 10 centimetres in height must not be placed within 3m of a window or glass feature of the building.
- Shrubs must not be located under the canopy of trees.
- Individual and clumps of shrubs must not exceed 5 sq. metres in area and must be separated by at least 5 metres.
- Trees must not overhang or touch any elements of the building.
- 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.

Unless specified in a schedule or otherwise agreed in writing to the satisfaction of the relevant fire authority.

## 4.6.3 Landscaping

#### AM 5.4

A subdivision manages the bushfire risk to future development from existing or proposed landscaping, public open space and communal areas

The proposed internal roads will be managed by the City of Greater Bendigo as a public road reserve. The land identified as defendable space will have to adhere to the associated standards. This will ensure that any proposed works within the area will have to be managed in accordance to these standards. This proposal can therefore be considered compliant with AM 5.4.



## 4.7 Water supply and access

### Clause 53.02-4.4 Subdivision objectives

To provide lots that are capable of being developed in accordance with the objectives of Clause 53.02.

To specify at the subdivision stage bushfire protection measures to develop a lot with a single dwelling on land zoned for residential or rural residential purposes.

#### Measure Requirement

- AM5.2 An application to subdivide land zoned for residential or rural residential purposes must be accompanied by a plan that shows:
  - Each lot satisfies the approved measure in AM 2.1.
  - A building envelope for a single dwelling on each lot that complies with **AM 2.2** and provides defendable space in accordance with:
    - Columns A or B of Table 2 to Clause 53.02–5 for a subdivision that creates 10 or more lots; or
    - Columns A, B or C of Table 2 to Clause 53.02-5 for a subdivision that creates less than 10 lots.

The bushfire attack level that corresponds to the defendable space provided in accordance with Table 2 to Clause 53.02-5 must be noted on the building envelope

- Defendable space wholly contained within the boundaries of the proposed subdivision.
- Defendable Space may be shared between lots within the subdivision. Defendable space for
  a lot may utilize communal areas, such as roads, where that land can meet the
  requirements for defendable space.
- Vegetation management requirements in accordance with Table 6 to implement and maintain the defendable space required under this approved measure.
- Water supply and access that complies with AM 4.1

#### AM 4.1

A building used for a dwelling (including an extension or alteration to a dwelling), a dependant person's unit, industry, office or retail premises is **recommended (though not required)** to be provided with:

- A static water supply for fire fighting and property protection purposes specified in Table 4 to Clause 53.02–5.
- Vehicle access that is designed and constructed as specified in Table 5 to Clause 53.02-5.

The water supply may be in the same tank as other water supplies provided that a separate outlet is reserved for fire fighting water supplies.

Additional information regarding water supply and access can be found in Appendix 1.



## 4.7.1 Water supply

The water requirements as per Table 4 to Clause 53.02-5 based on the size of the lots and the availability of fire hydrants are listed in Table 6 below.

Table 6. Minimum static water supply requirements for buildings in BMO (Clause 53.02-5, table 4)

Minimum static water supply for office, retail, dwellings and dependent person's units			
Lot sizes (m²)	Not available	Effective capacity (L)	Fire authority fittings and access required
Less than 500	N/A	2,500	No
500-1,000	Yes	5,000	No
500-1,000	No	10,000	Yes
1,001 and above	N/A	10,000	Yes

Note 1: A hydrant is available if it is located within 120 meters of the rear of the building Note 2: Fittings must be in accordance with the published requirements of the relevant fire authority

Under Clause 53.02; a 5,000L static water supply would normally be required for all the lots. As this site is not within the BMO however, whether or not these measures are implemented will be left to the future landowners.

If chosen to be installed, these tanks must meet the following requirements:

- be stored in an above ground water tank constructed of concrete or metal.
- all fixed above-ground water pipes and fittings required for firefighting purposes must be made of corrosive resistant metal
- Include a separate outlet for occupant use.

A 5,000L static water supply for the lots will therefore be *recommended* (not required), which do not require CFA access or fittings.

#### 4.7.2 Access

The access requirements as per Table 5 to Clause 53.02-5 are listed in Table 7 below.

Considering the layout of the proposed subdivision, an access way of less than 30m can be guaranteed and no additional access measures are required.

Table 7. Access requirements for buildings in BMO (Clause 53.02-5, table 5)

Applies		
$\boxtimes$	Length of access is less than 30 metres	There are no design and construction requirements if fire authority access to the water supply is not required under AM4.1.
	Length of access is less than 30 metres	Where fire authority access to the water supply is required under AM4.1 fire authority vehicles should be able to get within 4 metres of the water supply outlet.



Applies		
	Length of access is greater than 30 metres	<ul> <li>The following design and construction requirements apply:</li> <li>All-weather construction.</li> <li>A load limit of at least 15 tonnes.</li> <li>Provide a minimum trafficable width of 3.5 metres.</li> <li>Be clear of encroachments for at least 0.5 metres on each side and at least 4 metres vertically.</li> <li>Curves must have a minimum inner radius of 10 metres.</li> <li>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.</li> <li>Dips must have no more than a 1 in 8 (12.5 per cent) (7.1 degrees) entry and exit angle.</li> </ul>
	Length of access is greater than 100 metres	<ul> <li>A turning area for fire fighting vehicles must be provided close to the building by one of the following:</li> <li>A turning circle with a minimum radius of eight metres.</li> <li>A driveway encircling the dwelling.</li> <li>The provision of other vehicle turning heads – such as a T or Y head – which meet the specification of Austroad Design for an 8.8 metre Service Vehicle.</li> </ul>
	Length of access is greater than 200 metres	Passing bays must be provided at least every 200 metres.  • Passing bays must be a minimum of 20 metres long with a minimum trafficable width of six metres.

# 4.8 Ongoing management and community awareness

Clause 44.06–3 of the BMO, includes the requirement that a permit for subdivision that creates a lot for a single dwelling on land zoned for residential or rural residential purposes must include a s173 agreement. This must detail the required bushfire protection measures to be ongoing and exempts the need for future assessment to undertake works, such as construct a dwelling, consistent with the specified measures. Additional supporting documentation should be provided to new residents to ensure that they understand the bushfire risk at the site and their obligations to manage it, including prescriptions and advice regarding the Landscape Design Guidelines.

Residents need to also be aware that the measures in this Bushfire Management Statement cannot guarantee safety during an extreme fire event; buildings are only designed to withstand fire up to a Fire Danger Index (FDI) of 100 (i.e. not designed for Code Red Fire Danger), and even below this threshold building survival cannot be guaranteed. Residents need to develop a Personal Bushfire Plan to clearly understand and plan for how they are going to act in response to a potential and actual fire event. Residents should refer to CFA's Fire Ready Kit (CFA 2011) to plan for such events.

