BUSHFIRE HAZARD REPORT

The information in this report is based on the instructions of AS 3959:2018 - Construction of Buildings in Bushfire Prone Areas and the Directors Determination – Requirements for Building in Bushfire-Prone Areas.

510 SNUG TIERS RD

SNUG 7054

Prepared by: Tas Bushfire Consulting
12/04/2024

CONTENTS

Associated Documents:

- Bushfire Hazard Management Plan
- Form 55

DISCLAIMER

Please remember that the measures contained in this report cannot guarantee that a building will survive in the event of a bushfire on every occasion. This is substantially due to the degree of vegetation management, the unpredictable nature and behaviour of fire and extreme weather conditions.

In preparation of this document, all reasonable steps have been taken to ensure that the information in this report is correct and accurately reflects, both the conditions of the considered allotment and its surroundings on the date of this assessment.

EXECUTIVE SUMMARY

This Bushfire Hazard report is prepared for the proposed as-constructed additions and alterations at 510 Snug Tiers Road Snug (C.T.33264/1). This report is prepared as part of the documentation for Building Approval.

The property is considered as being bushfire prone being mapped within the Bushfire-Prone Areas overlay of the Kingborough Interim Planning Scheme.

This report will define the bushfire attack level classification of the lot and determine its compliance with relevant bushfire building requirements, legislation and guidelines.

Using AS 3959:2018 simplified procedure, method 1, the bushfire attack level of the site and the construction requirements will be classified as **BAL 19**.

The site is to be maintained to the level set out in this report and the proposed additions to be constructed and maintained in accordance with the Determination by the Director of Building Control – Requirements for Building in Bushfire-Prone Areas (V2.2) as well as the construction sections 3 and 6 of AS 3959:2018 Construction of Buildings in Bushfire Prone Areas for BAL 19.

DESCRIPTION OF PROPOSAL

Location	510 Snug Tiers Road Snug
Title reference	33264/1
Property ID	7496205
Lot size	16.25ha.
Zoning	Environmental Living
Council	Kingborough
Development type	Proposed Dwelling Additions and Alterations
Environs	Rural property surrounded by forest.
Access	Existing gravel access to an acceptable standard to safely accommodate a firefighting vehicle. Reasonable carriageway width and gradient with slight bends. No requirement to modify.
Water supply	Static water supply and hardstand required to comply with Table 4.3B Requirements for Static Water Supply for Fire Fighting of the Directors Determination - Requirements for Building in Bushfire-Prone Areas. Refer BHMP

Assessed by:

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Accredited person under part 4a of the Fire Service Act 1979
BFP-154

BUSHFIRE SITE ASSESSMENT

The property is considered to be within a bushfire prone area due to the proximity of vegetation greater than 1ha in area.

The proposed building additions are located in a rural area and the risk of bushfire attack is should be considered high. Using AS 3959:2018 simplified procedure (method 1) the bushfire attack level of the allotment and the associated construction requirements will be classified as BAL 19. BAL 19 is described as being exposed to ember attack with radiant heat less than 19kW/m².

Please see table 1 below for results. These results were calculated on Tasmania's FDI of 50.

	North	East	South	West
Veg <100m	0-75m grassland, 75m+ forest	0-35m grassland, 35m+ forest	0-40m grassland, 40m+ forest	0-45m grassland, 45m+ forest
Slope (degrees over 100m)	Downslope 15-20°	Downslope 5-10°	Level/upslope	Downslope 5-10°
Min. req. Defendable space – BAL 19	*17m grassland 51m forest*	*15m grassland 34m forest*	*10m grassland 23m forest*	*15m grassland 34m forest*

The Hazard Management Area requirement listed in the above table is the minimum distance required for a BAL 19 rating as per AS 3959 table 2.6. To achieve a BAL 19 and ensure ongoing compliance the allotment will need to meet the required **Hazard Management Area as outlined in the associated Bushfire Hazard Management Plan**. This single zone hazard management area must be managed and kept at a minimum fuel condition at all times "where fine fuels are minimized to the extent that the passage of fire will be restricted, e.g. short green lawns, paths, driveways etc.". All grassed areas within this zone need to be kept to a nominal height of 100mm.

The main design principles for this zone are to; create space, remove flammable objects or materials, separate fuel & influence the selection, location and maintenance of trees.

For more information, refer the "fire resisting garden plants" booklet produced by the Tasmanian Fire service.

OBJECTIVES & REQUIREMENTS

Directors Determination – Requirements for Building in Bushfire-Prone Areas (V2.2)
– Deemed to satisfy requirements

Table 4.1 Construction Requirements & Construction Variations		
Element	**Applicability**	**Requirement**
A.	N/A	
B.	N/A	
C.	N/A	
Table 4.2 Requirements for Property Access		
A.	N/A	Existing gravel access to an acceptable standard to safely accommodate a firefighting vehicle. Reasonable carriageway width and gradient with slight bends. No requirement to modify. Ensure existing vegetation doesn't encroach to restrict access.
B.	N/A	
C.	N/A	
D.	N/A	
Table 4.3A Reticulated Water Supply for Fire fighting		
A.	N/A	
B.	N/A	
C.	N/A	
Table 4.3B Static Water Supply for Fire fighting		
A.	Yes	The following requirements apply: (a) The building area to be protected must be located within 90m of the fire fighting water point of a static water supply; and (b) The distance must be measured as a hose lay, between the fire fighting water point and the furthest part of the building area.
B.	Yes	A static water supply: (a) May have a remotely located offtake connected to the static water supply; (b) May be a supply for combined use (fire fighting and other uses) but the specified minimum quantity of fire fighting water must be available at all times; (c) Must be a minimum of 10,000 litres per building area to be protected. This volume of water must not be used for any other purpose including fire fighting sprinkler or spray systems; (d) Must be metal, concrete or lagged by non-combustible materials if above ground; and (e) If a tank can be located so it is shielded in all directions in compliance with Section 3.5 of AS 3959-2009, the tank may be constructed of any material provided that the lowest 400 mm of the tank exterior is protected by: (i) metal; (ii) non-combustible material; or (iii) fibre-cement a minimum of 6 mm thickness.
C.	Yes	Fittings and pipework associated with a fire fighting water point for a static water supply must: (a) Have a minimum nominal internal diameter of 50mm; (b) Be fitted with a valve with a minimum nominal internal diameter of 50mm; (c) Be metal or lagged by non-combustible materials if above ground; (d) Where buried, have a minimum depth of 300mm; (e) Provide a DIN or NEN standard forged Storz 65 mm coupling fitted with a suction washer for connection to fire fighting equipment; (f) Ensure the coupling is accessible and available for connection at all times; (g) Ensure the coupling is fitted with a blank cap and securing chain (minimum 220 mm length); (h) Ensure underground tanks have either an opening at the top of not less than 250 mm diameter or a coupling compliant with this Table; and (i) Where a remote offtake is installed, ensure the offtake is in a position that is: (i) Visible;

		(ii) Accessible to allow connection by fire fighting equipment; (iii) At a working height of 450 – 600mm above ground level; and (iv) Protected from possible damage, including damage by vehicles.
D.	Yes	The fire fighting water point for a static water supply must be identified by a sign permanently fixed to the exterior of the assembly in a visible location. The sign must: (a) comply with water tank signage requirements within Australian Standard AS 2304-2011 Water storage tanks for fire protection systems; or (b) comply with the Tasmania Fire Service Water Supply Signage Guideline published by the Tasmania Fire Service.
E.	Yes	A hardstand area for fire appliances must be provided: (a) No more than 3m from the fire fighting water point, measured as a hose lay (including the minimum water level in dams, swimming pools and the like); (b) No closer than 6m from the building area to be protected; (c) With a minimum width of 3m constructed to the same standard as the carriageway; and (d) Connected to the property access by a carriageway equivalent to the standard of the property access.
Table 4.4 Requirements for Hazard Management Area		
A.	N/A	
B.	N/A	
C.	Yes	BAL 19 HMA identified and to be provided.
D.	N/A	
E.	N/A	
F.	N/A	
Table 4.5 Requirements for Emergency Planning		
A.	N/A	

The proposed additions are to be constructed to comply with BAL 19 requirements in accordance with AS 3959 and the deemed to satisfy requirements outlined in this report and associated BHMP.

No natural or cultural values were identified on site or through desktop assessment which would prevent the clearing of vegetation communities present on site required for achieving BAL 19.

No other environmental or planning issues were identified on site or through desktop assessment, including review of the Kingborough Interim Planning Scheme 2015 zoning and overlay maps.

CONCLUSION

The site was assessed as having a bushfire attack level of 19. The hazard management area required to meet BAL 19 is specified in the associated Bushfire Hazard Management Plan and the ongoing maintenance of this area in a minimum fuel state as prescribed in this plan is of utmost priority regarding bushfire risk.

Proposed development should be constructed to comply with all construction requirements of AS 3959 and other recommendations outlined in this report. These measures will need to be undertaken to avoid increasing risk from a bushfire.

This report should be considered in conjunction with all other design documents for this proposal in case of conflict. Therefore, it is the responsibility of the client to provide this report to all relevant parties involved in the future planning and construction at the property.

For other valuable resources regarding building for bushfires and bushfires in general see the Tasmanian fire service website: www.fire.tas.gov.au

REFERENCES

- Directors Determination – Requirements for Building in Bushfire-Prone Areas (V2.2)
- Standards Australia Limited. AS 3959:2018 – Construction of Buildings in Bushfire Prone Areas
- Kingborough Interim Planning Scheme 2015
- Australian Building Codes Board. 2022 National Construction Code – volume two
- Tasmanian government DPIPWE - LISTmap & TASVEG 4.0 map

AERIAL IMAGERY

Aerial view of allotment showing 120m radius from development site.
Existing cleared and managed area immediately around the dwelling. Surrounded by grassland and forest. Refer BHMP.

SITE PHOTOS

Above: Aerial view existing dwelling looking North-East toward forest on downslope surrounding the property. Refer BHMP.
Below: As-constructed outbuilding adjoining existing dwelling.

NOTE:
TO BE READ IN CONJUNCTION WITH THE BUSHFIRE HAZARD REPORT.
THE HAZARD MANAGEMENT AREA (SHOWN IN ORANGE) MUST BE MANAGED AND KEPT AT A MINIMUM FUEL CONDITION AT ALL TIMES WHERE FINE FUELS ARE MINIMIZED TO THE EXTENT THAT THE PASSAGE OF FIRE WILL BE RESTRICTED, E.G. SHORT GREEN LAWNS, PATHS, DRIVEWAYS ETC. ALL GRASSED AREAS WITHIN THIS ZONE NEED TO BE KEPT TO A NOMINAL HEIGHT OF 100MM.

DIRECTORS DETERMINATION - REQUIREMENTS FOR BUILDING IN BUSHFIRE-PRONE AREAS (TRANSITIONAL)
THE FOLLOWING REQUIREMENTS ARE RELEVANT TO THIS DESIGN:

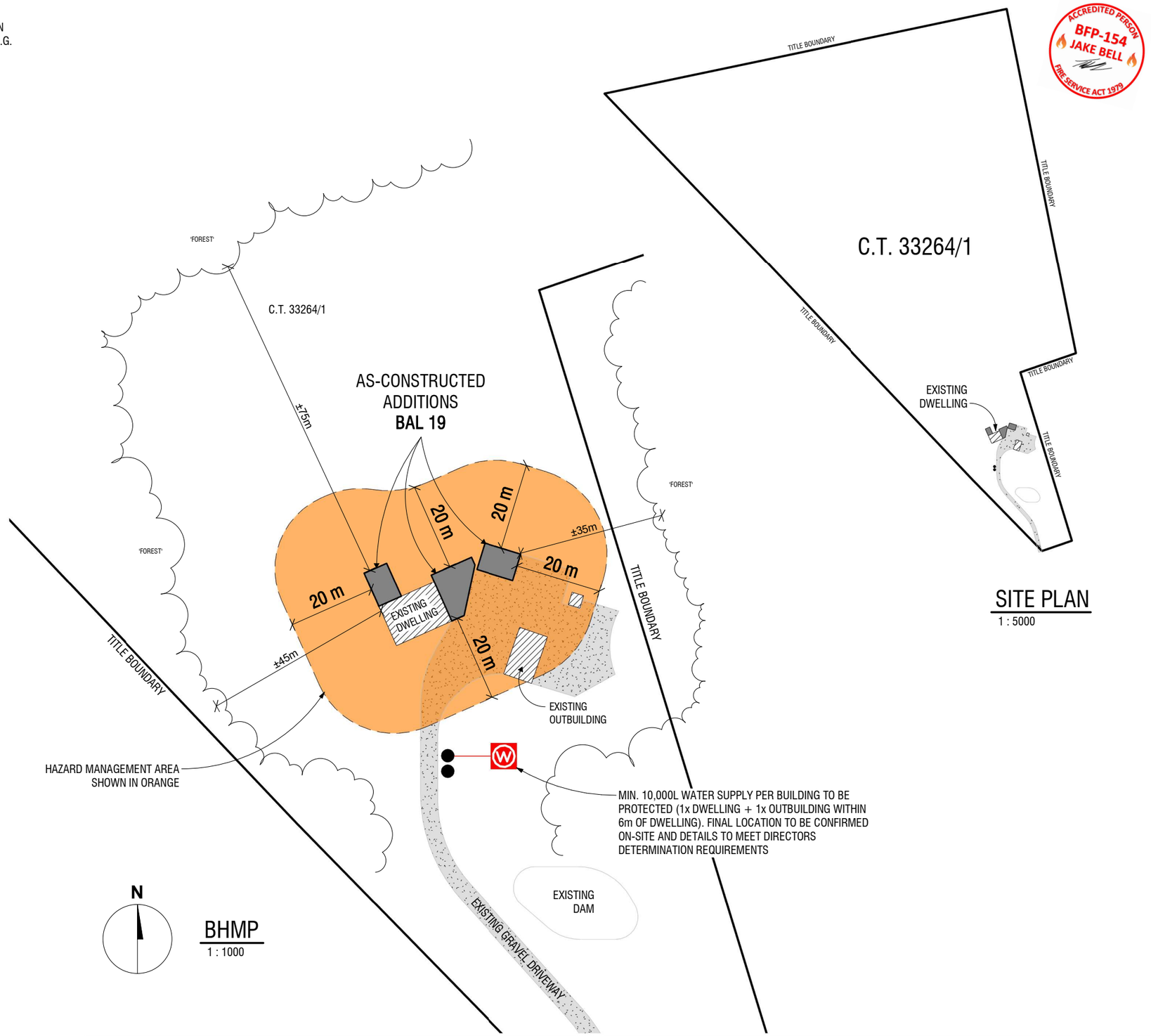
TABLE 4.3B REQUIREMENTS FOR STATIC WATER SUPPLY FOR FIREFIGHTING

The following requirements apply:
(a) the building area to be protected must be located within 90m of the fire fighting water point of a static water supply; and
(b) the distance must be measured as a hose lay, between the fire fighting water point and the furthest part of the building area.

A static water supply:
(a) may have a remotely located offtake connected to the static water supply;
(b) may be a supply for combined use (fire fighting and other uses) but the specified minimum quantity of fire fighting water must be available at all times;
(c) must be a minimum of 10,000l per building area to be protected. This volume of water must not be used for any other purpose including fire fighting sprinkler or spray systems;
(d) must be metal, concrete or lagged by non-combustible materials if above ground; and
(e) if a tank can be located so it is shielded in all directions in compliance with section 3.5 of Australian Standard AS 3959-2009 Construction of buildings in bushfire-prone areas, the tank may be constructed of any material provided that the lowest 400mm of the tank exterior is protected by:
(i) metal;
(ii) non-combustible material; or
(iii) fibre-cement a minimum of 6mm thickness.
Fittings and pipework associated with a fire fighting water point for a static water supply must:
(a) have a minimum nominal internal diameter of 50mm;
(b) be fitted with a valve with a minimum nominal internal diameter of 50mm;
(c) be metal or lagged by non-combustible materials if above ground;
(d) if buried, have a minimum depth of 300mm2,;
(e) provide a DIN or NEN standard forged Storz 65mm coupling fitted with a suction washer for connection to fire fighting equipment;
(f) ensure the coupling is accessible and available for connection at all times;
(g) ensure the coupling is fitted with a blank cap and securing chain (minimum 220mm length);
(h) ensure underground tanks have either an opening at the top of not less than 250mm diameter or a coupling compliant with this Table; and
(i) if a remote offtake is installed, ensure the offtake is in a position that is: (i) visible;
(ii) accessible to allow connection by fire fighting equipment;
(iii) at a working height of 450 – 600mm above ground level; and
(iv) protected from possible damage, including damage by vehicles.

The fire fighting water point for a static water supply must be identified by a sign permanently fixed to the exterior of the assembly in a visible location. The sign must:
(a) comply with water tank signage requirements within Australian Standard AS 2304-2011 Water storage tanks for fire protection systems; or
(b) comply with the Tasmania Fire Service Water Supply Guideline published by the Tasmania Fire Service.

A hardstand area for fire appliances must be:
(a) no more than 3m from the fire fighting water point, measured as a hose lay (including the minimum water level in dams, swimming pools and the like);
(b) no closer than 6m from the building area to be protected;
(c) a minimum width of 3m constructed to the same standard as the carriageway; and
(d) connected to the property access by a carriageway equivalent to the standard of the property access.



ACCREDITED PERSON BFP-154 JAKE BELL FIRE SERVICE ACT 1979

CLIENT:	T. & T. HARVEY	510 SNUG TIERS ROAD SNUG 7054 BUSHFIRE HAZARD MANAGEMENT PLAN	**M:** 0407 167 231 **E:** admin@tasbushfire.com.au
PRINT REDUCTION BAR | A3 SHEET 10 20 30 40 50mm		DATE: 12/04/2024 SCALE: As indicated DRAWN: JAKE BELL	TAS BUSHFIRE CONSULTING www.tasbushfire.com.au

CERTIFICATE OF QUALIFIED PERSON – ASSESSABLE ITEM

Section 321

Form **55**

To: T. & T. Harvey *Owner /Agent*

Address

Suburb/postcode

Qualified person details:

Qualified person: Jake Bell

Address: Unit 5 20 Battams Road

Marden 5070

Phone No: 0407 167 231

Fax No:

Licence No: BFP-154

Email address: admin@tasbushfire.com.au

Qualifications and Insurance details: Accredited to report on bushfire hazards under part IVA of the Fire Service Act 1979

(description from Column 3 of the Director's Determination - Certificates by Qualified Persons for Assessable Items

Speciality area of expertise: Analysis of hazards in bushfire-prone areas

(description from Column 4 of the Director's Determination - Certificates by Qualified Persons for Assessable Items)

Details of work:

Address: 510 Snug Tiers Road

Lot No: 1

Snug 7054

Certificate of title No: 33264

The assessable item related to this certificate: Bushfire Hazard Report

(description of the assessable item being certified)
Assessable item includes –
- *a material;*
- *a design*
- *a form of construction*
- *a document*
- *testing of a component, building system or plumbing system*
- *an inspection, or assessment, performed*

Certificate details:

Certificate type: Bushfire Hazard

(description from Column 1 of Schedule 1 of the Director's Determination - Certificates by Qualified Persons for Assessable Items n)

This certificate is in relation to the above assessable item, at any stage, as part of - *(tick one)*

building work, plumbing work or plumbing installation or demolition work: X

or

a building, temporary structure or plumbing installation:

In issuing this certificate the following matters are relevant –

Documents:	Bushfire Hazard Report (Dated 12/04/2023) & Bushfire Hazard Management Plan (Dated 12/04/2023)
Relevant calculations:	
References:	AS 3959:2018 Construction of Buildings in Bushfire-prone Areas Directors Determination – Requirements for Building in Bushfire-Prone Areas (transitional)

Substance of Certificate: (what it is that is being certified)

The Bushfire Attack Level is assessed for the site.
The site was assessed as requiring a Bushfire Attack Level of 19. Separation distances to meet BAL 19 requirements have been specified and shown on the BHMP.

Scope and/or Limitations

I certify the matters described in this certificate.

	Signed:	*Certificate No:*	*Date:*
Qualified person:	Jake Bell 	BFP-154	12/04/2023