

Bushfire Hazard Report

For proposed three lot subdivision at 2015 Bruny Island Main Road, Great Bay



Landowners: Erhard Vinkman
Author: Jim Mulcahy
Date of Assessment: 24th December 2020 and 15 February 2021
Version: V1.1 – September 2021

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Executive Summary

The following Bushfire Hazard Report has been prepared in support of a proposed three lot subdivision at 2015 Bruny Island Main Rd Great Bay.

The proposed development is within the Bushfire-Prone Areas overlay of the *Kingborough Interim Planning Scheme 2015* (the Scheme). The Scheme requires that the bushfire risk to the development and appropriate hazard management responses to those risks be considered during the planning process.

The proposed subdivision has been assessed against the requirements of the Code and AS 3959-2009 *Construction of Buildings in Bushfire Prone Areas* (AS 3959). A Bushfire Hazard Management Plan has been prepared, showing Hazard Management Areas which demonstrate the potential for existing and future habitable buildings to achieve a Bushfire Attack Level (BAL) rating of BAL-19 under Table 2.4.4 of AS 3959.

The Bushfire Hazard Management Plan demonstrates compliance with the acceptable solutions for subdivision under the Code and has been certified. It will accompany the final version of this report and will be provided to Kingborough Council as part of a development application for the proposed subdivision.

Jim Mulcahy – Enviro-dynamics Pty Ltd

ACCREDITED BUSHFIRE ASSESSOR (BFP-159)

CERTIFICATE No: ED0290

DATE: September 2021

Signed



Disclaimer

All reasonable steps have been taken to ensure that the information and advice contained in this report is an accurate reflection of the fire hazard affecting the proposed development at the time of the assessment and the hazard management measures necessary to meet the standards prescribed in E1.0 Bushfire Prone Areas Code of the *Kingborough Interim Planning Scheme 2015* and *Australian Standard AS 3959-2009*.

The prescribed hazard management measures are designed to reduce bushfire risk to existing and future habitable buildings on the site. The effectiveness of these measures relies on their implementation in full and their maintenance for the life of the development. No liability can be accepted for actions by landowners or third parties that undermine or compromise the integrity of prescriptions and recommendations contained in this report.

Due to the unpredictable nature of bushfires, particularly under extreme weather conditions, landowners should be aware that implementation and maintenance of the hazard management measures outlined in this report cannot guarantee that a building will survive a bushfire event.

Australian Standards

AS3959 – 2009 Construction of Buildings in Bushfire-Prone Areas has recently been superseded by *AS3959:2018*.

AS3959 2009 remains relevant for this report and will remain relevant until E1.0 Bushfire Prone Areas Code of the various Interim Planning Schemes has been updated to reference the new standard.

In respect of Bushfire Attack Level (BAL) determinations based on vegetation type and slope, the content of Table 2.4.4 in AS3959-2009 is the same as Table 2.6 in AS3959:2018. The new standard does include some changes to the description of Low threat vegetation and the Classification of Vegetation, but these changes do not materially affect the analysis contained in this report. As a result, to the best of the author's knowledge and understanding, the conclusions and prescribed separation distances contained in this report and the attached Bushfire Hazard Management Plan are consistent with the provisions of both AS3959-2009 and AS3959:2018.

1. Introduction

The following Bushfire Hazard Report has been undertaken to address the provisions of E1.0 Bushfire-Prone Areas Code (the Code) of the *Kingborough Interim Planning Scheme 2015* (the Scheme). The report provides an assessment of the bushfire hazard affecting the development and identifies protective features to ensure compliance with the Code in respect of hazard management areas, access for firefighting and water supplies for firefighting.

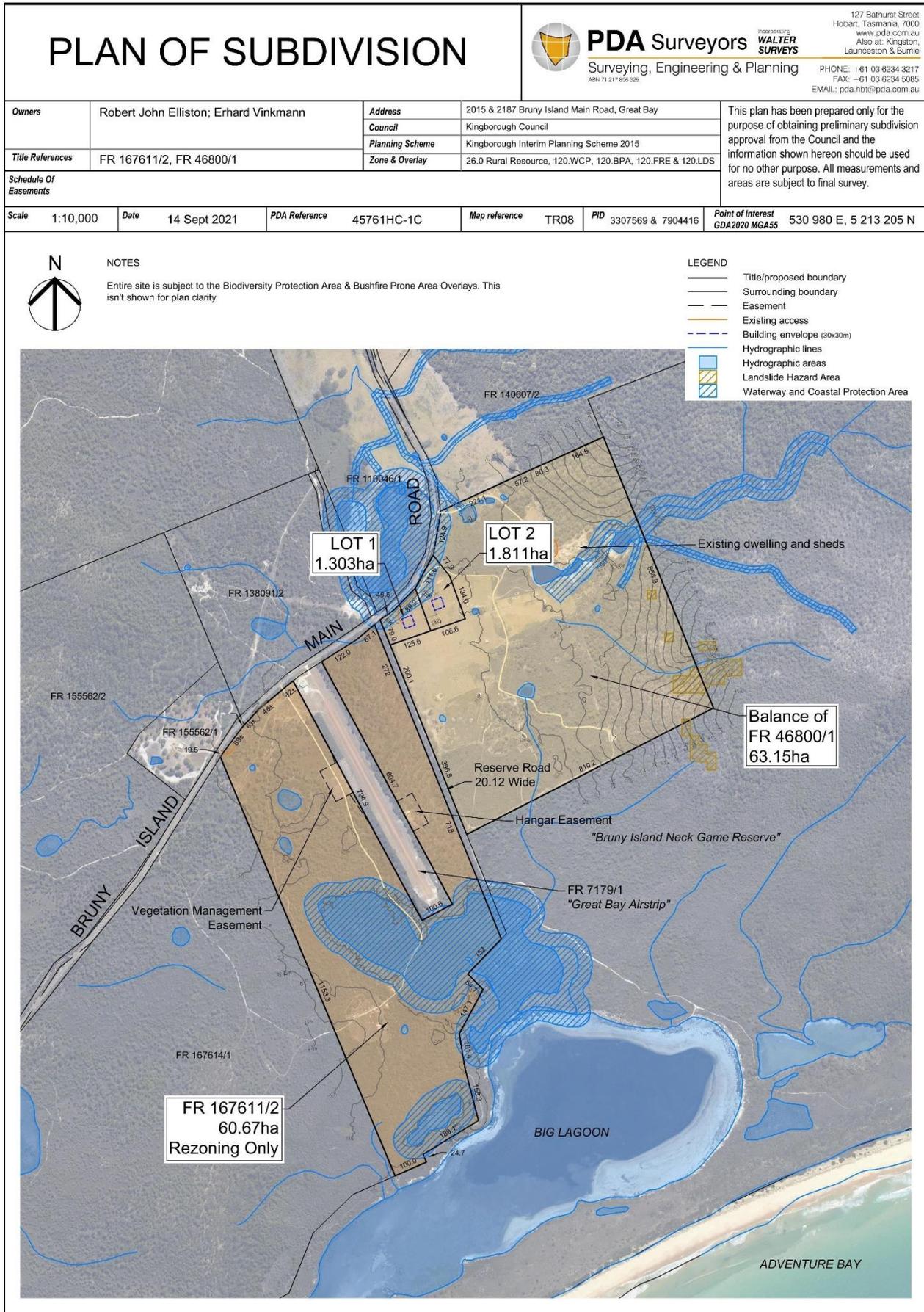
The analysis in this report has been used to prepare a Bushfire Hazard Management Plan (BHMP) which demonstrates the capacity of existing and future habitable buildings to meet the requirements of BAL-19 under *AS 3959-2009 Construction of Buildings in Bushfire Prone Areas* (AS3959).

1.1 Site Details

<u>Landowners:</u>	Erhard Vinkman
<u>Location:</u>	2015 Bruny Island Main Road Great Bay
<u>Title:</u>	CT 46800/1
<u>Municipality:</u>	Kingborough Council
<u>Zoning:</u>	Rural Resource with proposed re-zoning to Environmental Living
<u>Scheme Overlays:</u>	Bushfire Prone Areas (whole site), Biodiversity Protection Area (whole site), Waterway and Coastal Protection Area (wetlands & creeks), and Landslide Hazard Area – Low (small areas on steep slopes).
<u>Type of Development:</u>	Three (3) lot subdivision
<u>Date of Assessment:</u>	24 th December 2020 & 15 February 2021
<u>Reference Number:</u>	ED0290

1.2 Development Proposal

The site is subject to a combined application for re-zoning and subdivision under S43A of the *Land Use Planning and Approvals Act 1993*. The proposed rezoning from Rural Resource to Environmental Living does not materially affect the assessment of bushfire hazard. The proposal is to sub-divide the subject land into three lots – two lots and balance (see proposal plan at Figure 1).



1.3 Site Description

The subject land lies on the southern side of the Bruny Island Main Rd near the northern end of the Bruny Island Neck (see location map at Figure 2). It is surrounded to the east and south by the Bruny Island Neck Game Reserve. It contains an existing dwelling in the northeast of the property, along with two large dams at the terminus of Big Scrub Creek. The eastern third of the property is relatively steep forested land with a westerly aspect. The balance of the property is flat and contains a mix of exotic pasture and scrub.

The area of the proposed new lots (Lot 1 and Lot 2) is occupied predominantly by exotic pasture, with a narrow strip of scrub along the northern margins of the lots fronting Bruny Island Main Road.

The following is a summary of vegetation surrounding the proposed new lots and within 100m of indicative building areas (see context map at Figure 3):

- to the north is Bruny Island Main Road, beyond which lies relatively extensive areas of scrub, woodland and forest on private land,
- to the east lies pasture and scrub on the Balance lot,
- the south lies pasture on the Balance lot, and
- to the west is a narrow strip of public land supporting the public walking track to Cape Queen Elizabeth, beyond which lies relatively extensive areas of forest and woodland on private land.

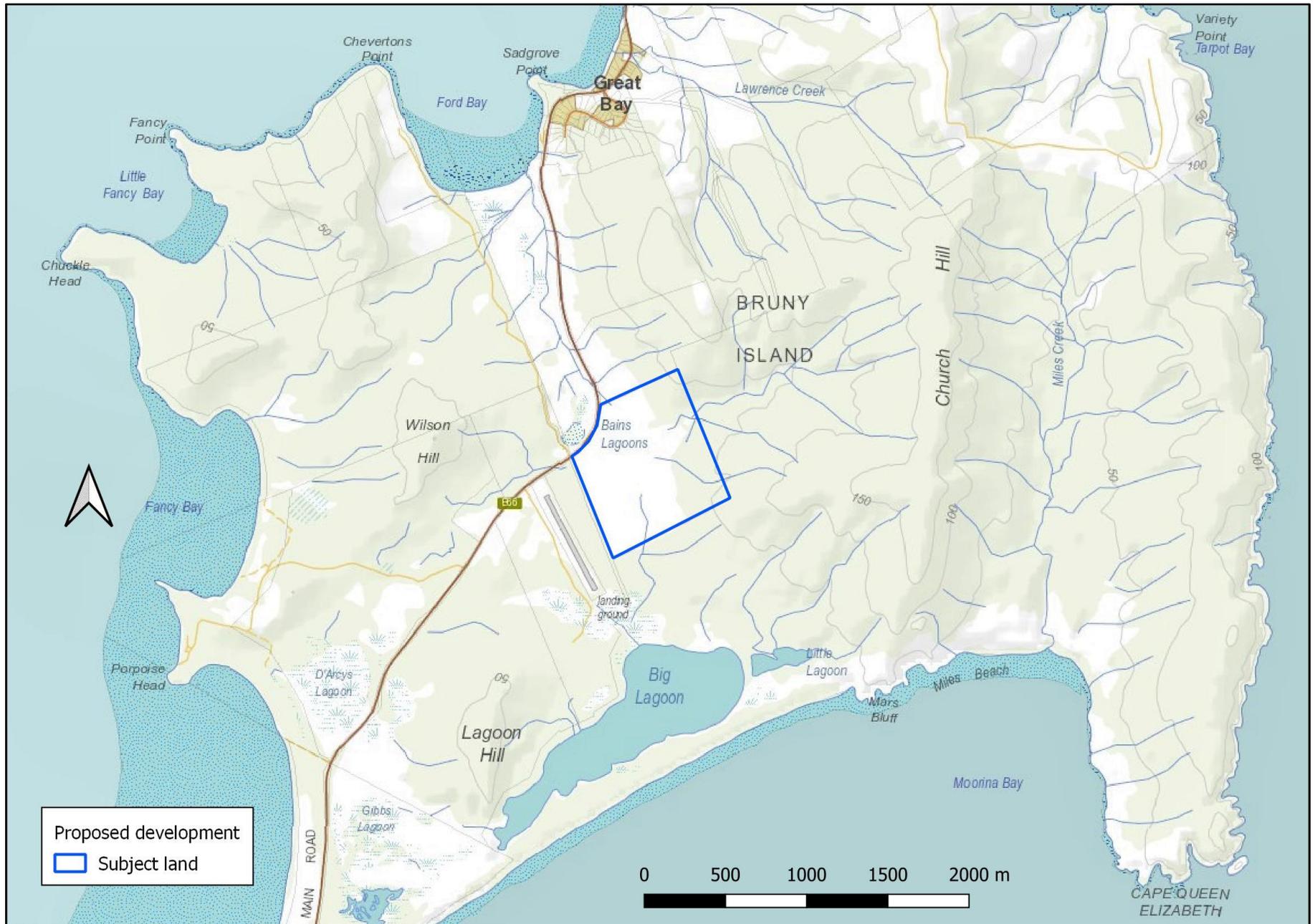


Figure 2 – Site Location (Source: TheList, 2021)

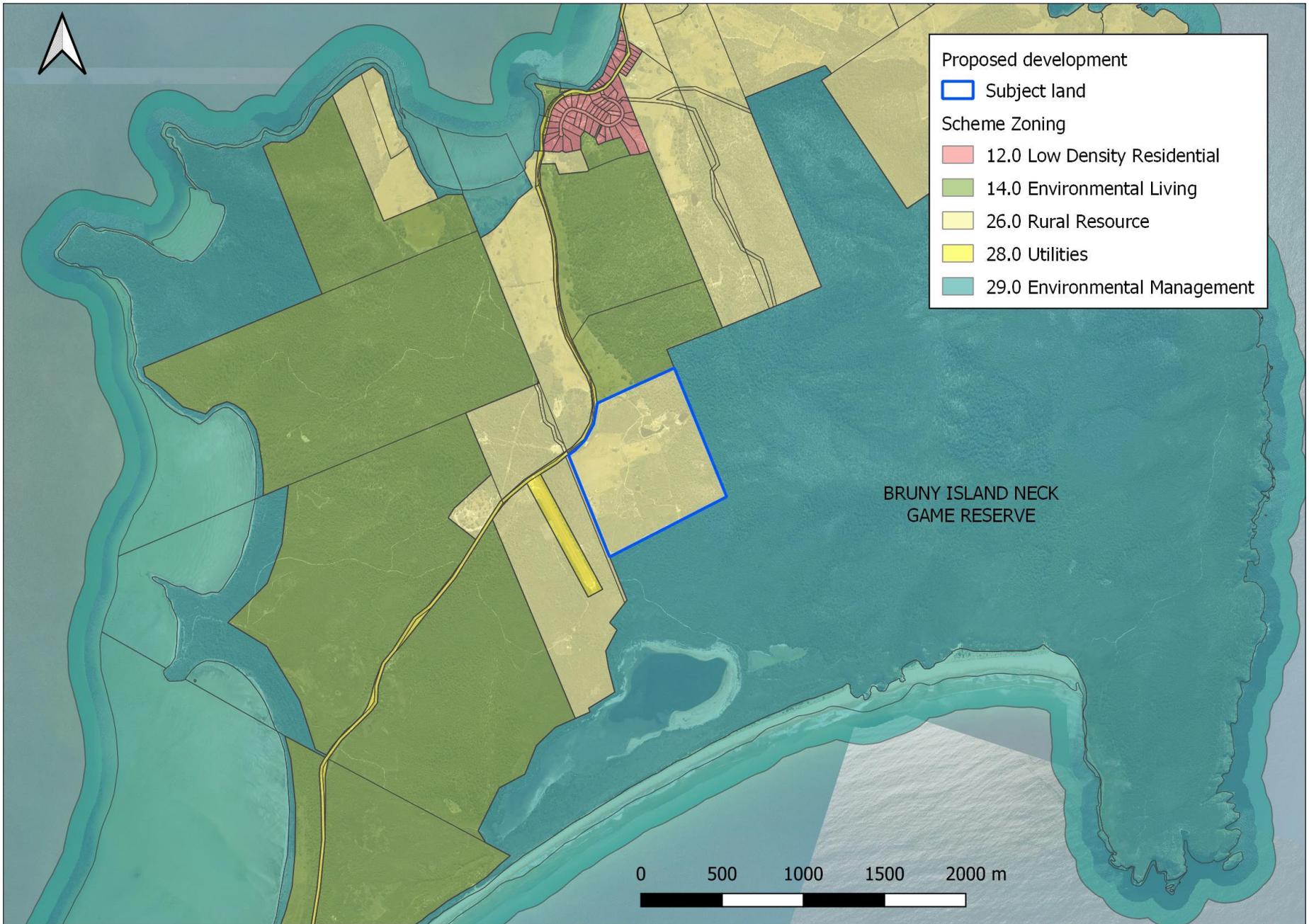


Figure 3 – Site Context and Zoning (Source: TheList, 2021)

2. Bushfire Hazard Assessment

Bushfire Hazard: slope and classified vegetation.

Potential Bushfire Attack Mechanisms: radiant heat, ember attack, wind, flame and smoke.

Bushfire Threat: in terms of the probability of extreme fire weather conditions, the main threat is from the north; in terms of vegetation, there are large areas of forest and scrub in all directions surrounding the site.

Fire History: the fire history layer on TheList indicates that the subject land was impacted by the 1966/67 bushfires but has not been impacted by bushfire since then.

Fire Danger Index: FDI 50 (this index applies across Tasmania).

Classified Vegetation:

Vegetation was assessed within 500m of the site for context and in more detail within 100m in all directions from the existing dwelling and indicative building areas. For the purposes of this assessment, vegetation was classified as per Table 2.3 of AS 3959-2009:

- all pasture beyond the immediate vicinity of the existing dwelling has been classified as G(i) Grassland (actual and potential),
- areas of weedy scrub to the north of the indicative building areas have been classified as D. Scrub, and
- all eucalypt woodland and forest in the vicinity of indicative building areas has been classified as A. Forest (actual and potential).

Significant Natural Values (potentially limiting hazard management works)

There are no significant natural values in the vicinity of the existing dwelling or indicative building areas that would limit hazard management potential.

Hazard Assessment

The subject land and surrounds were surveyed by the author on 24th December 2020 and 15th February 2021 with reference to the proposal plan. Information and images were collected which allowed assessment of *Bushfire Attack Level* (BAL) using *Method 1 (Simplified Procedure)* of AS3959 (see Tables 1-6 and Figures 4-5).

Table 1 – Separation distance calculations for Indicative Building Area on Lot 1

Direction	Vegetation Classification [#]	Effective Slope under vegetation	Approx. distance from dwelling (m)	Current BAL rating	Separation distance for BAL-19 (m)	Prescribed minimum hazard management area
North	G (i). Grassland	+/- flat	0-12	BAL-FZ	10-<14	20m
	D. Scrub	+/- flat to upslope (dune)	12-51	BAL-40	19-<27	
	Non-veg. (road & verge)	-	51-68	-	-	
	D. Scrub	Upslope to downslope 1-2 ⁰	68-100	BAL-12.5	-	
East	G (i). Grassland	Upslope	0-100	BAL-FZ	10-<14	10m
South	G (i). Grassland	+/- flat	0-100	BAL-FZ	10-<14	10m
West	Low threat* (lawn & garden))	+/- flat	0-50	BAL-FZ	10-<14	10m
	A. Forest	+/- flat	50-100	BAL-12.5	-	
North West	G (i). Grassland	+/- flat	0-13	BAL-FZ	10-<14	20m
	D. Scrub	+/- flat to upslope (dune)	13-43	BAL-29	19-<27	
	Non-veg. (road & verge)	-	43-55	-	-	
	D. Scrub	Upslope	55-100	BAL-12.5	-	

* Exclusion under AS3959-2009 2.2.3.2 # Classification as per AS3959-2009 amendment 3, Table 2.3 and Figures 2.4(A)-2.4(G)

Table 2 – Separation distance calculations for Indicative Building Area on Lot 2

Direction	Vegetation Classification [#]	Effective Slope under vegetation	Approx. distance from dwelling (m)	Current BAL rating	Separation distance for BAL-19 (m)	Prescribed minimum hazard management area
North	G (i). Grassland	+/- flat	0-30	BAL-FZ	10-<14	10m
	D. Scrub	+/- flat to upslope (dune)	30-100	BAL-12.5	-	
East	G (i). Grassland	Upslope	0-100	BAL-FZ	10-<14	10m
South	G (i). Grassland	+/- flat	0-100	BAL-FZ	10-<14	10m
West	Low threat* (lawn & garden))	Downslope 1-2 ⁰	0-100	BAL-FZ	11-<16	11m
North West	G (i). Grassland	+/- flat	0-22	BAL-FZ	10-<14	20m
	D. Scrub	+/- flat to upslope (dune)	22-65	BAL-19	19-<27	
	Non-veg. (road & verge)	-	65-82	-	-	
	D. Scrub	Upslope to downslope 1-2 ⁰	82-100	BAL-12.5	-	

* Exclusion under AS3959-2009 2.2.3.2 # Classification as per AS3959-2009 amendment 3, Table 2.3 and Figures 2.4(A)-2.4(G)

Table 3 – Separation distance calculations for existing dwelling on Balance lot

Direction	Vegetation Classification [#]	Effective Slope under vegetation	Approx. distance from dwelling (m)	Current BAL rating	Separation distance for BAL-19 (m)	Prescribed minimum hazard management area
North	Low threat* & non-veg* ('lawn', garden & drive)	-	0-20	-	-	27m
	A. Forest	Downslope 3° to upslope	20-100	BAL-29	27-<38	
North East	Low threat* & non-veg* (garden & track)	Upslope	0-46	-	-	20m
	D. Scrub (potential)	Upslope	46-82	BAL-12.5	-	
	A. Forest	Upslope	82-100	BAL-12.5	-	
East	Low threat* ('lawn' & garden)	-	0-21	-	-	28m
	D. Scrub	Downslope 12° to upslope	21-100	BAL-29	28-<39	
South	Low threat* ('lawn')	-	0-13	-	-	24m
	D. Scrub (potential)	Downslope 6°	13-39	BAL-40	24-<35	
	Non-veg. (dam)	-	39-54	-	-	
	D. Scrub (potential)	Upslope	54-100	BAL-12.5	-	
West	Low threat* & non-veg* ('lawn' & drive)	-	0-18	-	-	27m
	A. Forest	Downslope 4°	18-75	BAL-40	27-<38	
	Non-veg. (drive)	-	75-82	-	-	
	D. Scrub (potential)	Downslope 3°	82-100	BAL-12.5	-	

* Exclusion under AS3959-2009 2.2.3.2 # Classification as per AS3959-2009 amendment 3, Table 2.3 and Figures 2.4(A)-2.4(G)

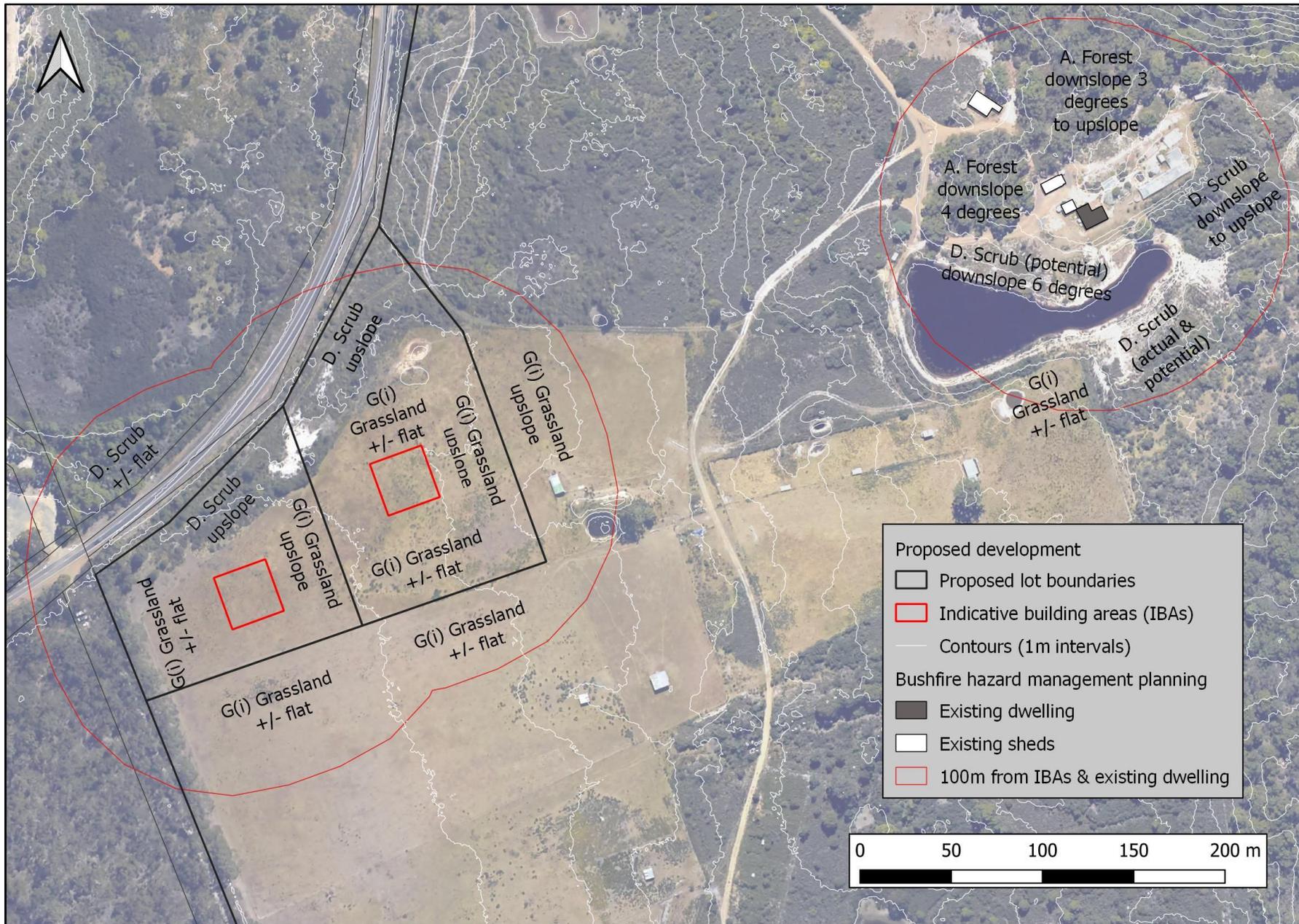


Figure 4 – Bushfire Hazard Assessment Map

3. Bushfire Management Measures

The site is within the Bushfire-Prone Areas overlay of the *Kingborough Interim Planning Scheme 2015* (the Scheme). The existing dwelling and indicative building areas for vacant lots are all surrounded by bushfire-prone vegetation as defined under AS3959.

The requirements for all subdivision in a bushfire-prone area are set out under clause E1.6.1 of *E1.0 Bushfire-Prone Areas Code* (the Code) of the Scheme. They include:

- provision of *Hazard Management Areas* (E1.6.1),
- access for firefighting (E1.6.2), and
- provision of water supply for fire-fighting purposes (E1.6.3).

The proposed subdivision must comply with the following clauses of the Code (shaded clauses in Table 1).

Table 1– Compliance with E1.0

CLAUSE	ISSUE
E1.2	Application of Code
E1.3	Definition of terms in this Code
E1.4	Use or development exempt from this Code
E1.5	Use Standards
E1.5.1	Vulnerable Uses
E1.5.2	Hazardous Uses
E1.6	Developments Standards
E1.6.1	Development Standard for Subdivision: Provision of hazard management areas (HMA) for habitable buildings
E1.6.2	Subdivision: Public and fire-fighting access
E1.6.3	Subdivision: Provision of water supply for fire-fighting purposes

3.2 Hazard Management Areas

The objectives of providing Hazard Management Areas (HMAs) are:

- to facilitate an integrated approach between subdivision and subsequent building on a lot, and
- to provide for sufficient separation of building areas from bushfire-prone vegetation to reduce radiant heat levels, direct flame attack and ember attack at the building area.

HMAs provide cleared space between buildings and bushfire hazards. Any vegetation in this area needs to be maintained in a low fuel state to protect buildings from direct flame contact, ember attack and intense radiant heat, thereby allowing them to be defended from lower intensity bushfires.

Further information on the maintenance of 'defendable spaces' can be found on the TFS website: <http://www.fire.tas.gov.au/Show?pageId=colBuildingForBushfire>.

Requirements

In summary, the acceptable solutions under E1.6.1 A1 of the Code require that:

- b) The proposed plan of subdivision:
 - (ii) shows the building area for each lot, and
 - (iii) shows hazard management areas between bushfire-prone vegetation and each building area that have dimensions equal to, or greater than, the separation distances required for BAL 19 in Table 2.4.4 of AS3959.

Compliance

- The bushfire hazard assessment indicates that existing and future habitable buildings require HMAs to provide separation distances from bushfire prone vegetation sufficient to meet the requirements of BAL-19 under Table 2.4.4 of AS3959 (see Tables 1-3 and Figure 4).
- All lots can accommodate HMAs meeting the requirements of BAL-19 entirely within the lot boundaries.
- The BHMP at Attachment 1 defines HMAs with sufficient separation distances from bushfire prone vegetation to allow existing and future habitable buildings to meet the requirements of BAL-19.

Maintenance of Hazard Management Areas

HMAs for vacant lots (as defined on the attached BHMP) must be established at the time of building on those lots and must be maintained for the life of the development.

To minimise bushfire hazard to existing and future habitable buildings, HMAs must be maintained as low threat vegetation and/or non-vegetated land (as defined by Clause 2.2.3.2 of AS3959-2009). The need to maintain effective HMAs into the future must be considered when planting gardens and making landscaping choices. An annual inspection and maintenance of HMAs should be conducted prior to the bushfire season or any other

identified period of high fire risk and any flammable material such as leaves, litter, wood piles should be removed.

3.3 Public and Fire-fighting Access

The objectives for roads, property access and fire trails within a subdivision are:

- to allow safe access and egress for residents, fire fighters and emergency services personnel,
- to provide access to the bushfire-prone vegetation that allows both property to be defended when under bushfire attack and for hazard management works to be undertaken,
- to provide access to water supplies for fire appliances,
- that design and construction allow for fire appliances to be manoeuvred, and
- that design allows connectivity, and where needed, offers multiple evacuation points.

Requirements

Property access is required to access a fire-fighting water point on all lots. In summary, the acceptable solutions under E1.6.2 of the Code require that:

- (a) TFS or an accredited person certifies that there is an insufficient increase in risk from bushfire to warrant specific measures for public access in the subdivision for the purposes of firefighting, or
- (b) A proposed plan of subdivision showing the location of property access to building areas is included in a bushfire hazard management plan that:
 - (i) demonstrates proposed private accesses will comply with Table E2, and
 - (ii) is certified by the TFS or an accredited person.

Current conditions

All lots will be accessed from Bruny Island Main Rd, which is a sealed State road with a formation +/- 7m wide where it fronts the subject land.

The existing dwelling is serviced by a gravel driveway +/- 4m wide and approximately 480m long which terminates in a circular drive.

Compliance

Bruny Island Main Road provides adequate access for fire-fighting purposes. The existing gravel driveway servicing the dwelling on the Balance of CT 46800/1 is compliant with the Code as a property access for fire-fighting purposes.

The indicative property access provisions shown on the attached BHMP demonstrate the capacity of all lots to accommodate property access compliant with the Code. At the time of construction, the owners/developers must ensure that new property accesses comply in all respects with the provisions of Table E2, as outlined below.

The following are the requirements for property access pursuant to Table E2 of the Code:

- all- weather construction,
- load capacity of at least 20 t, including for bridges and culverts,
- minimum carriageway width of 4 m,
- minimum vertical clearance of 4 m,
- minimum horizontal clearance of 0.5 m from the edge of the carriageway,
- cross falls of less than 3 degrees (1:20 or 5%),
- dips less than 7 degrees (1:8 or 12.5%) entry and exit angle,
- curves with a minimum inner radius of 10 m,
- maximum gradient of 15 degrees (1:3.5 or 28%) for sealed roads, and 10 degrees (1:5.5 or 18%) for unsealed roads, and
- terminate with a turning area for fire appliances provided by one of the following:
 - a turning circle with a minimum outer radius of 10m, or
 - a property access encircling the building, or
 - a hammerhead “T” or “Y” turning head 4 m wide and 8 m long, and
- because the property access to the existing dwelling is greater than 200m in length, it also requires:
 - passing bays of 2m additional carriageway width and 20m length every 200m.

3.4 Fire-fighting Water Supply

The objective in provision of water supply for fire-fighting purposes is that:

- adequate, accessible and reliable water supply for the purposes of firefighting can be demonstrated at the subdivision stage and allow for the protection of life and property associated with the subsequent use and development of bush fire-prone areas.

Requirements

The development occurs in an area not serviced with reticulated water supply and static water supplies will be required for fire-fighting purposes. In summary, the acceptable solutions under E1.6.3 A1 require that:

- (a) The TFS or an accredited person certifies that there is an insufficient increase in risk from bushfire to warrant provision of a water supply for firefighting purposes, or
- (b) The TFS or an accredited person certifies that a proposed plan of subdivision demonstrates that a static water supply, dedicated to firefighting, will be provided and located compliant with Table E5, or

- (c) A bushfire hazard management plan certified by the TFS or an accredited person demonstrates that the provision of water supply for firefighting purposes is sufficient to manage the risks to property and lives in the event of a bushfire.

Current conditions

The existing dwelling is serviced by a number of water tanks, but there is currently no compliant water tank dedicated to firefighting. The large dam in the vicinity of the dwelling provides an alternative water source for fire-fighting purposes.

Compliance

The indicative water tanks for firefighting shown on the BHMP at Attachments 1 demonstrates the capacity of all lots to support static water supplies compliant with the Code. A compliant static water supply for firefighting must be installed to service the existing dwelling prior to sealing of the final plans. Static water supplies for firefighting must be established on Lot 1 and Lot 2 at the time of building on the lots.

At the time of construction/installation, the owners/developers must ensure that new static water supplies for firefighting comply in all respects with the provisions of Table E5, as outlined below.

The following are the requirements pursuant to Table E5 of the Code:

- *Distance between building area to be protected and water supply:*
 - The building area to be protected must be located within 90m of the fire-fighting water point of a static water supply, and
 - The distance must be measured as a hose lay, between the fire-fighting water point and the furthest part of the building area.
- *Static water supply requirements:*
 - May have a remotely located off-take connected to the static water supply,
 - May be a supply for combined use (firefighting and other uses) but the specified minimum quantity of firefighting water must be available at all times,
 - 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 firefighting sprinkler or spray systems,
 - Must be metal, concrete or lagged by non-combustible materials if above ground, and
 - If a tank can be located so it is shielded in all directions in compliance with Section 3.5 of AS3959-2009, the tank may be constructed of any material provided that the lowest 400 mm of the tank exterior is protected by: metal, non-combustible material, or fibre-cement a minimum of 6 mm thickness.
- *Fittings and pipework and accessories requirements*

Fittings and pipework associated with a water connection point for a static water supply must:

- have a minimum nominal internal diameter of 50 mm,
- be fitted with a valve with a minimum nominal internal diameter of 50 mm,
- be metal or lagged by non-combustible materials if above ground,
- if buried, have a minimum depth of 300 mm (compliant with AS/NZS 3500.1-2003 Clause 5.23),
- provide a DIN or NEN standard forged Storz 65 mm coupling fitted with a suction washer for connection to fire-fighting equipment,
- ensure the coupling is accessible and available for connection at all times,
- ensure the coupling is fitted with a blank cap and securing chain (minimum 220mm length),
- ensure underground tanks have either an opening at the top of not less than 250 mm dia. or coupling compliant with Table 4.3B, and
- if a remote offtake is installed, ensure the offtake is in a position that is visible; accessible to allow connection by fire-fighting equipment; at working height of 450–600mm above ground level; and protected from possible damage, including damage by vehicles.
- *Signage for static water connections requirements.*
 - 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 comply with:
 - Water tank signage requirements within AS 2304-2011 *Water storage tanks for fire protection systems*, or
 - Comply with the Tasmania Fire Service Guideline – be marked with the letter “W” contained within a circle with the letter in upper case of not less than 100 mm in height; marked in fade-resistant material with white reflective lettering and circle on a red background; be located within one metre of the water connection point in a situation which will not impede access or operation; and be no less than 400 mm above the ground.
- *Hardstand area for fire appliances requirements:*
 - 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),
 - No closer than 6m from the building area to be protected,
 - A minimum width of 3m constructed to the same standard as the carriageway, and
 - Connected to the property access by a carriageway equivalent to the standard of the property access.

4. Recommendations

The existing dwelling on the Balance lot is unlikely to meet any BAL construction standards. It is recommended that the owner assess the building in the light of BAL-19 construction standards and consider upgrading elements to make the structure more resistant to bushfire attack.

5. Conclusion

The Bushfire Hazard Management Plan at Attachment 1 demonstrates the capacity of the subdivision to comply with the Code and AS3959 in respect of 'Hazard management areas', 'Public and fire-fighting access' and 'Provision of water supply for firefighting purposes'. As a result, the Bushfire Hazard Management Plan has been certified.

6. Glossary and Abbreviations

AS – Australian Standard

BAL – Bushfire Attack Level – means of measuring the severity of a building’s potential exposure to ember attack, radiant heat and direct flame contact, using increments of radiant heat expressed in kilowatts per metre squared, and the basis for establishing the requirements for construction to improve protection of building elements from attack by bushfire (AS3959-2009).

BFP – Bush Fire Practitioner certified to undertake assessments of bushfire hazard and certify Bushfire Hazard Management Plans.

BHMP – Bushfire Hazard Management Plan – plan for individual house or subdivision identifying separation distances required between a dwelling(s) and bushfire prone vegetation based on the BAL for the site. The BHMP also indicates requirements for construction, property access and fire-fighting water.

FDI – fire danger index – relates to the chance of a fire starting, its rate of spread, its intensity and the difficulty of its suppression, according to various combinations of air temperature, relative humidity, wind speed and both the long- and short-term drought effects (AS3959-2009).

ha – hectares; m – meters

HMA – Hazard Management Area – the area, between a habitable building or building area and the bushfire-prone vegetation, which provides access to a fire front for firefighting, which is maintained in a minimal fuel condition and in which there are no other hazards present which will significantly contribute to the spread of a bushfire.

7. References

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APPENDIX 1 – Illustrative photos of vegetation & access



Photo 1: Typical section of Bruny Island Main Rd on frontage to the subject land



Photo 2: Driveway access to existing dwelling (Balance lot)



Photo 3: Location of passing bay on existing driveway



Photo 4: Circular drive on approach to existing dwelling (providing passing potential)



Photo 5: Existing dwelling viewed from the south

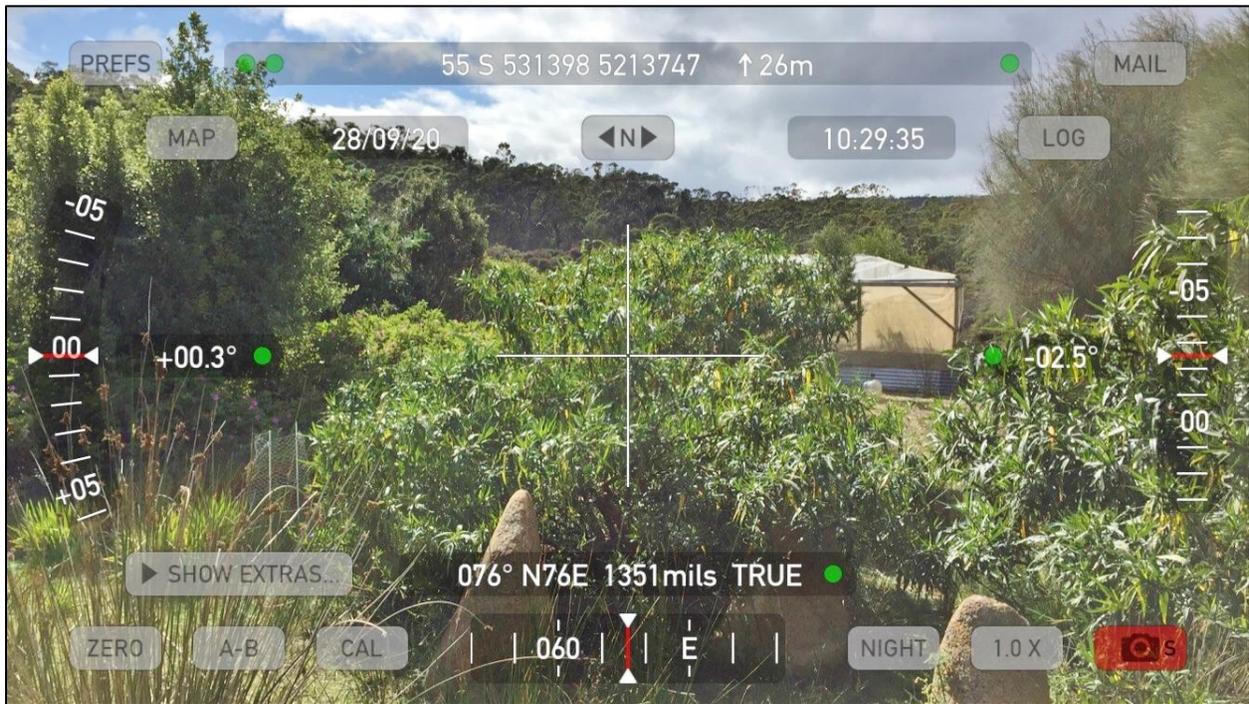


Photo 6: Garden directly north of the existing dwelling



Photo 7: Managed land, dam, scrub and forest directly east of the existing dwelling



Photo 8: Managed land, scrub (potential) and dam directly south of the existing dwelling



Photo 9: Managed land and forest directly west of the Existing Dwelling



Photo 10: Scrub and forest north of the existing dwelling and gardens



Photo 11: Forest north-west of the existing dwelling and managed land



Photo 19: Proposed access point to Lot 1 and Lot 2



Photo 20: Scrub between Bruny Island Main Rd and indicative building areas on Lot 1 and Lot 2

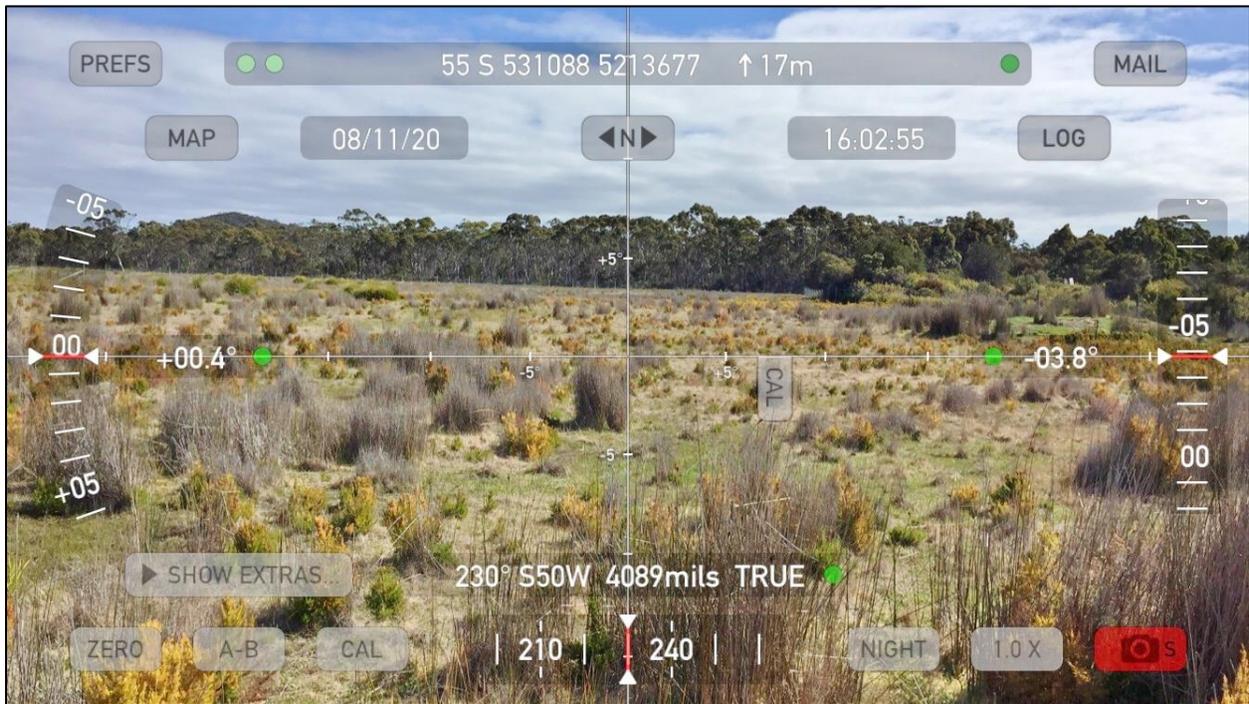


Photo 21: Pasture (G(i) Grassland) on and around Lot 1 and Lot 2 when viewed from the north

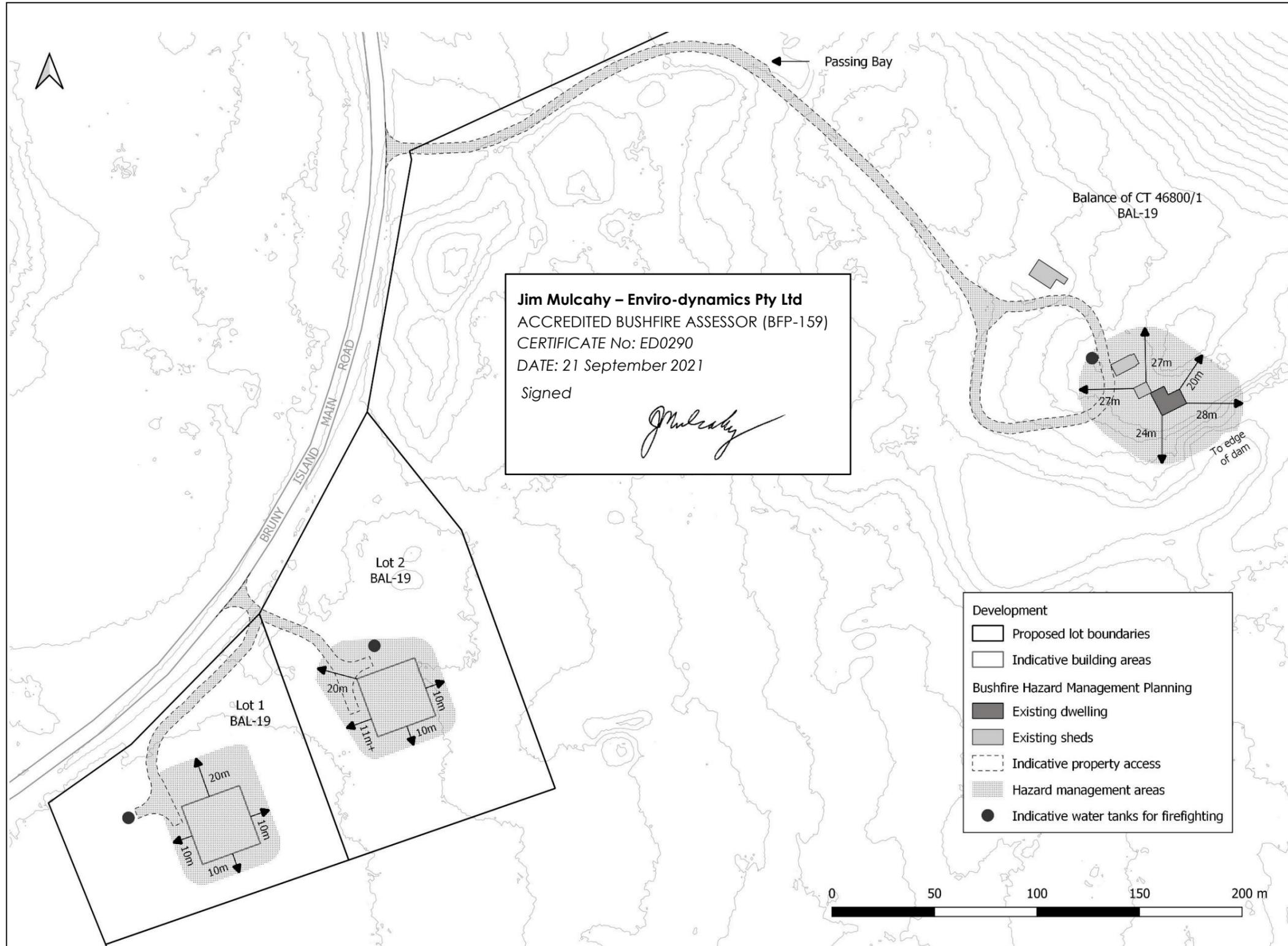


Photo 22: Pasture (G(i) Grassland) on and around Lot 1 and Lot 2 when viewed from the south



Photo 23: Forest on Crown land south of Lot 1

ATTACHMENT 1 – Bushfire Hazard Management Plan – proposed three lot subdivision, 2015 Bruny Island Main Road, Great Bay, V1.1 - September 2021



Jim Mulcahy – Enviro-dynamics Pty Ltd
 ACCREDITED BUSHFIRE ASSESSOR (BFP-159)
 CERTIFICATE No: ED0290
 DATE: 21 September 2021
 Signed *Jim Mulcahy*

Development	
	Proposed lot boundaries
	Indicative building areas
Bushfire Hazard Management Planning	
	Existing dwelling
	Existing sheds
	Indicative property access
	Hazard management areas
	Indicative water tanks for firefighting

Hazard Management Areas (HMAs)

- HMAs on Lot 1 and Lot 2 must be established at the time of building on the lots, made compliant before occupancy of any habitable buildings and maintained as 'low threat vegetation' or 'non-vegetated land' (as defined by Clause 2.2.3.2 of AS3959) for the life of the development.
- No trees or branches should overhang habitable buildings.
- Trees and shrubs should be separated to create discontinuous 'clumps' and a minimum 20m separation should be maintained between clumps.
- A minimum 2m horizontal separation should be maintained between tree canopies and low branches should be removed to create a minimum 2m vertical separation between tree canopy and underlying vegetation.
- Grassland, pasture and lawn must be kept short (less than 100mm).
- Fine fuels such as leaves, bark and twigs should be removed from the ground periodically, particularly leading into summer.
- Flammable vegetation should not be retained or planted under or directly adjacent to habitable buildings (particularly decks, flammable cladding and glazed elements) or in corridors which can act as a 'wick' to channel fire to habitable buildings.
- Flammable material such as firewood, building materials, organic mulch and fuel should not be stored under or adjacent to decks or habitable buildings.

Public and Firefighting Access

- Property access to Lot 1 and Lot 2 must be constructed at the time of building on the lots and made compliant before occupancy of any habitable buildings.
- This plan shows indicative property access corridors which are 5m wide, terminate in compliant turning areas and provide passing bays where required.
- At the time of construction, owners/developers must ensure that property accesses comply in all respects with Table E2 of the Code.

Water Supply for Firefighting

- Static water supplies for firefighting to service the existing dwelling must be provided prior to sealing of the final plan.
- Static water supplies for firefighting to service Lot 1 and Lot 2 must be provided at the time of building on the lots and made compliant before occupancy of any habitable buildings.
- This plan shows indicative water tanks for firefighting located within 3m of a hardstand, more than 6m from the indicative building areas/dwelling and within 90m hose lay of the furthest parts of the indicative building areas/dwelling.
- At the time of installation, owners/developers must ensure that static water supplies for firefighting comply in all respects with Table E5 of the Code.

Construction Standards

- This plan only certifies that future habitable buildings constructed within indicative building areas can achieve the separation distances required to allow construction to BAL-19.

For: Erhard Vinkman
Titles: CT 46800/1
Assessment #: 0290



This plan is to be printed at A3 and read in conjunction with Bushfire Hazard Report for proposed three lot subdivision at 2015 Bruny Island Main Road, Great Bay (v1.1, Enviro-dynamics, September 2021).

BUSHFIRE-PRONE AREAS CODE

CERTIFICATE¹ UNDER S51(2)(d) *LAND USE PLANNING AND APPROVALS ACT 1993*

1. Land to which certificate applies

The subject site includes property that is proposed for use and development and includes all properties upon which works are proposed for bushfire protection purposes.

Street address:

2015 Bruny Island Main Road, Great Bay 7150

Certificate of Title / PID:

CT 46800/1

2. Proposed Use or Development

Description of proposed Use
and Development:

Three (3) lot subdivision

Applicable Planning Scheme:

Kingborough Interim Planning Scheme 2015

3. Documents relied upon

This certificate relates to the following documents:

Title	Author	Date	Version
Plan of Subdivision - 2015 & 2187 Bruny Island Main Road, Great Bay	PDA Surveyors	14 September 2021	1C
Bushfire Hazard Report – for proposed three lot subdivision at 2015 Bruny Island Main Road, Great Bay	Enviro-dynamics	September 2021	1.1
Bushfire Hazard Management Plan – proposed three lot subdivision at 2015 Bruny Island Main Road, Great Bay	Enviro-dynamics	21 September 2021	1.1

¹ This document is the approved form of certification for this purpose and must not be altered from its original form.

4. Nature of Certificate

The following requirements are applicable to the proposed use and development:

<input type="checkbox"/> E1.4 / C13.4 – Use or development exempt from this Code	
Compliance test	Compliance Requirement
<input type="checkbox"/> E1.4(a) / C13.4.1(a)	Insufficient increase in risk

<input type="checkbox"/> E1.5.1 / C13.5.1 – Vulnerable Uses	
Acceptable Solution	Compliance Requirement
<input type="checkbox"/> E1.5.1 P1 / C13.5.1 P1	
<input type="checkbox"/> E1.5.1 A2 / C13.5.1 A2	Emergency management strategy
<input type="checkbox"/> E1.5.1 A3 / C13.5.1 A2	Bushfire hazard management plan

<input type="checkbox"/> E1.5.2 / C13.5.2 – Hazardous Uses	
Acceptable Solution	Compliance Requirement
<input type="checkbox"/> E1.5.2 P1 / C13.5.2 P1	
<input type="checkbox"/> E1.5.2 A2 / C13.5.2 A2	Emergency management strategy
<input type="checkbox"/> E1.5.2 A3 / C13.5.2 A3	Bushfire hazard management plan

<input checked="" type="checkbox"/> E1.6.1 / C13.6.1 Subdivision: Provision of hazard management areas	
Acceptable Solution	Compliance Requirement
<input type="checkbox"/> E1.6.1 P1 / C13.6.1 P1	
<input type="checkbox"/> E1.6.1 A1 (a) / C13.6.1 A1(a)	Insufficient increase in risk
<input checked="" type="checkbox"/> E1.6.1 A1 (b) / C13.6.1 A1(b)	Provides BAL-19 for all lots (including any lot designated as 'balance')
<input type="checkbox"/> E1.6.1 A1(c) / C13.6.1 A1(c)	Consent for Part 5 Agreement

<input checked="" type="checkbox"/>	E1.6.2 / C13.6.2 Subdivision: Public and fire fighting access	
	Acceptable Solution	Compliance Requirement
<input type="checkbox"/>	E1.6.2 P1 / C13.6.2 P1	
<input type="checkbox"/>	E1.6.2 A1 (a) / C13.6.2 A1 (a)	Insufficient increase in risk
<input checked="" type="checkbox"/>	E1.6.2 A1 (b) / C13.6.2 A1 (b)	Access complies with relevant Tables

<input checked="" type="checkbox"/>	E1.6.3 / C13.1.6.3 Subdivision: Provision of water supply for fire fighting purposes	
	Acceptable Solution	Compliance Requirement
<input type="checkbox"/>	E1.6.3 A1 (a) / C13.6.3 A1 (a)	Insufficient increase in risk
<input type="checkbox"/>	E1.6.3 A1 (b) / C13.6.3 A1 (b)	Reticulated water supply complies with relevant Table
<input type="checkbox"/>	E1.6.3 A1 (c) / C13.6.3 A1 (c)	Water supply consistent with the objective
<input type="checkbox"/>	E1.6.3 A2 (a) / C13.6.3 A2 (a)	Insufficient increase in risk
<input checked="" type="checkbox"/>	E1.6.3 A2 (b) / C13.6.3 A2 (b)	Static water supply complies with relevant Table
<input type="checkbox"/>	E1.6.3 A2 (c) / C13.6.3 A2 (c)	Static water supplies consistent with the objective

5. Bushfire Hazard Practitioner

Name:	Jim Mulcahy	Phone No:	0424 505 184
Postal Address:	16 Collins Street Hobart 7001	Email Address:	jim.mulcahy@enviro-dynamics.com.au
Accreditation No:	BFP – 159	Scope:	1 & 3B, provisional 3C

6. Certification

I certify that in accordance with the authority given under Part 4A of the *Fire Service Act 1979* that the proposed use and development:

- Is exempt from the requirement Bushfire-Prone Areas Code because, having regard to the objective of all applicable standards in the Code, there is considered to be an insufficient increase in risk to the use or development from bushfire to warrant any specific bushfire protection measures, or
- The Bushfire Hazard Management Plan/s identified in Section 3 of this certificate is/are in accordance with the Chief Officer's requirements and compliant with the relevant **Acceptable Solutions** identified in Section 4 of this Certificate.

Signed:
certifier



Name:

Jim Mulcahy

Date: 21/9/2021

Certificate
Number: BP0290

(for Practitioner Use only)