

BUSHFireSafe (AUST) PTY LTD

ABN 83 650 209 813
Contact: 0428 169 294

4.14/NEW DWELLING BUSHFIRE HAZARD ASSESSMENT REPORT

Assessing Officer	Kim Stewart	Reference #	21015
S4.14 Assessment	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Lot #	2
Owners Name	Yuki & Takayo Koresawa	DP	SP57243
Street Address	1 Luan Court, Byron Bay		


Desk Top Assessment	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Site Inspection	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Date	22/07/2021
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Proposal	New Dwelling
Site Notes	The subject property is located within a developed residential area within the township of Byron Bay. It is proposed to construct a new dwelling within the property. The property has a total area of 407m ² and is zoned R2 Low Density Residential within the Byron Bay Shire Council LEP.

ASPECT	North	South	East	West
Keith (2004) Vegetation Classification	<input type="checkbox"/> Rainforest <input type="checkbox"/> Forest <input type="checkbox"/> Forested Wetland <input type="checkbox"/> Short Heath <input type="checkbox"/> Tall Heath <input type="checkbox"/> Grassland <input checked="" type="checkbox"/> Residential	<input type="checkbox"/> Rainforest <input type="checkbox"/> Forest <input type="checkbox"/> Forested Wetland <input type="checkbox"/> Short Heath <input type="checkbox"/> Tall Heath <input type="checkbox"/> Grassland <input checked="" type="checkbox"/> Residential	<input type="checkbox"/> Rainforest <input checked="" type="checkbox"/> Forest <input type="checkbox"/> Forested Wetland <input type="checkbox"/> Short Heath <input type="checkbox"/> Tall Heath <input type="checkbox"/> Grassland <input type="checkbox"/> Residential	<input type="checkbox"/> Rainforest <input type="checkbox"/> Forest <input type="checkbox"/> Forested Wetland <input type="checkbox"/> Short Heath <input type="checkbox"/> Tall Heath <input type="checkbox"/> Grassland <input checked="" type="checkbox"/> Residential
Slope under the Vegetation (over 100m)	<input type="checkbox"/> Upslope/Flat <input type="checkbox"/> >0 to 5 <input type="checkbox"/> >5 to 10 <input type="checkbox"/> >10 to 15 <input type="checkbox"/> > 15 to 20 <input type="checkbox"/> Varies over site	<input checked="" type="checkbox"/> Upslope/Flat <input type="checkbox"/> >0 to 5 <input type="checkbox"/> >5 to 10 <input type="checkbox"/> >10 to 15 <input type="checkbox"/> > 15 to 20 <input type="checkbox"/> Varies over site	<input checked="" type="checkbox"/> Upslope/Flat <input type="checkbox"/> >0 to 5 <input type="checkbox"/> >5 to 10 <input type="checkbox"/> >10 to 15 <input type="checkbox"/> > 15 to 20 <input type="checkbox"/> Varies over site	<input type="checkbox"/> Upslope/Flat <input type="checkbox"/> >0 to 5 <input type="checkbox"/> >5 to 10 <input type="checkbox"/> >10 to 15 <input type="checkbox"/> > 15 to 20 <input type="checkbox"/> Varies over site
Radiant Heat (BAL Model) Level of Construction	Rad. Heat <input type="checkbox"/> BAL-LOW <input type="checkbox"/> BAL-12.5 <input checked="" type="checkbox"/> BAL-19 <input type="checkbox"/> BAL-29 <input type="checkbox"/> BAL-40 <input type="checkbox"/> BAL-FZ	Rad. Heat <input type="checkbox"/> BAL-LOW <input type="checkbox"/> BAL-12.5 <input checked="" type="checkbox"/> BAL-19 <input type="checkbox"/> BAL-29 <input type="checkbox"/> BAL-40 <input type="checkbox"/> BAL-FZ	Rad. Heat <input type="checkbox"/> BAL-LOW <input type="checkbox"/> BAL-12.5 <input checked="" type="checkbox"/> BAL-19 <input type="checkbox"/> BAL-29 <input type="checkbox"/> BAL-40 <input type="checkbox"/> BAL-FZ	Rad. Heat <input type="checkbox"/> BAL-LOW <input type="checkbox"/> BAL-12.5 <input checked="" type="checkbox"/> BAL-19 <input type="checkbox"/> BAL-29 <input type="checkbox"/> BAL-40 <input type="checkbox"/> BAL-FZ
Required APZ	APZ = NA IPA = NA OPA =	APZ = NA IPA = NA OPA =	APZ = 29m IPA = 29m OPA =	APZ = NA IPA = NA OPA =

S4.14 Acceptable Solutions:

Asset Protection Zones:	<input checked="" type="checkbox"/> APZ determined in accordance with Appendix 2. Comment: The predominate vegetation impacting the development is the Coastal Swamp Forest (Forest) vegetation located to the east. The lands to the north consists of Luan Court followed by developed residential dwellings for a distance greater than 140m. Lands to the east consist of a single residential dwelling followed by Lilli Pilli Drive and a walking track for approximately 40m, and is adjoined by Coast Swamp Forest (Forest) vegetation that extends greater than 140m to the east. Lands to the south consist of developed residential dwellings for a distance greater than 140m. To the west of the proposed building envelope is built up residential dwellings for approximately 98m and is followed by Forest vegetation. The surrounding terrain is flat in each direction from the proposed dwelling for a distance greater than 100m. The required APZ of 29m to the east is achieved through utilising the eastern adjacent residential dwelling and Luan's Court road reserve which exceeds the minimum APZ requirement under PBP 2019. It is a recommendation of this report that the entire property not utilised for the construction of the dwelling and associated infrastructure be maintained to the standard of an Inner Protection Area (IPA). The asset protection zones shall be maintained as outlined below in additional conditions and shall be implemented as identified above and illustrated in the attached drawing.
Siting & Design:	<input checked="" type="checkbox"/> Buildings are designed and sited in accordance with the siting and design principles in this section (refer attached drawing). Comment: The proposed new dwelling is located within a cleared area, and removal of vegetation is not required to achieve the recommended asset protection zones.
Construction Standards:	<input checked="" type="checkbox"/> Construction determined in accordance with Australian Standard AS3959 and the requirements for attached garages and other structures in this section. Comment: The proposed dwelling shall comply with a BAL – 19 construction standard in accordance with sections 3 and 6 of AS3959 (Construction of Buildings in Bushfire Prone Areas).
Access Requirements:	<input type="checkbox"/> Compliance with section 5.3.2 for property access roads. <input type="checkbox"/> Compliance with section 5.3.2 for access standards for internal roads. Comment: The access to the proposed dwelling is directly off Luan Court with an approximate driveway of 2m or less in length. The existing public roads provides suitable egress towards other Council maintain roads. The property driveway shall comply with Table 7.4a (Access) within Planning for Bushfire Protection 2019.
Water and Utility Services:	<input checked="" type="checkbox"/> Compliance with section 5.3.3 for services – water – electricity - gas. Comment: Electricity and reticulated water are both available to the property, and hydrants are located within 60m of the proposed dwelling.
Landscaping:	<input checked="" type="checkbox"/> Compliance with Appendix 4 Comment: According to the document, Planning for Bush Fire Protection, the principles of landscaping for bush fire protection are to prevent flame impingement on the dwellings, provide a defensible space for property protection, reduce fire spread, deflect and filter embers, provide shelter from radiant heat and reduce wind speed. Careful consideration of the species selection, their location relative to their flammability and on-going maintenance to readily remove flammable fuels (leaf litter, twigs and debris) is critical to providing bushfire protection (RFS, 2019).
Additional Information:	No vegetation removal is required for the proposed building envelope or the Asset Protection Zones.
Conditions Recommended:	<input checked="" type="checkbox"/> (refer attached document)
Complying Development:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Nominated BAL Level FZ,40,29,19,12.5,LOW	BAL – 19	Date:	23/02/22
Approving Officer Signature:			

ADDITIONAL CONDITIONS

The Asset Protection Zones for all aspects of the proposed new dwelling with attached secondary dwelling shall be measured from the nearest part of an external wall, or the site in absence of a detailed building design to the unmanaged vegetation (AS 3959-2018) and shall be implemented and maintained to the specifications as outlined below and within the NSW Rural Fire Service document '*Standard for Asset Protection Zones*'.

The Inner Protection Area (IPA) shall be maintained in such a manner that;

- minimal fire fuel that could be set alight by bushfire (e.g. long grass, tree branches etc.) is present at ground level;
- vegetation does not provide a path for the transfer of fire to the development;
- trees are a minimum of 5 metres away from any building, measured from the edge of the foliage to the roof line or any open balconies;
- bark chips and the like are not present within 2 metres of any building;
- any trees present have a minimum canopy separation of 2 metres; and
- any trees present are not species that retain dead material or deposit excessive amounts of ground fuel in a short time.



Figure 1: Aerial photo showing the subject property Lot 2, DPSP57243

The onsite bushfire risk assessment undertaken for the proposed new dwelling identified the Coastal Swamp Forest (Forest) vegetation to the east with a lateral separation of 40m from the proposed building envelope as the predominate bush fire vegetation.

The property is located within a mapped bush fire prone area within the Byron Shire Council online mapping website ([Byron Shire Council \(nsw.gov.au\)](https://www.byronshire.nsw.gov.au)). As shown below in figure 2, the property is located within a bush fire buffer zone.

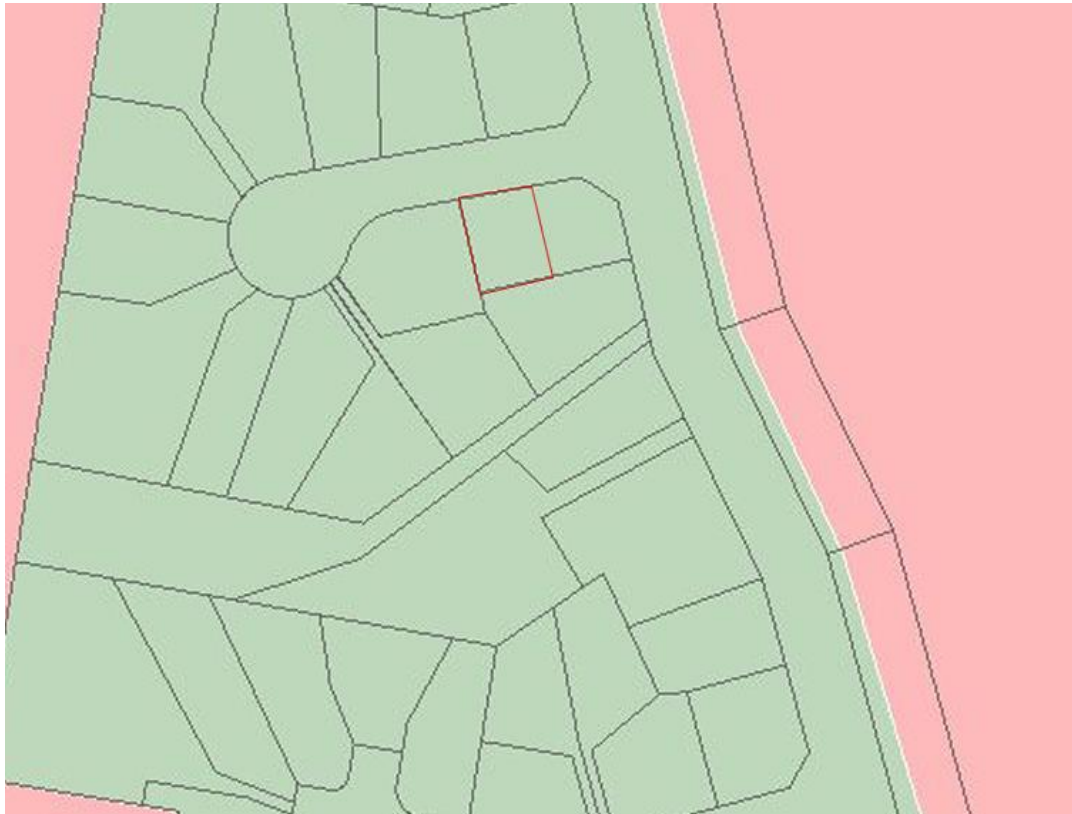


Figure 2: Byron Bay Shire Council Bushfire Prone land map showing the subject property

Access to the proposed dwelling is within 2m directly off Luan Court, a Council maintained Road.

The intent of measures is to provide sufficient space and maintain reduced fuel loads to ensure radiant heat levels of buildings are below critical limits and to prevent direct flame contact with a building. The required 29m APZ to the east is achieved through utilising the current maintained portion of the property, the adjoining residential dwelling to the east, and Lilli Pilli Drive road reserve. It is therefore a recommendation of this report that the entire portion of the property not utilised for the construction of the dwelling and associated infrastructure be maintained to the standard of an Inner Protection Area.

To allow for emergency service personnel and residents to undertake property protection activities, a defensible space that permits unobstructed pedestrian access is to be provided around the dwelling.

The proposed new dwelling shall comply with a section 3 and 6 (BAL – 19) construction standards in accordance with AS 3959-2018 (Construction of Buildings in Bushfire Prone Areas).

Landscaping to the dwelling shall comply with the requirements of Appendix 4 of 'Planning for Bushfire Protection 2019' and the Rural Fires Service 'Standards for Asset Protection Zones'.

Electricity and reticulated water are both available to the property and will be connected to the proposed dwelling as part of the development.

Hydrants are located within 60m of the proposed building envelope.

In recognition that the dwelling will be connected to a gas supply, the following requirements are to be complied with:

- a) Reticulated or bottled gas is to be installed and maintained in accordance with Australian Standard AS/NZS1596:2008: the storage and handling of LP gas and the requirement of relevant authorities. Metal piping is to be used.
- b) All fixed gas cylinders are kept clear of all flammable materials to a distance of 10 metres and be shielded on the hazard side of the installation.
- c) Gas cylinders kept close to the buildings shall have the release valves directed away from the building. Connections to and from the gas bottles are to be metal;
- d) Polymer sheathed flexible gas supply lines to gas metres adjacent to the building are not to be used.



Figure 3: View of the subject property looking south showing maintained lawns within the property.



Figure 4: View of the Coastal Swamp Forest (Forest) vegetation located approximately 40m east of the proposed dwelling.



Figure 5: View to the north showing developed residential areas for greater than 140m.



Figure 6: View to the south showing developed residential areas on a flat terrain.



Figure 7: View to the west showing residential area on a flat terrain.

General Notes

This drawing was prepared by Bushfiresafe (Aust) P/L to demonstrate the vegetation communities surrounding the property and the required asset protection zones and should not be used for any other purpose.

Note: The lot and building envelope was not surveyed at the time of the assessment and has been assumed from data collected on site and a desktop analysis.

Bushfiresafe (Aust)
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CLIENT:
YUKI & TAKAYO KORESAWA

Project
BUSH FIRE ASSESSMENT FOR NEW DWELLING AT LOT 2, 1 LUAN COURT, BYRON BAY

Date: February 2022

Scale: A3
Ref# 21015

