



Bushfire Hazard Assessment Report
The Boathouse Palm Beach
1191 Barrenjoey Rd,
Palm Beach. NSW 2108



Report prepared by First Field Environmental

3 April 2020

Revision history

Version	Date	Author	Authorised by
Final	3 April 2020	Steve Brooks	Michelle Evans

Cover image: Site Photo

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Disclaimer

Quote from Standards Australia *"It should be borne in mind that measures contained in this Standard cannot guarantee that a building will survive a bushfire event on every occasion. This is substantially due to the degree of vegetation management, the unpredictable nature of behaviour of fire, and extreme weather conditions"*.

This report has been prepared with all honesty and the opinions contained in this report are provided in good faith and all comments and opinions are not misleading.

AS 3959-2009 is designed to improve the performance of buildings in designated Bushfire Prone Areas but there is no guarantee of a structure surviving a bushfire event due to the sometimes erratic and unpredictable behaviour of bushfires.

Steve Brooks is therefore not liable to any person or company for any damage or loss incurred in a bushfire event due to a person or company taking actions in respect to advice or statements contained within this Bushfire Hazard Assessment Report.

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List of Abbreviations

APZ	Asset Protection Zone
AS3959	Australian Standard 3959-2018
BAL	Bushfire Attack Level
BCA	Building Code of Australia
EP&A Act	Environmental Planning and Assessment Act 1979
FDI	Fire Danger Index
FRNSW	Fire & Rescue NSW
IPA	Inner Protection Area
NCC	National Construction Code
OPA	Outer Protection Area
PBP	Planning for Bushfire Protection – 2019
RF Act	Rural Fires Act – 1997
RFS	NSW Rural Fire Service
SEPP	State Environmental Planning Policy
SFPP	Special Fire Protection Purpose
SWS	Static Water Supply

Executive Summary

First Field Environmental has been engaged by the proponents to prepare a Bushfire Hazard Assessment Report for inclusion in a Development Application to Northern Beaches Council for the proposed rebuild and new build of “The Boathouse Palm Beach” (Class 6 and Class 9b Building) located at 1191 Barrenjoey Rd, Palm Beach. NSW 2108 as required by Section 4.14 of the Environmental Planning and Assessment Act 1979.

The proposal is non-complying development and has been identified as being Bush Fire Prone Land and is to be considered on its merits under Section 4.14 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) and *Planning for Bushfire Protection 2019* (NSW RFS 2019). It is important to note that the building footprint, where the proposed rebuild and new build are to take place, is in fact outside the area designated as being within a Buffer Zone of Category 1 Bushfire Hazard Vegetation i.e. >100m from Classified Bushfire Hazard Vegetation.

The subject Lot is located within the Northern Beaches Council LGA and the subject Lot is zoned E2 – Environmental Conservation. The proposal is deemed to be within the classification of a Class 6 Building as described by the BCA (i.e. a shop or other building for the sale of goods by retail or the supply of services direct to the public. Example: café, restaurant, kiosk, hairdressers, showroom or service station).

Section 8.3.1 of PBP 2019 *Buildings of Class 5 to 8* under the NCC states “*the NCC does not provide for any bush fire specific performance requirements for these particular classes of buildings. As such AS 3959 and the NASH Standard are not considered as a set of Deemed to Satisfy provisions, however compliance with AS 3959 and the NASH Standard must be considered when meeting the aims and objectives of PBP. Whilst bush fire is not captured in the NCC for Class 5-8 buildings, objectives will be applied in relation to access, water supply and services, and emergency and evacuation planning*”.

“The Boathouse Palm Beach” may also be used as a function centre and can be described as a Class 9b Public Assembly building by the BCA which requires referral to the NSW RFS for any proposed development. However, as the floor plan of “The Boathouse Palm Beach” is less than 500sqm, approx. 350msqm in size (Section 8.3.11 of PBP 2019 states “*buildings used for public assembly with a floor space area of greater than 500m² are required to consider bush fire*) and as the nearest Classified Bushfire Hazard Vegetation is located >100m to the North-East of the development, referral to the NSW RFS is not required.

The nearest Classified Bushfire Hazard Vegetation – Scrub Classified Vegetation is 118m North- East from the proposed development.

The proposed rebuild and new build of “The Boathouse Palm Beach” have been found to be in the BAL – LOW range as per Table 2.4 of AS3959-2018, although not required by PBP 2019, it is merely used as a guide of the BAL determined for the development. It will also need to meet the aims and objectives of *Planning for Bush Fire Protection 2019* (NSW RFS 2019).

This report makes recommendations to approve the proposal as I believe this development proposal can comply with the requirements of AS 3959-2018 *Construction of Buildings in Bushfire Prone Areas*, the Building Code of Australia and *Planning for Bushfire Protection 2019*.

1. Introduction

First Field Environmental has been engaged by the proponents to prepare a Bushfire Hazard Assessment Report for inclusion in a Development Application to Northern Beaches Council for the proposed rebuild and new build of “The Boathouse Palm Beach” located at 1191 Barrenjoey Rd, Palm Beach. NSW 2108 (Lot 298 DP 721522) as required by Section 4.14 of the Environmental Planning and Assessment Act 1979.

The site has been identified as being Bushfire Prone Land as Northern Beaches Council LGA Bushfire Prone Land Map and therefore compliance with Bushfire Legislation is required.

The proposal is non-complying development and has been identified as being Bush Fire Prone Land and is to be considered on its merits under Section 4.14 of the Environmental Planning and Assessment Act 1979 (EP&A Act) and *Planning for Bushfire Protection 2019* (NSW RFS 2019).

1.1 Purpose of Report

The purpose of this report is for the proposal to be considered under Section 4.14 of the Environmental Planning and Assessment Act 1979 for the proposed crebuild and new build of “The Boathouse Palm Beach” located at 1191 Barrenjoey Rd, Palm Beach. NSW 2108.

1.2 Methodology of Report

The bushfire hazard assessment was conducted for the proposed development using the methodology described in Appendix 1 of *Planning for Bush Fire Protection 2019* to determine the bushfire attack level (BAL) likely upon the development:

- Determine all vegetation formations within at least 100m of the proposal.
- Determine the distance of each vegetation formation identified and the building.
- Determine the effective slope for each vegetation group.
- Determine the relevant FDI.
- Match the relevant FDI, appropriate vegetation, distance and effective slope classes to determine the category of bush fire attack applicable to the site.
- Determine the appropriate level of construction found in Table A1.12.5-7, as appropriate, of PBP 2019

1.3 Scope of Report

This Bushfire Hazard Assessment Report and its’ recommendations are limited to the subject Lot and the proposed development only and not neighbouring properties or lands. This report considers the current bushfire legislation, planning controls and standards for building in bushfire prone land areas. This report is based on site plans, a site visit and relevant information from the local council and government agencies.

2. Proposed Development

The proponents seek to undertake rebuilding and new building of an ancillary structure to “The Boathouse Palm Beach” located on the subject Lot at 1191 Barrenjoey Rd, Palm Beach. NSW 2108.

The subject Lot is surrounded by the waters of Pittwater to the Northern and Western aspects, Palm Beach Golf Course to the South and Public Recreational Open Space to the East.

The subject Lot is zoned E2 – Environmental Conservation and the proposed development is understood to comply with the requirements of the Northern Beaches Council LEP and DCP. The proposed development is required to meet the aims and objectives of PBP 2019 (NSW RFS 2019). The aims of *Planning for Bushfire Protection 2019* are to provide for the protection of human life and minimise impacts on property from the threat of bush fire, while having due regard to development potential, site characteristics and protection of the environment.

The objectives of *Planning for Bushfire Protection 2019* are to:

- Afford occupants of any building adequate protection from exposure to a bush fire.
- Provide for a defensible space to be located around buildings.
- Provide appropriate separation between a hazard and buildings which, in combination with other measures, prevent direct flame contact and material ignition.
- Ensure that safe operational access and egress for emergency service personnel and residents is available.
- Provide for ongoing management and maintenance of bush fire protection measures, including fuel loads in the asset protection zone (APZ).
- Ensure that utility services are adequate to meet the needs of fire fighters (and others assisting in bush firefighting).

3. Legislative, policy and planning requirements

3.1 Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979* Section 4.14 requires that development on bushfire prone land comply with *Planning for bushfire protection* (NSW RFS 2019).

3.2 Building Code of Australia

The Building Code of Australia (2016) determines performance requirements and deemed-to-satisfy provisions for the construction of buildings in bush fire prone areas. Buildings primarily used as a residence are identified by the Building Code of Australia (2016) as Class 1 buildings.

3.3 Planning for Bushfire Protection 2019

Development applications on bushfire prone land in NSW are to satisfy the aims and objectives of *Planning for Bushfire Protection* (NSW RFS 2019). The proposed development is consistent with “other development” as described by Section 8 of PBP 2019 and the bushfire protection measures incorporated into the proposed development meet the aims and objectives of PBP 2019.

3.4 Australian Standard 3959-2018

The BCA does not provide for any bush fire specific performance requirements and as such AS 3959 2018 does not apply as a set of ‘deemed to satisfy’ provisions for the proposed development. The general fire safety construction provisions are taken as acceptable solutions, but the aim and objectives of PBP 2019 apply in relation to other matters such as access, water and services, emergency planning and landscaping/vegetation management.

4. Bushfire Prone Land

The land has been identified on the Northern Beaches Council LGA Bush Fire Prone Land Map which covers the entire site.



Figure 1 Bushfire Prone Land Map – The above map indicates that the proposed rebuild and new build are not located within a Buffer Zone of a Hazardous Bushfire Vegetation Zone or Buffer Zone (NSW Government 2020)

Hazard

Bushfire Prone Land

- Vegetation Category 1
- Vegetation Category 2
- Vegetation Category 3
- Vegetation Buffer

5. Bushfire Hazard

5.1 Site Description

The subject Lot is also known as Lot 298 DP 721522 and is within the Northern Beaches Council LGA. The Lot has direct access to Barrenjoey Rd which runs to the East of the subject Lot.

Northern Beaches Council's LGA Bushfire Prone Land Map indicates that the subject area of the proposed rebuild and new build is located outside a Category 1 Bushfire Hazard Vegetation Zone Buffer Zone.

The nearest Classified Bushfire Hazard Vegetation – Scrub Classified Vegetation is located 118m to the North-East of the proposal. There is no other Category 1 Bushfire Hazard Vegetation located within 100m of the proposed rebuild and new build nor any Category 2 or 3 Bushfire Hazard Vegetations within 30m of the proposed development. There is vegetation located approx. 80m to the East of the proposal but is not considered to be Bushfire Hazardous Vegetation by Northern Beaches Council or the NSW Rural Fire Service and is therefore not considered to be a bushfire risk to the proposal.

The subject Lot is zoned E2 – Environmental Conservation and the proposed development is understood to comply with the requirements of the Northern Beaches Council LEP and DCP. Also located on the subject Lot is an office for Sydney by Seaplane and an office for Barrenjoey Boat hire.

The proposed rebuild and new build of “The Boathouse Palm Beach” located at 1191 Barrenjoey Rd, Palm Beach. NSW 2108 is not required to comply with the Constructions Standards outlined in AS3959-2018 *Construction of buildings in bushfire prone areas* due to the following -

Section 8.3.1 of *Planning for Bushfire Protection 2019* states, for Class 6 buildings, “*The NCC does not provide for any bush fire specific performance requirements for these particular class of buildings. As such AS 3959 and the NASH Standard are not considered as a set of Deemed to Satisfy provisions, however compliance with AS 3959 and the NASH Standard must be considered when meeting the aims and objectives of PBP. Whilst bush fire is not captured in the NCC for Class 5-8 buildings, the following objectives will be applied in relation to access, water supply and services, and emergency and evacuation planning:*

- *To provide safe access to/from the public road system for firefighters providing property protection during a bush fire and for occupant egress for evacuation.*
- *To provide suitable emergency and evacuation (and relocation) arrangements for occupants of the development.*
- *To provide adequate services of water for the protection of buildings during and after the passage of bush fire, and to locate gas and electricity so as not to contribute to the risk of fire to a building; and*
- *Provide for the storage of hazardous materials away from the hazard wherever possible.*

Furthermore, “The Boathouse Palm Beach” may at times be used as a function centre and therefore may be described as a Class 9b Public Assembly building which requires referral to the NSW RFS for any development for a Class 9b building. However, as the floor plan of the Barrenjoey Boathouse is approx. 350msq (*Section 8.3.11 of PBP 2019 states “buildings used for public assembly with a floor space area of greater than 500m² are required to consider bush fire*) and the fact that Classified Bushfire Hazard Vegetation is located >100m to the North-East, referral to the NSW RFS is not required.



Figure 2 Street Location of Property (NSW Government 2020)

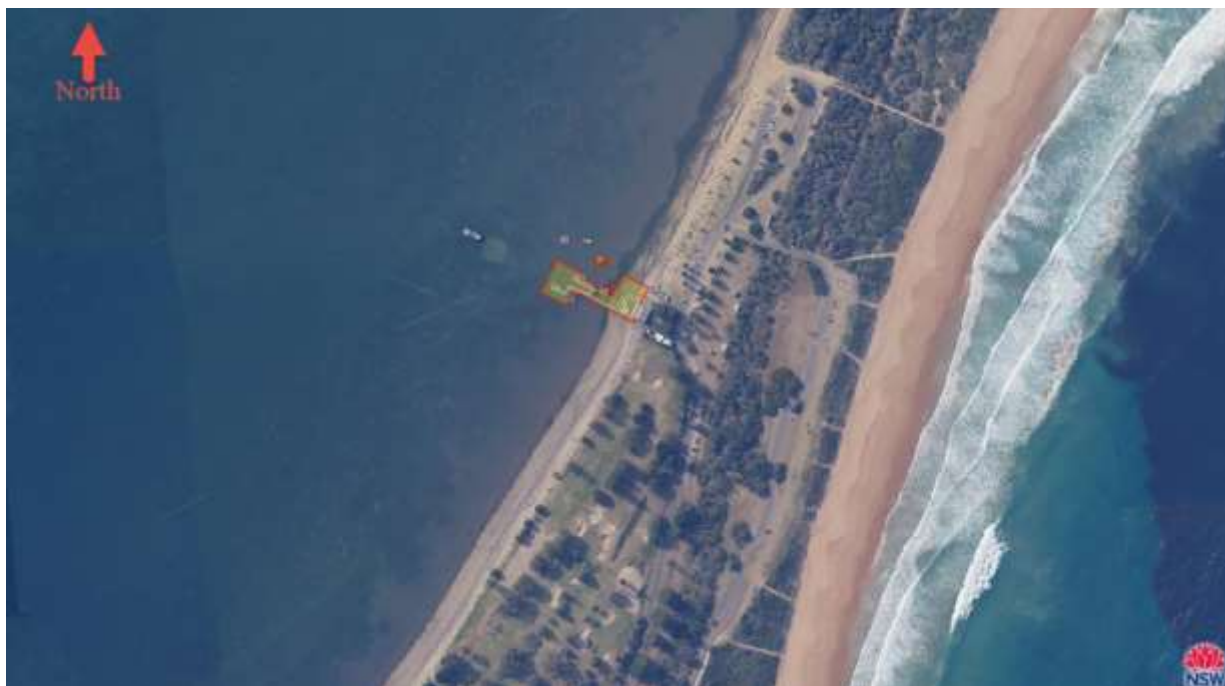


Figure 3 Site location aerial (NSW Government 2020)

5.2 Vegetation

The vegetation that is deemed the hazard and does not pose threat to the proposal is Scrub - Classified Vegetation to the North- East at 118m from the proposed development.

The Category 1 Bushfire Hazard Vegetation – Scrub Classified Vegetation is >100m North-East from the proposed development and due to the distance from the proposed development, it is not considered to be a bushfire threat to the proposed development. As stated previously, there is vegetation approx. 80m to the East of the proposal but is not considered, by Northern Beaches Council or the NSW Rural Fire Service, to be hazardous bushfire vegetation and is therefore not considered to pose a bushfire threat to the proposal.

Furthermore, there is no Category 1 Bushfire Hazard Vegetation within 100m of the proposed development in the other aspects, nor is there any Category 2 or 3 Bushfire Hazard Vegetation within 30m of the proposed development.

Aspect	Vegetation Formation	Distance to Hazard
East	Developed Maintained Land	>100m
South	Developed Maintained Land	>100m
North	Waterway (Pittwater)	>100m
West	Waterway (Pittwater)	>100m

Table 1 Distance between proposed development and Hazardous Bushfire Vegetation



Figure 4 Indicates the distance to Category 1 Bushfire Vegetation – Scrub Classified Vegetation (NSW Government 2020)

5.3 Effective Slope

The effective slope that would most significantly affect bushfire behaviour is assessed for no less than 100 metres from the proposed development. The slope is measured is under the identified hazard. As there is no Category 1 Bushfire Hazard Vegetation within 100m or Category 2 or 3 Classified Bushfire Hazard Vegetation within 30m of the proposal, the need to assess the slope is not required.

North	South	West	East
<input checked="" type="checkbox"/> N/A >100m	<input checked="" type="checkbox"/> N/A >100m	<input checked="" type="checkbox"/> N/A >100m	<input checked="" type="checkbox"/> N/A >100m
<input type="checkbox"/> Upslope Flat	<input type="checkbox"/> Upslope Flat	<input type="checkbox"/> Upslope Flat	<input type="checkbox"/> Upslope Flat
<input type="checkbox"/> 0-5	<input type="checkbox"/> 0-5	<input type="checkbox"/> 0-5	<input type="checkbox"/> 0-5
<input type="checkbox"/> 5-10	<input type="checkbox"/> 5-10	<input type="checkbox"/> 5-10	<input type="checkbox"/> 5-10
<input type="checkbox"/> 10-15	<input type="checkbox"/> 10-15	<input type="checkbox"/> 10-15	<input type="checkbox"/> 10-15
<input type="checkbox"/> > 15-20	<input type="checkbox"/> > 15-20	<input type="checkbox"/> > 15-20	<input type="checkbox"/> > 15-20

Table 2 Degree slope under the Classified Bushfire Hazard Vegetation

5.4 Asset Protection Zones

The APZs of the proposed rebuild and new build of “The Boathouse Palm Beach” are >100m to the North, >100m to the South, >100m to the East and >100m to the West from the proposed development.

Direction/Aspect	Effective slope	APZ	Vegetation Classification	Distance required by PBP 2006	Compliance
North	N/A	100+m	Waterway	N/A	Yes
South	N/A	100+m	Developed Land	N/A	Yes
East	N/A	100+m	Developed Land	N/A	Yes
West	N/A	100+m	Waterway	N/A	Yes

Table 3 Summary of Asset Protection Zones

The proposed distances between the building footprint, where the proposed rebuild and new build are to take place, and hazardous vegetation meet or exceed Asset Protection Zone distances required by PBP and are contained within the property, maintained/developed land to the South and East and waterways to the North and West.

Asset Protection Zones will be managed in accordance with the requirements of Standards for Asset Protection Zones (NSW RFS 2005). The maintenance of Asset Protection Zones aims to prevent the spread of fire within and across property boundaries. Landscaping will be managed adjacent to the existing structure to maintain a defensible space for property protection and to prevent flame contact with the existing structure.



Figure 5 APZ distances from the building footprint where the rebuild and new build are to take place and Bushfire Hazard Vegetation (NSW Government 2020)

5.5 Site Constraints

Significant Environmental Features

The subject Lot has no significant environmental features upon it, although abutting the development site is vegetation that is designated as Terrestrial Biodiversity Vegetation by the NSW Government. The Terrestrial Biodiversity Vegetation, I believe, will not be negatively affected by the proposed rebuild and new build of the “The Boathouse Palm Beach” (see Figure 6 below)

Threatened Species, Populations, Endangered Ecological Communities and Critical Habitat

The subject Lot has no threatened species or populations, endangered ecological communities or critical habitat upon it.

Aboriginal Heritage

The Lot has not been identified, by the Office of the Environment and Heritage, as to having any items of Aboriginal Heritage located on it which would affect the proposal gaining approval. The land immediately to the East of the site has been identified as being Heritage Conservation by the NSW Government but the proposed development will not negatively affect this area.



Figure 6 Indicates that the proposal is not within an area designated as being within Terrestrial Biodiversity Vegetation (NSW Government 2020)

6. Hazard Assessment Determination

6.1 Compliance with Australian Standard 3959-2018

The BCA does not provide for any bush fire specific performance requirements and as such AS 3959 does not apply as a set of ‘deemed to satisfy’ provisions. The general fire safety construction provisions are taken as acceptable solutions, but the aim and objectives of PBP apply in relation to other matters such as access, water and services, emergency planning and landscaping/vegetation management. The table below is merely an indication of the BAL Rating for the proposal.

The determination of Bushfire Attack Level (BAL) for the development has been made in accordance with the simplified procedure (or method 1) as described in Appendix 1 of PBP 2019.

The FDI for Northern Beaches Council LGA is 100.

Aspect	Distance to Vegetation	Vegetation Classification	Slope in degrees	Construction Requirements AS3959-2018
North	100+m	Waterway	N/A	BAL- LOW
South	100+m	Maintained/Developed Land	N/A	BAL- LOW
East	100+m	Maintained/Developed Land	N/A	BAL- LOW
West	100+m	Waterway	N/A	BAL- LOW

Table 4 Calculation of Bushfire Attack Level - BAL

The proposed development has been found to be in the BAL-LOW range of which AS3959-2018 Section 4 does not provide construction requirements and is based on there being insufficient risk to warrant specific bushfire construction requirements. Furthermore, Section 8.3.1 of *Planning for Bushfire Protection* 2019 states, for these classes of buildings, “The BCA does not provide for any bush fire specific performance requirements and as such AS 3959 does not apply as a set of ‘deemed to satisfy’ provisions.

6.2 Meeting the Aims and Objectives Planning for Bushfire Protection 2019

The following indicates that the proposed development complies/not complies with the Aims and Objectives of PBP 2019.

Aims and Objectives	Details
<p>The <i>aim</i> of PBP is to use the NSW development assessment system to provide for the protection of human life (including fire fighters) and to minimise impacts on property from the threat of bush fire, while having due regard to development potential, on-site amenity and protection of the environment".</p>	<p>The subject Lot is designated as being bushfire prone land and it is my opinion that this proposal can comply with the aims of PBP of minimising the impacts of a bushfire on the property.</p> <p>Complies</p>
<p>Afford occupants of any building adequate protection from exposure to a bushfire.</p>	<p>The proposed development is non-habitable and is >100m from any Category 1 Bushfire Hazard Vegetation and >30m from any Category 2 or 3 Bushfire Hazard Vegetation. This affords visitors/patrons adequate protection from the effects of bushfire exposure.</p> <p>Complies</p>
<p>Provide for a defensible space to be located around buildings.</p>	<p>There is enough defensible space around the existing structure containing "The Boathouse Palm Beach" to undertake fire suppression operations and not expose patrons to radiant heat exposure nor other effects of bushfire behaviour.</p> <p>Complies</p>
<p>Provide appropriate separation between a hazard and buildings which, in combination with other measures, prevent direct flame contact and material ignition.</p>	<p>There is >100m from Category 1 Bushfire Hazard to the North-East and it is not envisaged that the existing structure and the proposed rebuild and new build will not experience direct flame contact nor material ignition from a bushfire.</p> <p>Complies</p>
<p>Ensure that safe operational access and egress for emergency service personnel and residents is available.</p>	<p>Barrenjoey Rd is a sealed two-wheeled drive, all-weather road and suitable for fire appliances. The sealed all-weather road allows occupants to evacuate the site whilst allowing oncoming emergency vehicles to pass safely.</p> <p>Barrenjoey Rd is approx. 6m wide and has a clearance of at least 4m.</p> <p>Should a bushfire occur in the area, the occupants are provided with a satisfactory egress route if they were required to evacuate the area</p> <p>Complies</p>

Aims and Objectives	Details
Provide for ongoing management and maintenance of bush fire protection measures, including fuel loads in the asset protection zone (APZ).	The entire subject Lot will be maintained as an Inner Protection Area (IPA) and the Asset Protection Zones will be managed in accordance with the requirements of Standards for Asset Protection Zones (NSW RFS 2005) and Appendix 4 of PBP 2019.
Ensure that utility services are adequate to meet the needs of firefighters (and others assisting in bush firefighting).	<p>The site is connected to reticulated mains pressure water supply. The nearest reticulated mains pressure fire hydrants are located along Beach Rd approx. 575m South of the proposed development.</p> <p>Although this may seem an issue, I believe that it is not as there is a Static Water Supply (Pittwater) which is able to provide water supply for firefighting operations whether by fire appliances draughting water from the waterway or via pumping from the waterway with portable pump operations.</p> <p>Complies</p> <p>Electricity supply to the proposal is via existing aboveground supply.</p> <p>Complies</p> <p>Gas services are to be located and maintained in accordance with Australian Standard 1596: The Storage and Handling of LP Gas and the criteria of Planning for Bushfire Protection (NSW RFS 2006).</p> <p>Complies</p>
Ensure that Emergency Plans are in place in order to protect the occupants from an emergency.	The owner/occupiers of “The Boathouse Palm Beach” must have an Emergency Plan in place as required by AS3745-2010 <i>Planning for Emergencies in Facilities</i> . <p>Complies</p>

Table 5 Aims and Objectives of PBP 2019

7. Recommendations

This Bushfire Hazard Assessment Report has addressed all matters required by *Planning for Bushfire Protection* 2019 for the proposed development as per Section 4.14 of the EP & A Act 1979. The recommendations provided below are provided to Northern Beaches Council and the NSW Rural Fire Service.

The entire subject Lot will be maintained as an Inner Protection Area (IPA) and the Asset Protection Zones will be managed in accordance with the requirements of Standards for Asset Protection Zones (NSW RFS 2005) and Appendix 4 of PBP 2019.

An Emergency Evacuation Plan be developed (if not already in place) complying with the intent measures outlined in AS3745-2010 *Planning for Emergencies in Facilities*.

8. Conclusion

The proposed rebuild and new build of “The Boathouse Palm Beach” located at 1191 Barrenjoey Rd, Palm Beach. NSW 2108 can meet the aims and objectives of *Planning for Bush Fire Protection 2019* (NSW RFS 2019), the *Building Code of Australia* and NCC in relation to construction standards.

The subject Lot is located within the Northern Beaches Council LGA and the subject Lot is zoned E2 – Environmental Conservation. The proposal is deemed to be within the classification of a Class 6 Building as described by the BCA (i.e. a shop or other building for the sale of goods by retail or the supply of services direct to the public. Example: café, restaurant, kiosk, hairdressers, showroom or service station).

Section 8.3.1 of PBP 2019 *Buildings of Class 5 to 8* under the NCC states “*the NCC does not provide for any bush fire specific performance requirements for these particular classes of buildings. As such AS 3959 and the NASH Standard are not considered as a set of Deemed to Satisfy provisions, however compliance with AS 3959 and the NASH Standard must be considered when meeting the aims and objectives of PBP. Whilst bush fire is not captured in the NCC for Class 5-8 buildings, the following objectives will be applied in relation to access, water supply and services, and emergency and evacuation planning*”.

“The Boathouse Palm Beach” may also be used as a function centre and can be described as a Class 9b Public Assembly building by the BCA which requires referral to the NSW RFS for any proposed development. However, as the floor plan of “The Boathouse Palm Beach” is approx. 350msqm (*Section 8.3.11 of PBP 2019 states “buildings used for public assembly with a floor space area of greater than 500m² are required to consider bush fire*) and the Classified Bushfire Hazard Vegetation is located >100m to the North-East of the proposed development, referral to the NSW RFS is not required.

Furthermore, the proposed development has been found to be in the BAL-LOW range of which AS3959-2018 Section 4 does not provide construction requirements and is based on there being insufficient risk to warrant specific bushfire construction requirements due to the proposal being >100m from Category 1 Bushfire Hazard Vegetation and >30m from Category 2 & 3 Bushfire Hazard Vegetation.

The proposed development and existing Asset Protection Zones comply with the specific objectives and requirements of Appendix 4 of *Planning for Bushfire Protection 2019* (NSW RFS 2019).

In combination with this report, the site-specific assessment and recommendations provided, this proposal has a satisfactory level of bushfire protection to the property and occupants whilst meeting the requirements of both the NSW Rural Fire Service and Northern Beaches Council in terms of Bushfire Legislation and Safety.

References

Australian Building Codes Board (ABCB), 2016, *Building Code of Australia*, Volume 2, Canberra.

Keith David, 2004, *Ocean Shores to Desert Dunes: the native vegetation of NSW and the ACT*, Dept of Environment and Conservation, NSW Government.

Environmental Planning and Assessment Act 1979. NSW Government

NSW Rural Fire Service, 2019, *Planning for Bush Fire Protection*. Sydney

NSW Rural Fire Service, 2020, website – www.rfs.nsw.gov.au :

Standards Australia, AS 3959-2018 *Construction in Bushfire Prone Areas* (amended 2001) SAI Global, Melbourne.

NSW Government *E-Planning Spatial Viewer* 2020

NSW Government *Six Mapping* 2020

Office of Environment and Heritage Aboriginal Heritage Information Management Systems 2020

Bushfire Risk Assessment Certificate

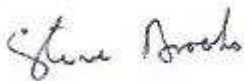
This form is to be completed by a recognised consultant in Bushfire Risk Assessment in accordance with Section 4.14 of the Environmental Planning and Assessment Act 1979

Property Address	1191 Barrenjoey Rd, Palm Beach. NSW 2108
Description of the Proposal	Proposed rebuild and new build of "The Boathouse Palm Beach" located at 1191 Barrenjoey Rd, Palm Beach. NSW 2108
Plan Reference	4 th March 2020 - 1
BAL Rating	BAL-LOW
Does Proposal rely on Alternate Solutions	No
Is Referral to NSW RFS Required	No

I, Steve Brooks have carried out a Bushfire Risk Assessment on the above-mentioned property and the proposed development. A detailed Bushfire Assessment Report is attached which includes the requirements set out in Appendix 2 of Planning for Bushfire Protection 2019.

I hereby certify that in accordance with Section 4.14 of the Environmental Planning and Assessment Act 1979, I am a person recognised by the NSW Rural Fire Service as a qualified consultant in bushfire risk management. The bushfire risk assessment report for the development conforms to the relevant specifications and requirements of Planning for Bush Fire Protection 2019 (NSWRFS).

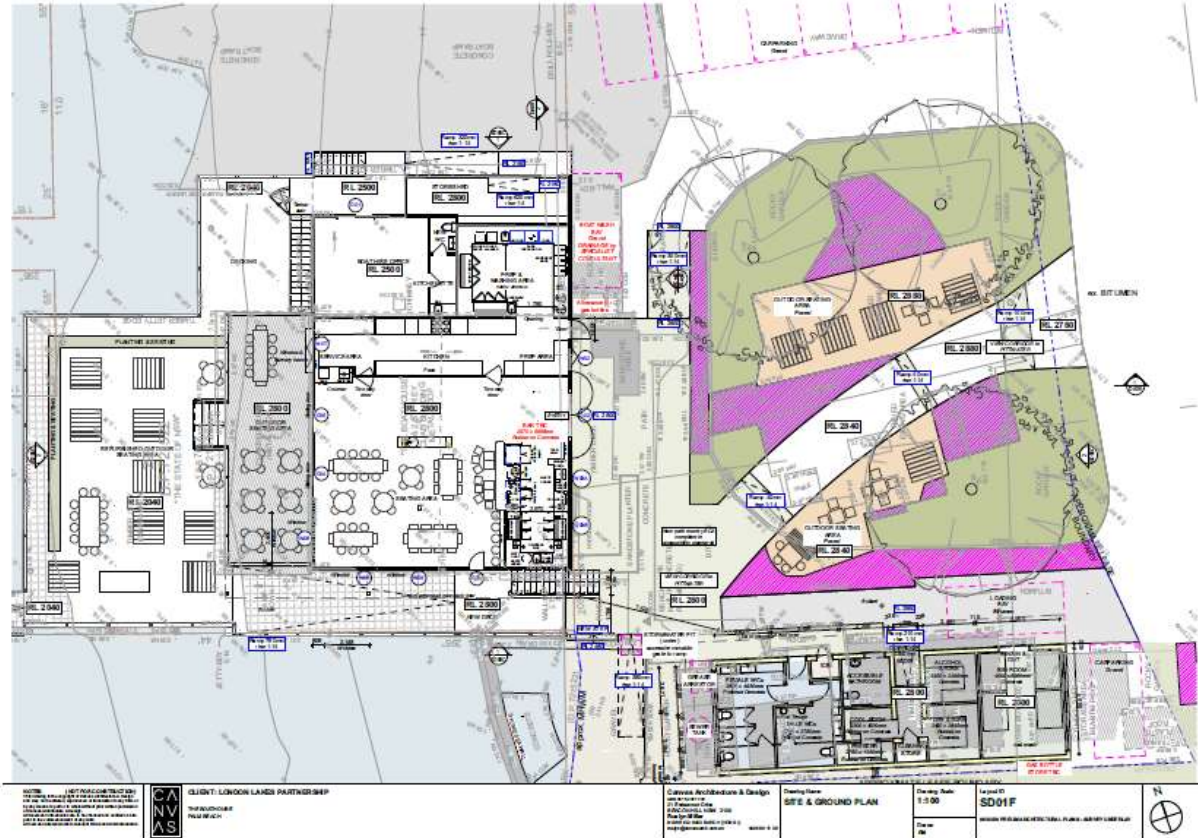
I acknowledge that the Bushfire Assessment Report prepared for the above-mentioned property will be submitted and relied upon by Council in support of the proposed Development Application as the basis for ensuring that the bush fire requirement aspects of the proposed development have been met in accordance with Planning for Bush Fire Protection 2019 (NSWRFS).



BPAD - Certification No. 40765
 Graduate Diploma Bushfire Planning and Design (UWS)
 Graduate Certificate in Fire Investigation (CSU)



Appendix A Site Plans



Appendix B Site Photos



Photo 1 – Indicates the access/egress looking South from the proposed development (Steve Brooks 2020)



Photo 2 – Indicates managed land (Palm Beach Golf Course) and Barrenjoey Beach to the South of the proposed development (Steve Brooks 2020)



Photo 3 – Indicates Pittwater to the West of the proposed development (Steve Brooks 2020)



Photo 4 – Indicates Barrenjoey Beach and managed land to the North of the development (Steve Brooks 2020)



Photo 5 – Indicates Scrub Classified Vegetation approx. 80m East of the development which is not regarded as Hazardous Bushfire Vegetation by Northern Beaches Council or the NSW RFS (Steve Brooks 2020)



Photo 6 – Indicates the Category 1 Bushfire Hazard Vegetation – Scrub located 118m North-East of the proposed development which does not pose a bushfire threat to the proposal (Steve Brooks 2020)



Photo 7 – Indicates the storage facility for LPG which complies with AS1596 (Steve Brooks 2020)



Photo 8 – Indicates a First-Aid Fire Hose Reel located outside Barrenjoey Boat Hire on the Northern façade of the existing structure (Steve Brooks 2020)