

Bushfire Assessment Report

Proposed:
Home Distillery

At:
**Lot 36 McLean Street,
Ingleside NSW**

Reference Number: 210034

Prepared For:
Julian Noble

16th September 2020

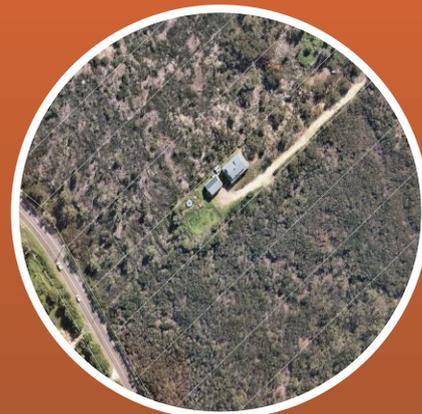


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Version Control				
Version	Date	Prepared by	Reviewed by	Details
1	16/09/2020	Ian Tyerman	Stuart McMonnies BPAD Accreditation No. 9400	Final Report

List of Abbreviations:

APZ	Asset Protection Zone
AS3959	Australian Standard 3959 – 2018 as amended
BAL	Bushfire Attack Level
BCA	Building Code of Australia
BPMs	Bushfire Protection Measures
BPLM	Bushfire Prone Land Map
Council	Northern Beaches Council
DA	Development Application
ELVIS	Elevation and Depth Foundation Spatial Data – Geoscience Australia
EP&A Act	<i>Environmental Planning and Assessment Act - 1979</i>
ESD	Ecologically Sustainable Development
FRNSW	Fire and Rescue NSW
IPA	Inner Protection Area
NCC	National Construction Code
NP	National Park
NSP	Neighbourhood Safer Places
OPA	Outer Protection Area
PBP	<i>Planning for Bush Fire Protection – 2019</i>
ROW	Right of Way
RF Act	<i>Rural Fires Act - 1997</i>
RFS	NSW Rural Fire Service
SEPP	State Environmental Planning Policy
SFPP	Special Fire Protection Purpose
SWS	Static Water Supply

1.0 Introduction

Building Code and Bushfire Hazard Solutions has been engaged by Julien Noble to provide an independent Bushfire Assessment Report for the proposed Home Distillery at 271 Powderworks Road, Ingleside (Lot 36 DP 11594), herein referred to as the subject site.

The development proposal seeks approval for the use of an existing detached garage (Class 10a structure) as a home distillery (Class 5-8 Structure).

The subject site is an existing allotment zoned 'RU2: Rural Landscape' and located within Northern Beaches Council's local government area.

The site has street frontage to Powderworks Road to the southwest and McLean Street to the northeast and abuts vacant allotments (zoned RU2: Rural Landscape) to the northwest and southeast.

Northern Beaches Council's Bushfire Prone Land Map identifies the subject property as containing Category 1 Vegetation and its associated buffer zone and therefore Planning for Bush Fire Protection (PBP) must be considered.

The application is captured under section 4.14 application under the *Environmental Planning and Assessment Act 1979*.

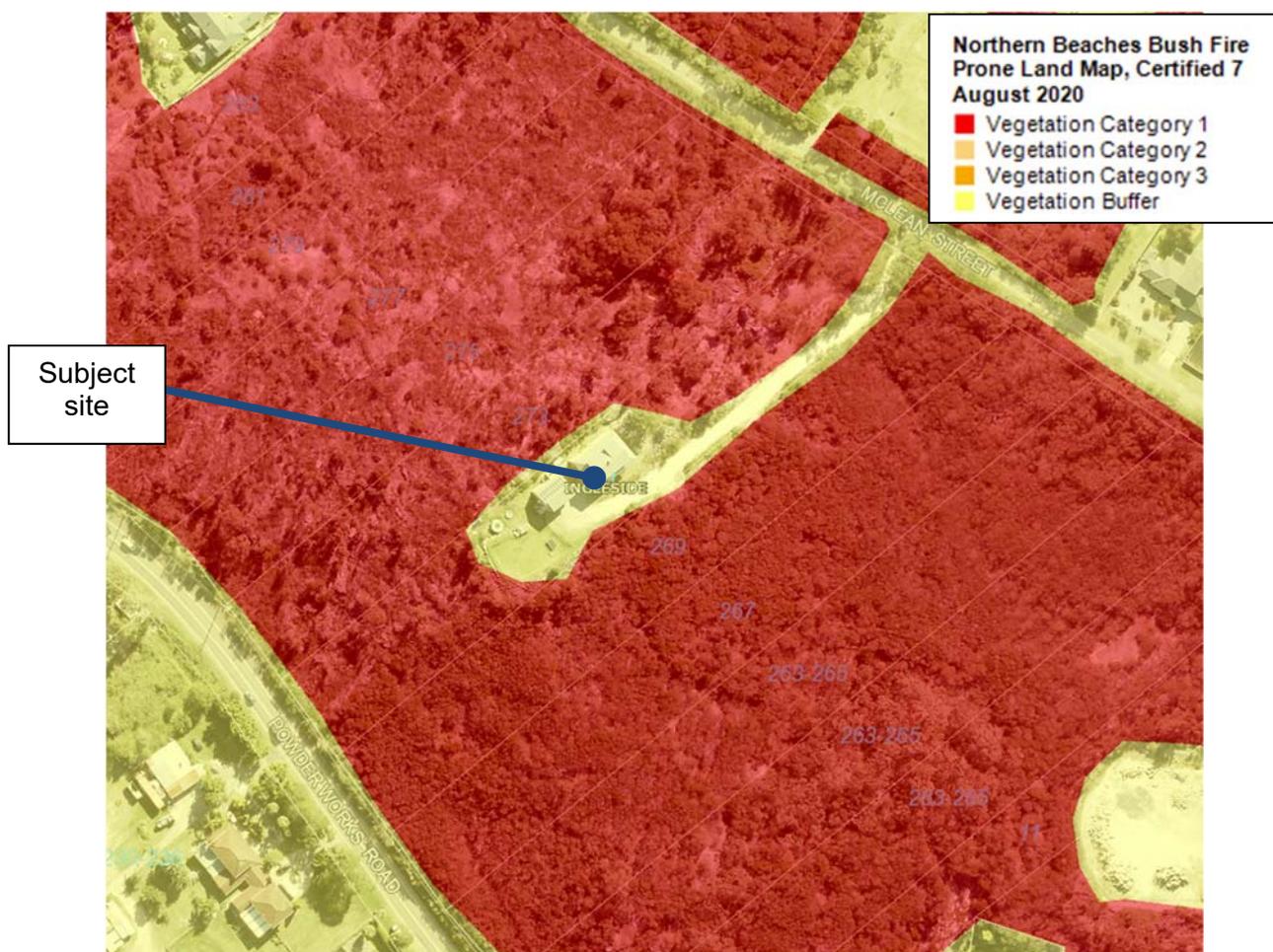


Figure 01: Extract from Northern Beaches Council's Bushfire Prone Land Map

2.0 Purpose of Report

The purpose of this Bushfire Assessment Report is to provide Julien Noble and Council with an independent bushfire assessment together with appropriate recommendations for bushfire mitigation measures considered necessary having regard to development within a designated 'bushfire prone' area.

The recommendations contained within this report may assist in forming the basis of any specific construction conditions and/or bushfire mitigation measures that Council and/or the NSW Rural Fire Service may elect to place within any consent conditions issued for the subject Development Application.

3.0 Scope of this Report

The scope of this report is limited to providing a bushfire hazard assessment and recommendations for the subject property. Where reference has been made to the surrounding lands, this report does not purport to directly assess those lands; rather it may discuss bushfire impact and/or progression through those lands and possible bushfire impact to the subject property.

4.0 Compliance Tables & Notes

The following table sets out the projects compliance with *Planning for Bush Fire Protection – 2019*.

	Northwest	Southeast	Southwest	Northeast
Vegetation Structure	Short Heath	Tall Heath	Short Heath	Short Heath
Slope	0° across slope	0-5° downslope	0-5° downslope	0-5° downslope
<u>Residential</u> Asset Protection Zone*	9 metres	18 metres	10 metres	16 metres
Existing Asset Protection Zone	>4 metres	>19 metres	>21 metres	31 metres
Significant Landscape Features	Vacant allotments	Vacant allotments	Unmanaged Vegetation	Unmanaged Vegetation
Bushfire Attack Level	BAL Flame Zone	BAL 29	BAL 12.5	BAL 12.5

* In accordance with section 8.3.10 of PBP 19 the measures, including Asset Protection Zones, for Infill Residential Development (Chapter 7) should be used as a base for the development of a package of measures for Commercial development.

Asset Protection Zones

One of the objectives underpinning Planning for Bush Fire Protection is to provide appropriate separation between a hazard and buildings which, in combination with other measures, prevent the likely fire spread to buildings.

While there are no minimum required Asset Protection Zones for this type of development it is acknowledged that for commercial and industrial development PBP requires that the provisions within Chapter 7, inclusive of APZs, are to be used as the base for the package of measures.

Chapter 7 requires that APZs are provided in accordance with A1.12.2, which details the minimum APZs to achieve 29kW/m² (BAL 29).

Although in this instance the proposed development cannot achieve the minimum required Asset Protection Zones for Infill Residential Development (Chapter 7) the subject building is a class 10a structure located ≥6 metres from a habitable structure and therefore under s8.3.2 of PBP – 2019, has no bushfire construction requirements.

The size and shape of the existing allotment precludes the provision of increased APZs to the northwest within the site. The existing APZs within the site will continue to be maintained in accordance with an Asset Protection Zone / Inner Protection Area as detailed in Appendix 4 of Planning for Bush Fire Protection 2019 and the NSW Rural Fire Service publication 'Standards for Asset Protection Zones'.

Construction Level

The highest Bushfire Attack Level to the existing building (Proposed distillery) was determined to be 'BAL Flame Zone'.

The National Construction Code does not provide for any bush fire specific performance requirements for Class 5 to 8 structures and as such Australian Standard 3959 'Construction of buildings in bushfire-prone areas' 2018 does not apply as a set of 'deemed to satisfy' provisions.

Section 8.3.1 of PBP 2019 states:

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 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.*

The general fire safety construction provisions (of the NCC) are taken as acceptable solutions however construction requirements for bush fire protection will need to be considered on a case-by-case basis.

We are satisfied that in combination with the recommendations contained within this assessment that the proposal will satisfy the above objectives.

In consideration of the above measures we have recommended a package to mitigate smoke and ember attack. This includes screening operable windows, screening or enclosing all gaps >3mm in size, installing draught excluders on external side-hung doors, fitting external roller doors with relevant seals and added protection on any ducted air ventilation systems. Provision of a 10,000 litre Static Water Supply, pump and hose.

Compliance Summary of Bushfire Protection Measures Assessed			
Bushfire Protection Measure (Chapter 7)	Acceptable Solution	Performance Solution	Report Section
Asset Protection Zones	<input type="checkbox"/>	<input checked="" type="checkbox"/>	7.02
Building construction, siting & design	<input type="checkbox"/>	<input checked="" type="checkbox"/>	7.03
Access	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7.04
Water Supply & Utilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7.05
Emergency management arrangements	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7.06
Landscaping	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7.07

5.0 Aerial view of the subject allotment



Figure 02: Aerial view of the subject area courtesy Nearmap

6.0 Site Assessment

6.01 Location

The subject site is an existing allotment located at 271 Powderworks Road, Ingleside (Lot 36 DP 11594).

The subject site is an existing allotment zoned 'RU2: Rural Landscape' and is located within Northern Beaches Councils local government area.

The site has street frontage to Powderworks Road to the southwest and McLean Street to the northeast and abuts vacant allotments (zoned RU2: Rural Landscape) to the northwest and southeast.

The vegetation identified as being the potential bushfire hazard is located within the subject site, and neighbouring allotments to all aspects.



Photograph 01: View of the existing garage and dwelling within the subject property

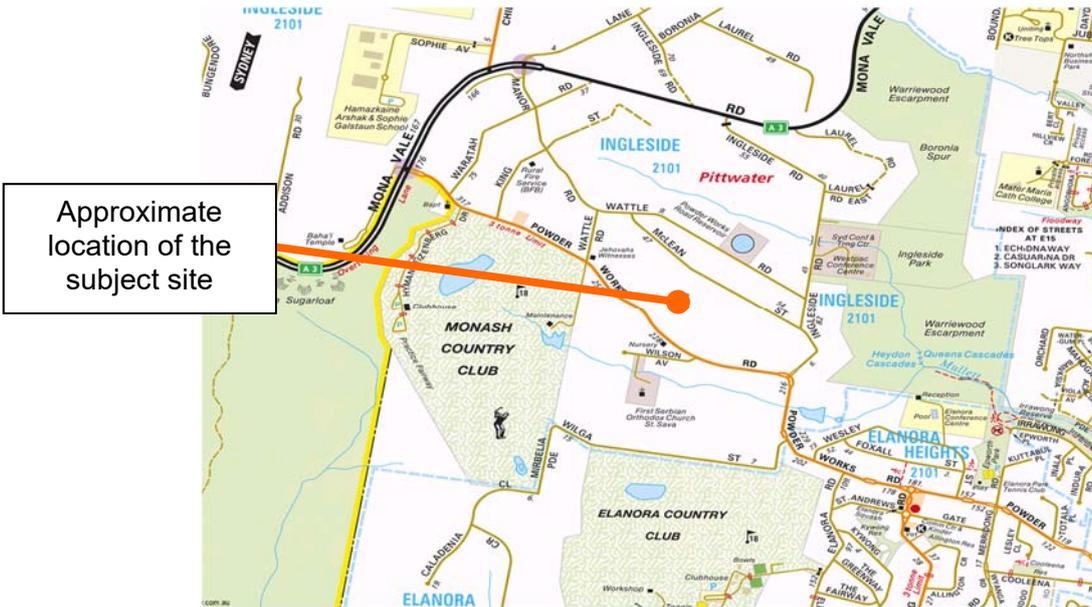


Figure 03: Extract from street-directory.com.au

6.02 Vegetation

The subject site is identified as containing designated Category 1 Vegetation and its associated 100 metre buffer zone on Northern Beaches Council's Bush Fire Prone Lands Map.

The vegetation identified as being the potential bushfire hazard to the subject building is located within the south-western and north-eastern portion of the subject site and within neighbouring allotments to the northwest and southeast.

It is acknowledged that the eastern portion of the subject site comprises of hardstand and semi-cleared areas. This area was subsequently not assessed as a bushfire hazard.

Vegetation Mapping of the subject site and surrounding vegetation (SydneyMetroArea_v3_1_2016_E_4489), identifies the vegetation to the northwest, southwest and southeast to be Coastal Sandstone Rock Plate Heath and the vegetation to the northeast to be Coastal Sandstone Heath Mallee. These formations translate to Short Heath and Tall Heath respectively, (sensu Keith 2004).

This assessment is consistent with our site observations.



Figure 04: Vegetation mapping supplied from SydneyMetroArea_v3_1_2016_E_4489

For the purpose of assessment under PBP – 2019 the vegetation to the southwest, northwest and southeast has been determined to be Short Heath and the vegetation posing a hazard to the northeast has been determined to be Tall Heath.



Subject site

Short Heath

Photograph 02: View northwest from within the vegetation towards the subject site



Short Heath

Photograph 03: View southwest of the vegetation to the southwest



Photograph 04: View northeast of the vegetation to the northeast

6.03 Slope and Topography

The slope that would most significantly affect bushfire behaviour must be assessed for at least 100 metres from within the bushfire hazard.

The slope that would affect the most significant bushfire impact from the east and south (southeast) is expected to be a fire travelling up slope toward the proposed building. The slope that would **most significantly** influence bushfire impact was determined onsite and verified from 1 metre topographic imagery.

- 0 - 5 degrees downslope to the northeast, southwest and southeast
- 0 degrees across slope to the northwest

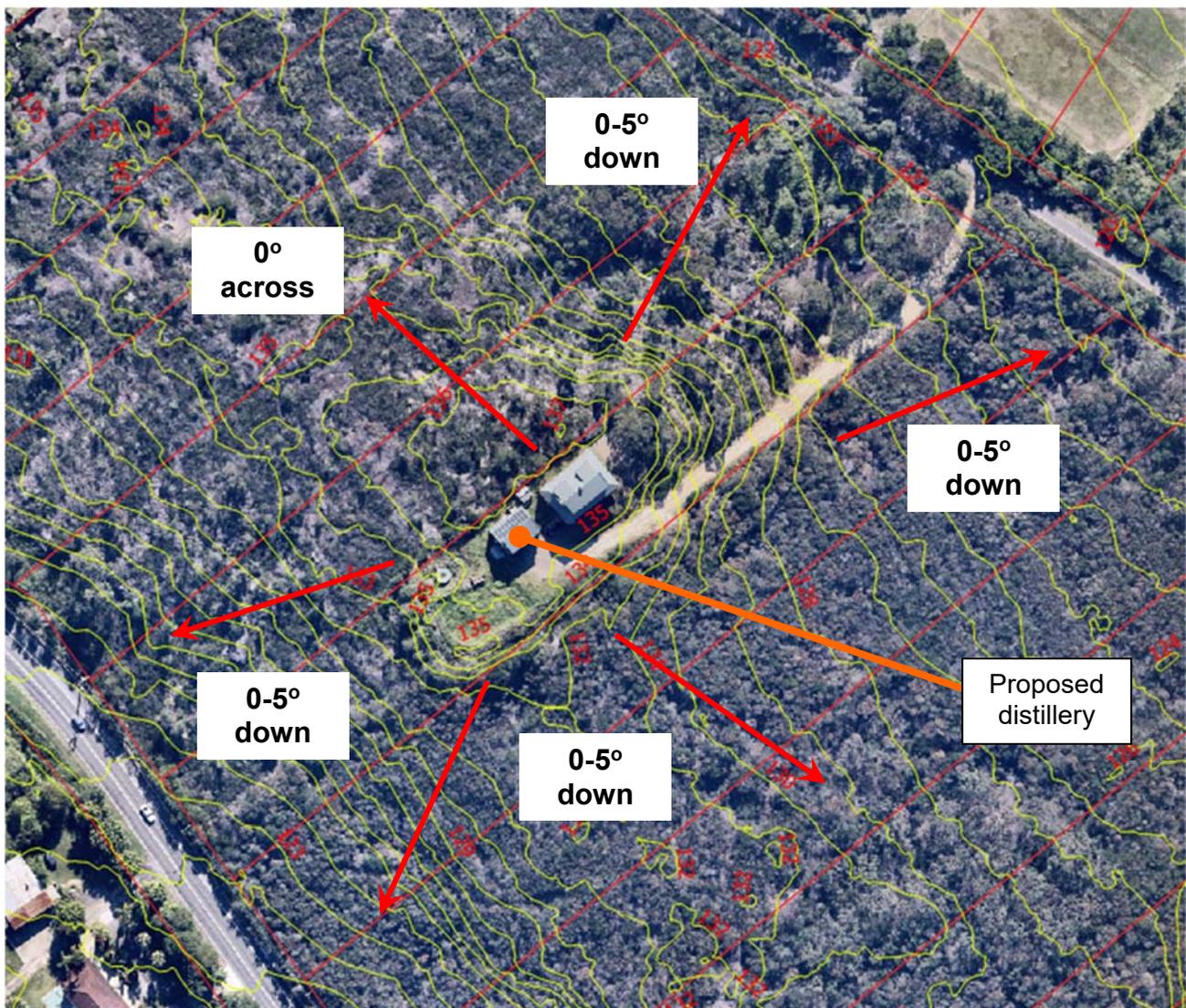


Figure 05: Extract from ELVIS – Geoscience Australia (1m Contours)

7.0 Bushfire Protection Measures

7.01 Planning for Bush Fire Protection - 2019

Planning for Bush Fire Protection – 2019 (PBP) is applicable to development located on land determined as being 'bushfire prone' in accordance with the local Bushfire Prone Land Map.

Bushfire prone land are defined as those areas;

- containing or within 100m of Category 1 Vegetation; or
- containing or within 30m of Category 2 Vegetation.

Northern Beaches Council's Bushfire Prone Land Map identifies the subject property as containing Category 1 Vegetation and its associated 100 metre buffer zone and therefore the application of PBP must apply in this instance.

The application of Planning for Bush Fire Protection requires satisfactory demonstration of the following bushfire protection measures (BPMs):

- Asset Protection Zones
- Building construction, siting & design
- Access arrangements
- Water supply & utilities
- Emergency management arrangements
- Landscaping

As the proposal relates to commercial development the proposal must comply with Section 8.3.1 and the aim and objectives of PBP 2019.

In respect to the subject building being a class 10a structure located ≥ 6 metres from a habitable building, under s 8.3.2 of PBP – 2019, the existing building has no bushfire construction requirements.

7.02 Asset Protection Zones

One of the objectives underpinning Planning for Bush Fire Protection is to provide appropriate separation between a hazard and buildings which, in combination with other measures, prevent the likely fire spread to buildings.

While there are no minimum required Asset Protection Zones for this type of development it is acknowledged that for commercial and industrial development PBP requires that the provisions within Chapter 7, inclusive of APZs are to be used as the base for the package of measures.

In this instance owing to the existing allotment configuration, the proposed development cannot achieve the minimum required Asset Protection Zones for Infill Residential Development (Chapter 7) to the northwest, therefore additional bushfire protection measures will be recommended as part of this report.

There is adequate defensible space for firefighting operations around the building.

Access to the rear of the site is via the existing access drive which provides adequate turning provisions and a logical fire-fighting platform for attending fire services.

All grounds within the subject site not built upon from the subject building to the northwest and southeast property boundaries and for a minimum distance of 21 metres to the southwest and 31 metres to the northeast will continue to be maintained in accordance with an Inner Protection Area as detailed in Appendix 4 of Planning for Bush Fire Protection 2019 and the NSW Rural Fire Service publication 'Standards for Asset Protection Zones'.

NOTE: the aforementioned APZs are existing and no tree removal or increased vegetation management is required.

7.03 Building construction, siting & design

Australian Standard 3959 – 2018 'Construction of buildings in bushfire-prone areas' (AS3959) specifies construction standards for buildings within various Bushfire Attack Levels as determined by Planning for Bush Fire Protection – 2019.

AS3959 provides for six (6) levels of building construction these being BAL - Low, BAL - 12.5, BAL - 19, BAL - 29, BAL - 40 and BAL - FZ.

Bushfire Attack Level	Maximum radiant heat impact (kW/m ²)	Level of construction under AS3959
Low		No special construction requirements
12.5	≤12.5	BAL - 12.5
19	12.6 to 19.0	BAL - 19
29	19.1 to 29.0	BAL - 29
40	29.1 to 40.0	BAL - 40
Flame Zone	>40.0	BAL FZ No deemed to satisfy provisions

Table 01: Correlation between bushfire impact and AS3959

The highest Bushfire Attack Level to the subject building (proposed distillery) at 271 Powderworks Road, Ingleside was determined to be 'BAL Flame Zone'.

The National Construction Code does not provide for any bush fire specific performance requirements for Class 5 to 8 structures and as such Australian Standard 3959 'Construction of buildings in bushfire-prone areas' 2018 does not apply as a set of 'deemed to satisfy' provisions.

Section 8.3.1 of PBP 2019 states:

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 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.*

The general fire safety construction provisions (of the NCC) are taken as acceptable solutions however construction requirements for bush fire protection will need to be considered on a case-by-case basis.

We are satisfied that in combination with the recommendations contained within this assessment that the proposal will satisfy the above objectives.

In consideration of the above measures we have recommended a package to mitigate smoke and ember attack. This includes screening operable windows, screening or enclosing all gaps >3mm in size, installing draught excluders on external side-hung doors, fitting external roller doors with relevant seals and added protection on any ducted air ventilation systems.

7.04 Property Access

The subject site has street frontage to Powderworks Road to the southwest and McLean Street to the northeast. Access to the existing dwelling and proposed distillery is via McLean Street to the northeast.

The logical firefighting platform is to the rear of the building accessed from the existing 4 metre wide access drive.

The existing access arrangements were found to be sufficient for fire-fighting operations and occupant evacuation with suitable turning provisions existing.

The access has the capacity to support fire-fighting operations and satisfy the requirements for Access as detailed in section 7.4 of PBP.

Persons seeking to egress the proposed development will be able to do so via the existing access drive and existing public road network.

It is of our opinion that the existing access arrangements will provide safe access to/from the public road system for firefighters providing property protection during a bushfire and for occupant egress or evacuation.

7.05 Water Supply & Utilities

In ground hydrants are available along Powderworks Road for the replenishment of attending fire services. There are no hydrants located within McLean Street and therefore a 10,000 litre Static Water Supply (SWS) is required.

Additionally the buildings will be fitted with relevant essential fire services (i.e. fire hose reels and fire extinguishers) as required by the NCC.

The required water supply is considered adequate for the needs of attending fire services.

Any new gas and electrical connections must comply with Table 7.4a of PBP 19.

7.06 Emergency management arrangements

Evacuation is possible by utilising existing road infrastructure.

It is recommended that the operators of the distillery complete a Bush Fire Survival Plan. The template for this plan is available at <https://www.rfs.nsw.gov.au/resources/bush-fire-survival-plan>.

7.07 Landscaping

Any new landscaping must comply with Section 3.7 'Landscaping' and Appendix 4 of *Planning for Bush Fire Protection 2019*.

7.08 Aim & Objectives of PBP

The National Construction Code (NCC) does not provide for any bush fire specific performance requirements for Class 5 to 8 buildings and as such Australian Standard 3959 'Construction of buildings in bushfire-prone areas' 2009 (AS3959) does not apply as a set of 'deemed to satisfy' provisions.

The application of AS 3959 should be considered when meeting the aim and objectives of PBP.

The following table details the aim and objectives of Planning for Bush Fire Protection 2019 and the proposals ability to comply.

Aim / Objective	Comment
<p>The aim of PBP is 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.</p>	<p>With the inclusion of the recommendations made herein it is of our opinion that the aim of PBP has been satisfied.</p>
<p>(i) afford buildings and their occupants protection from exposure to a bush fire;</p>	<p>Suitable Asset Protection Zones are provided.</p>
<p>(ii) provide for a defensible space to be located around buildings;</p>	<p>The existing defensible space includes the existing access and carpark providing a logical fire-fighting platform for attending fire services if required.</p>

Aim / Objective	Comment
(iii) provide appropriate separation between a hazard and buildings which, in combination with other measures minimise material ignition;	The existing Asset Protection Zones to the proposed distillery, coupled with the general type of construction (masonry walls, metal roofing, slab on ground) and the location of the existing building, provides for appropriate setbacks and minimises potential material ignition.
(iv) ensure that appropriate operational access and egress for emergency service personnel and residents is available;	The existing access arrangements have been reviewed and are considered adequate for fire-fighter access and occupant evacuation.
(v) provide for ongoing management and maintenance of bush fire protection measures, (BPMs); and	<p>All APZs within the subject site will continue to be maintained in accordance with an Inner Protection Area as detailed in Appendix 4 of Planning for Bush Fire Protection 2019 and the NSW Rural Fire Service publication 'Standards for Asset Protection Zones'.</p> <p>Any future Landscaping is to comply with the provisions of Table 7.4a and Appendix 4 of PBP – 2019.</p>
(vi) ensure that utility services are adequate to meet the needs of firefighters.	The required Static Water Supply (SWS) and the required water supply under the NCC is considered adequate for the replenishment of attending fire services.

It is therefore of our opinion that the proposal can satisfactorily comply with the aim and objectives of Planning for Bush Fire Protection 2019.

8.0 Recommendations

The following recommendations are provided as the minimum necessary for compliance with the pre-release of *Planning for Bush Fire Protection 2019*. Additional recommendations are provided to supplement these minimum requirements where considered necessary.

Asset Protection Zones

1. All grounds within the subject site not built upon from the subject building to the north-western and south-eastern property boundaries and for a minimum distance of 21 metres to the southwest and 31 metres to the northeast shall continue to be maintained in accordance with an Inner Protection Area as detailed in Appendix 4 of *Planning for Bush Fire Protection 2019* and the NSW Rural Fire Service publication 'Standards for Asset Protection Zones'.
2. Any future Landscaping is to comply with the provisions of Appendix 4 of PBP - 2019'.

Construction

3. That all gaps >3mm or more on the subject building (proposed distillery) and the existing dwelling be either screened within aluminium, steel or bronze metal mesh having an aperture size of $\leq 2\text{mm}$ or be sealed / closed.
4. That all operable windows for both the subject building (proposed distillery) and existing dwelling be screened internally or externally with aluminium, steel or bronze metal mesh having an aperture size of $\leq 2\text{mm}$ in such a way that the entire opening is screened when in the open position.
5. That the external side-hung doors on both the subject building (proposed distillery) and existing dwelling be tight fitting and fitted with a draft excluder. This may require draft excluders on the stiles, head, sill or threshold and rebated or planted jambs & centre stiles.
6. That the external panel lift doors on subject building (proposed distillery) have tight fitting guide tracks / seals (not providing a gap >3mm when in the closed position).
7. That any mechanical ducted ventilation on subject building (proposed distillery) provides screens over air intake vents and ensuring that exhaust vents are either screened or fitted with dampers that close when positive outward air pressure is lost to ensure the maintain ember protection to the inside of the building.

Emergency management

8. That the occupants of the subject dwelling complete a Bush Fire Survival Plan.

Water

9. That a 10,000 litre static water supply be provided within the subject property, where this supply is a water tank it shall comply with the following;
 - a connection for firefighting purposes is located within the IPA or non-hazard side and away from the structure; 65mm Storz outlet with a ball valve is fitted to the outlet;
 - ball valve and pipes are adequate for water flow and are metal;
 - supply pipes from tank to ball valve have the same bore size to ensure flow volume;
 - underground tanks have an access hole of 200mm to allow tankers to refill direct from the tank;
 - a hardened ground surface for truck access is supplied within 4m;
 - above-ground tanks are manufactured from concrete or metal;
 - raised tanks have their stands constructed from non-combustible material or bush fire-resisting timber (see Appendix F of AS 3959);
 - unobstructed access can be provided at all times;
 - underground tanks are clearly marked;
 - tanks on the hazard side of a building are provided with adequate shielding for the protection of firefighters;
 - all exposed water pipes external to the building are metal, including any fittings;
 - where pumps are provided, they are a minimum 5hp or 3kW petrol or diesel-powered pump, and are shielded against bush fire attack; any hose and reel for firefighting connected to the pump shall be 19mm internal diameter; and
 - fire hose reels are constructed in accordance with AS/NZS 1221:1997, and installed in accordance with the relevant clauses of AS 2441:2005.
 - that a 5hp or 3kW petrol or diesel-powered pump and 19mm internal diameter fire hose capable of reaching all points of the tourist accommodation building is provided.

Access

10. That the existing access drive is to comply with the following requirements for Access as detailed in section 7.4 of Planning for Bush Fire Protection 2019:
 - minimum 4m carriageway width;
 - in forest, woodland and heath situations, rural property roads have passing bays every 200m that are 20m long by 2m wide, making a minimum trafficable width of 6m, at the passing bay;
 - a minimum vertical clearance of 4m to any overhanging obstructions, including tree branches;
 - property access must provide a suitable turning area in accordance with Appendix 3;
 - curves have a minimum inner radius of 6m and are minimal in number to allow for rapid access and egress;
 - the minimum distance between inner and outer curves is 6m;
 - the crossfall is not more than 10 degrees;
 - maximum grades for sealed roads do not exceed 15 degrees and not more than 10 degrees for unsealed roads; and

Note: Some short constrictions in the access may be accepted where they are not less than 3.5m wide, extend for no more than 30m and where the obstruction cannot be reasonably avoided or removed. The gradients applicable to public roads also apply to community style development property access roads in addition to the above.

Services (where applicable)

9. That any new electrical and gas services are to comply with Table 7.4a of Planning for Bush Fire Protection 2019 as follows:

Electricity

- where practicable, electrical transmission lines are underground; and
- where overhead, electrical transmission lines are proposed as follows:
 - lines are installed with short pole spacing (30m), unless crossing gullies, gorges or riparian areas; and
 - no part of a tree is closer to a power line than the distance set out in accordance with the specifications in ISSC3 Guideline for Managing Vegetation Near Power Lines.

Gas

- reticulated or bottled gas is installed and maintained in accordance with AS/NZS 1596:2014 and the requirements of relevant authorities, and metal piping is used;
- all fixed gas cylinders are kept clear of all flammable materials to a distance of 10m and shielded on the hazard side;
- connections to and from gas cylinders are metal;
- polymer-sheathed flexible gas supply lines are not used; and
- above-ground gas service pipes are metal, including and up to any outlets.

9.0 Conclusion

Given that the property is deemed bushfire prone under Northern Beaches Council's Bushfire Prone Land Map any development would need to meet the requirements of *Planning for Bush Fire Protection*. The determination of any bushfire hazard must be made on a site-specific basis that includes an assessment of the local bushland area and its possible impact to the subject property.

We are of the opinion that the proposed development satisfies the relevant specifications and requirements of Planning for Bush Fire Protection 2019.

In accordance with the bushfire safety measures contained in this report, and consideration of the site specific bushfire risk assessment it is our opinion that when combined, they will provide a reasonable and satisfactory level of bushfire protection to the subject development.

We are therefore in support of the development application.

Should you have any enquiries regarding this project please contact me at our office.

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Building Code & Bushfire Hazard Solutions P/L



Stuart McMonnies
G. D. Design in Bushfire Prone Areas.
Certificate IV Fire Technology
FPA Australia BPAD Level 3 Accredited Practitioner
BPAD Accreditation No. BPAD9400



10.0 Annexure 01

List of Referenced Documents

ELVIS -Elevation -Foundation Spatial Data. Elevation.fsdf.org.au. Available at: <http://elevation.fsdf.org.au/>

Keith, D. (2004). "Ocean Shores to Desert Dunes" Department of Environment and Conservation, Sydney

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NSW Rural Fire Service (2019). *Planning for Bushfire Protection. A Guide for Councils, Planners, Fire Authorities and Developers.*

Standards Australia (2018). *AS3959, Construction of buildings in bushfire-prone areas.*

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Resources and Energy NSW (2016). *ISSC3 Guideline for Managing Vegetation Near Power Lines*

Plans by ISA Designs; Project No. DA_200629; Issue: 2; REV. B; Dated: 23.07.2020

Acknowledgements to:

NSW Department of Lands – SIXMaps
Northern Beaches Council's Online Mapping Database
Nearmap.com
Geoscience Australia
Street-directory.com.au

Attachments

Attachment 01: S4.14 Certificate



Building Code & Bushfire Hazard Solutions

(Pty. Limited) ABN 19 057 337 774
PO Box 124, Berowra NSW 2081
Telephone: (02) 9457 6530
www.bushfirehazardsolutions.com.au



BUSHFIRE RISK ASSESSMENT CERTIFICATE UNDER PART 4 DIVISION 4.3 SECTION 4.14 OF THE EP&A ACT 1979 NO 203

PROPERTY ADDRESS:	Lot 36 McLean Street, Ingleside
DESCRIPTION OF PROPOSAL:	Home Distillery
PLAN REFERENCE: (relied upon in report preparation)	Plans by ISA DESIGNS, Project No DA_200629, Revision B, Date 29.06.2020
BAL RATING:	N/A <small>(If the BAL rating is FZ the application is to be referred to NSW RFS for assessment)</small>
DOES THE PROPOSAL RELY ON ALTERNATE SOLUTIONS:	YES NO <small>(Circle the relevant response)</small> <small>(If YES the application is to be referred to NSW RFS for assessment)</small>
BUSHFIRE ASSESSMENT REPORT REFERENCE:	210034
REPORT DATE:	16 th September 2020
CERTIFICATION NO/ACCREDITED SCHEME	BPAD9400

I Stuart McMonnies of Building Code and Bushfire Hazard Solutions Pty Ltd hereby certify, in accordance with Part 4 Division 4.3 Section 4.14 of the *Environmental Planning and Assessment Act 1979 No 203*:

1. That I am a person recognised by the *NSW Rural Fire Service* as a qualified consultant in bushfire risk assessment; and
2. That subject to the recommendations contained in the Bushfire Risk Assessment Report the proposed development conforms specifications and requirements of the documents entitled *Planning for Bush Fire Protection* prepared by the NSW Rural Fire Service in co-operation with the Department of Planning and any other documents as prescribed by Part 4 Division 4.3 Section 4.14 of the *Environmental Planning and Assessment Act 1979 No 203*.

I am aware that the Bushfire Assessment Report, prepared for the above mentioned site is to be submitted in support of a development application for this site and will be relied upon by Council as the basis for ensuring that the bushfire risk management aspects of the proposed development have been addressed in accordance with *Planning for Bushfire Protection 2019*.

Signature:  Date: 16th September 2020

