



BUSHFIRE MITIGATION REPORT
FM 5724-A
for
FRASERS PROPERTY AUSTRALIA
At
PRECINCTS A
MOUNTAIN RIDGE ROAD
NEW BEITH

PREPARED BY
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21/08/2024





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PROFILES

DISCLAIMER

Experienced fire fighters with extensive knowledge of building have prepared this Report. Their practical knowledge of fire fighting has been backed up by academic study.

However, fire is an element of nature. Small natural occurrences can disastrously affect the outcome of the best planning. Human actions similarly can have disastrous results.

Whilst every care has been taken in the formulation of this management report, there can be no guarantee that even the strictest adherence to its recommendations can guarantee safety of life and property.

The authors of this report accept no responsibility for any damage to life or property caused by fire or any other cause to persons using land or structures, which could in any way be construed to be the subject of this report.

The report has been commissioned as the land falls within an area deemed a fire risk by the local authority.

As such, it must be recognized that structures upon this land and those using the structures could be deemed at risk.

Logo by LogoInstant

Very Important Note:

This report is valid for the following periods;

- A maximum time of 5 years from date of preparation.
- The currency of the legislation referred to in Section 1 Report Brief
- Changes to any legislation generally that may impact on the report outcomes.

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- Changes to vegetation, both on and off site, which may impact on the results of this report
- Any other changes that may impact on the report in any manner.

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ANY SUCH USE WILL BE PROSECUTED TO THE FULL EXTENT OF THE LAW.

THIS REPORT RELIES ON THE AS 3959 FOR THE CALCULATION OF CONSTRUCTION LEVELS.

ANY POSSIBLE ERRORS IN THE STANDARD ARE NOT THE RESPONSIBILITY OF THE AUTHOR.

THIS REPORT IS ONLY TO BE USED AND DISTRIBUTED AS A COMPLETE REPORT CONTAINING AS A MINIMUM SECTIONS 1,2,3,4 AND 5 (SECTIONS 5.1 & 5.2)

THIS REPORT IS NOT TO BE AMENDED IN ANY WAY BY ANY PERSONS OTHER THAN THE ORIGINAL AUTHOR.

THIS REPORT IS ONLY TO BE USED FOR PROJECTS IDENTIFIED IN THE REPORT AND REPRESENTED ON THE SITE PLAN ACCOMPANYING THE REPORT.

INTRODUCTION

This Fire Management Report has been written for the benefit of future occupants of this proposed site and developed in accordance with the requirements of:

- The Logan City Council Town Plan,
- o SPP 07/2017.
- Queensland Planning Act 2016
- o "Bushfire Resilient Communities Technical Reference Guide for the State Planning Policy State Interest" Natural Hazards, Risk and Resilience-Bushfire" published by QFES and Queensland Government.
- Natural hazards, risk and resilience-Bushfire State Planning Policy-state interest guidance material published by Queensland Government
- Bushfire Resilient Building Guidance for Queensland Homes published by CSIRO and Queensland Government
- The National Construction Code
- o Queensland Bushfire Plan published by Queensland Government prepared by QFES.
- Australian Standard AS3959.
- o International Fire Safety Engineering Guidelines

The report has been prepared as supporting documentation for a Material Change of Use (Building) /Reconfiguration of Lot Application.

1.1. Address:

Mountain Ridge Road

New Beith

1.2. Local Authority

Logan City Council

1.3. R.P.D

Lot 4 on RP45728

1.4. Site area

2511390m²

1.5. Responsible Fire Authority

Rural Fire Service Queensland via the rural fire brigade for rural fires and QFES for Structural fires.

1.6. Potential Bushfire Hazard Rating.

The hazard rating maps prepared for the Council show the ratings on this property ranging from Medium to Very High and being In a Bushfire Hazard Buffer Area.

The draft risk rating maps prepared for the State Government show the ratings on this property ranging from Medium to Very High and being In a Bushfire Hazard Buffer Area.

1.7. Land tenure

Freehold

1.8. Adjoining owners are:

Freehold

1.9. Current Land Use:

Vacant

1.10. Fire danger Index

FFDI 55 (FFDI 40 nominated by AS 3959)

1.11. Topography

Undulating to Steep hills

1.12. Predominant Wind Direction

The predominate wind direction is from the South East. In times of severe fire weather the wind direction will be from the North West. The Topography will create microclimates, which will cause swirling, which will modify the apparent wind direction according to primary direction and velocity

1.13. Slope

Variable- see individual transects.

1.14. Aspect

Various

1.15. **Fuel Type**

Predominate vegetation

Fuel Loads calculated on Qld Government Methodology Transects 1-5 & 8

Transects 1-5 & 6									
	REGIONAL ECOSYSTEM	બ્ ઇ	VHC DESCRIPTION	SURFACE & NEAR SURFACE FUEL LOAD	TOTAL FUEL LOAD	% COVER	EFFECTIVE SURFACE & NEAR SURFACE FUEL LOADS	EFFECTIVE FUEL LOAD	
	12.9-10.2	10.1	Spotted Gum dominated open forests	19.3	20.8	100	19.3	20.8	

Transects 6 & 7

REGIONAL ECOSYSTEM	VHC	VHC	SURFACE & NEAR SURFACE FUEL LOAD	TOTAL FUEL LOAD	% COVER	EFFECTIVE SURFACE & NEAR SURFACE FUEL LOADS	EFFECTIVE FUEL LOAD
12.9-10.2	10.1	Spotted Gum dominated open forests	19.3	20.8	50	9.65	10.4
12.9-10.12	9.2	Moist to dry eucalypt woodland on coastal lowlands and ranges	14.9	17.2	30	4.47	5.16
12.9-10.7	13.2	Dry to Moist eucalypt woodlands on undulating metamorphics and granite	12.8	14.4	20	2.56	2.88
TOTAL FUEL LOAD						16.68	18.44

1.16. **Threat Vegetation Location** Subject and adjoining sites

1.17. **Fire History**

There is no evidence of a recent fire event

1.18. **Location of Access Tracks**

The site will be served by a sealed road system

1.19. **Location of Fire Breaks**

There are no formal firebreaks

Location of existing firefighting Infrastructure The site is to be served by reticulated water 1.20.

1.21. **Historical and Cultural Sites**

There is no evidence of Historical and Cultural sites on the property.

2. SITE AND HAZARD ASSESSMENT

2.1. Discussion with Responsible Fire Authority

The fire management report has not been discussed with the Fire Brigade.

2.2. Vegetation Types

The vegetation type predominate to this site are as scheduled in section 1.15

2.3. Potential Bushfire Hazard Rating.

Desktop study Site inspection and assessment against the State Planning Policy Mapping Methodology generally confirms the intent of both Local Government and State Mapping in that the area is in a Potential Bushfire Hazard Area, and the relevant aspects required for Town Planning and Building are to be addressed.

2.4. Building Construction

All buildings situated within the site are in a Designated Risk Area. There is a requirement that certain Buildings within this area be constructed in accordance with the National Construction Code/Building Code of Australia, which refers to either the Australian Standard for Construction in Bushfire Prone Areas (AS 3959) or NASH Standard-Steel Framed Construction in Bushfire Areas as Deemed to Satisfy Solutions.

The levels determined effect the types and usage of materials in relation to the type of Bushfire Attack, which may occur as assessed under the Standard. The Level of Bushfire Attack is assessed taking the vegetation types, slope, and distance from vegetation into account. The most common elements affected are Windows and flyscreening, with some restrictions on cladding and timber types. A comprehensive breakdown is available in either the National Construction Code, the Australian Standard for Construction in Bushfire Prone Areas or NASH Standard-Steel Framed Construction in Bushfire Areas.

Extracts of these documents are not provided due to copyright reasons. Full details can be obtained from your building designer or certifier.

Note that the Building Code of Australia only requires Classes 1,2 and 3 buildings and Class 10a building associated with those buildings to comply with the bushfire provisions of the NCC /BCA.

However, it may be considered appropriate, due to the nature of these buildings that they are built in compliance with AS 3959.

Where a plan used to show the construction levels that may apply to a house, the base construction level is taken as the highest level shown that the house is located in. The house cannot be graded in construction levels in accordance with distance from the vegetation.

Building Class requirements AS 3959

Transect 5

2.4.1.	FDI	55
2.4.2.	Vegetation Classification	Site Specific Fuel

Site Specific Fuel Loads (Qld Gov.) Vegetation Classification

2.4.3. Land slope Downslope 9 degrees

Distance of building from Predominate vegetation	Primary Bushfire Attack Level
class (m)	
(Vegetation Management Zone)	
0-<14	BAL -FZ
14-<18.5	BAL-40
18.5-<27	BAL-29
27-<38	BAL-19
38-<100	BAL-12.5
100-	BAL-LOW

Transect 6 & 7

2.4.4. 55

Site Specific Fuel Loads (Qld Gov.) Downslope 2.4.5. Vegetation Classification

Land slope 2.4.6. 4 degrees

Distance of building from Predominate vegetation class (m) (Vegetation Management Zone)	Primary Bushfire Attack Level
0-<9.4	BAL -FZ
9.4-<12.8	BAL-40
12.8-<18.9	BAL-29
18.9-<27.3	BAL-19
27.3-<100	BAL-12.5
100-	BAL-LOW

Transect 8

2.4.7. FDI

2.4.8. Vegetation Classification Site Specific Fuel Loads (Qld Gov.)

2.4.9. Land slope Downslope 12 degrees

Distance of building from Predominate vegetation class (m) (Vegetation Management Zone)	Primary Bushfire Attack Level
0-<15.9	BAL -FZ
15.9-<21.5	BAL-40
21.5-<31.1	BAL-29
31.1-<43.3	BAL-19
43.3-<100	BAL-12.5
100-	BAL-LOW

Note:

The levels shown above have been produced using Method 2 as outlined in the AS 3959. Printouts of these calculations are included as Appendix 5.3.1.

The Vegetation management zone is described as all areas managed to a Low Threat condition encompassed by the distance between the building and threat vegetation from which construction levels are taken.

The distances shown above are horizontal distances, not measured along the slope.

Construction levels for elevations of a building that are subject to shielding from the fire sources can be reduced in accordance with 3.5 of AS 3959 by one level but not below BAL-12.5 All fire sources on adjoining sites and across roads must be considered when utilising this reduction.

Construction Levels are shown as part of a comprehensive Bushfire Management Plan.

They are provided for the end user of the land and its eventual occupants.

They are not provided for assessment by Local Authority, in accordance with the Planning Act 2016, The State Planning Policy, and The Building Act 1975.

The Planning Act 2016 Section 8 What are Planning Instruments (5) and (6) state;

- (5) A local planning instrument must not include provisions about building work, to the extent the building work is regulated under the building assessment provisions, unless permitted under the Building Act.
- (6) To the extent a local planning instrument does not comply with subsection (5), the local planning instrument has no effect.

The Building Act 1975, Section 31 states;

- "(4) A local law, local planning instrument or local government resolution must not include provisions about building work, to the extent the building work is regulated under a code under subsection (3).
- (5) To the extent a local law, local planning instrument or local government resolution does not comply with subsection (4), the local law; local planning instrument or local government resolution is of no effect.
- (6) Subsections (3) to (5) are subject to sections 32 and 33."

2.5. Ecological Requirements

There are no specific ecological requirements in relation to bushfire management.

Note;

The Category of Bushfire Attack referred to in the Australian Standard is different to the Hazard/Risk area referred to above.

Extensive modification of the existing vegetation types including that on adjoining sites could result in a change of Category of Bushfire Attack and therefore variation in the Level of construction required.

It is the responsibility of the owner of each individual site to ensure that plantings subsequent to their occupation of the site do not reduce the safety of their buildings in a manner, which could require a higher level of Construction than that originally utilised

3. RISK MANAGEMENT PLAN

3.1. Agencies / Persons Responsible

The responsible Fire Authority is the Queensland Fire and Emergency Service being responsible for all Fires It is the responsibility of the Developers and Owners of the properties to ensure that the relevant measures required by this Management Report are in place prior to inspection by the Council and the Building Certifier and to ensure that those measures are in place prior to the occupation of any buildings, which are the subject of this report. It is the responsibility of Council and Building Certifiers to ensure that relevant measures within their responsibility are in place prior to the issuance of any certification.

3.2. Bushfire Safety Objective

The objective of this report is to minimise potential risk to life and property by protecting the buildings from the effects of bushfire.

3.3. Aims

The aims to achieve this objective are to mitigate the effect of the bushfire attack mechanisms of: -

- 3.3.1. Radiant Heat
- 3.3.2. Direct Flame Contact
- 3.3.3. Wind
- 3.3.4. Ember Attack
- 3.3.5. Smoke

3.4. Functional Requirements

The functional requirements to achieve this objective are: -

- 3.4.1. The provision of safe conditions for fire fighters
- 3.4.2. The provision of safe conditions for residents
- 3.4.3. Ensure adequate and safe access to and from the property
- 3.4.4. Ensure adequate and safe water supply to the property and the establishment of firefighting water reserves
- 3.4.5. Provide a system of fire breaks and trails to protect the building component
- 3.4.6. Remove vegetation that is considered dangerous and a hazard in Fire Conditions
- 3.4.7. To ascertain the required standard of construction of the buildings in accordance with the requirements of the National Construction Code and the Australian Standard for Construction in Bushfire Prone Areas or the provision of a satisfactory alternative solution
- 3.4.8. Facilitate the return to "normalcy "

3.5. Proposed Fire Fighting Infrastructure

3.5.1. The proposed buildings are to be served by a reliable reticulated water supply. This is to always have sufficient flow and pressure characteristics for fire-fighting purposes with a minimum pressure of 200kpa and a minimum flow rate of 10l per second in accordance with "Fire Hydrant and Vehicle Access Guidelines for Residential, Commercial and Industrial Lots" published by QFES and Qld Government.

3.6. Vegetation management

- 3.6.1. Where staging of the development places buildings within 100m of bushland that forms part of a later stage to be cleared, the bushland is to be cleared and maintained in a managed state as described in 3.6.2 on, for a distance of 100m from the building, or the building has to comply with the structural levels in accordance with Bushfire Provisions of the NCC/BCA, and the Level of Construction assessed under "Site and Hazard Assessment"
- 3.6.2. All grass and existing mid storey vegetation within the Vegetation Management Zone shall be kept to a maximum of 100mm at all times or be of less flammable or rain forest species.
- 3.6.3. Existing non rainforest trees within this area are to be reduced to give a noncontinuous canopy cover between trees with a total cover of less than 30% of the area.
- 3.6.4. No trees that are of protected size are required to be removed to comply with the above requirements
- 3.6.5. The above vegetation management scenario will produce a Low Threat scenario like "maintained public reserves and parklands" as cited in section 2.2.3.2(f) of AS 3959.
- 3.6.6. The width of the vegetation management zone noted above can be used to calculate the required BAL.
- 3.6.7. All other grass within a further 15 m or to the boundary, whichever is lesser shall be kept to a maximum of 200 mm at all times, with a reduction to 100mm during Fire Season.
- 3.6.8. All other grass in unforested areas to be kept to a maximum of 300 mm at all times by slashing and/or grazing to 100m from the building or the boundary, whichever is the minimum.
- 3.6.9. All dead and damaged timber to be removed from the building envelope and the surrounding areas indicated to be fuel reduced and removed from site.
- 3.6.10. Requirements noted above may be subject to State and Local Authority approval. Those approvals must be obtained prior to implementation of any of these measures.
- 3.6.11. Refer to Sections 14 and 19 of the Planning Act 2016 in relation to Local Authority Approval.
- 3.6.12. The management referred to above is regarded as "Essential Management "(necessary to remove or reduce the imminent risk that the vegetation poses of serious personal injury or damage to infrastructure" under the Sustainable Planning Regulation Schedule 24. It is recommended that the owner register any clearing work with www.dnrm.qld.gov.au, "Vegetation management notification form for self-assessable codes".

©

3.6.13. This legislation is currently under review. It is the owner's responsibility to make any necessary enquiries to ensure compliance with the current legislation with important amendments made in December 2019., as noted below:

Under changes to **Planning Regulation 2017 effective December 13, 2019**, permitted operational work includes the following:

Schedule 6, Part 3, Section 20A - Operational work for necessary firebreaks or fire management lines

Operational work that is clearing native vegetation if-

- (a) the clearing is necessary for—
- (i) establishing or maintaining a necessary firebreak to protect infrastructure, other than a fence, road or vehicular track, and the maximum width of the firebreak is equal to 1.5 times the height of the tallest vegetation next to the infrastructure, or 20m, whichever is the wider; or
- (ii) establishing a necessary fire management line, and the maximum width of the clearing for the fire management line is 10m; and
- (b) the clearing—
 - (i) is on freehold land; or
 - (ii) is on indigenous land; or
 - (iii) is on land leased under the Land Act 1994 for agriculture or grazing purposes; or
- (iv) is on land leased under the Land Act 1994, other than for agriculture or grazing purposes, and is consistent with the purpose of the lease; or
- (v) is on trust land under the Land Act 1994, other than indigenous land, is carried out, or allowed to be carried out, by the trustee and is consistent with achieving the purpose of the trust; or
- (vi) is on unallocated State land and is carried out, or allowed to be carried out, by the chief executive of the department in which the Land Act 1994 is administered; or
- (vii) is on land that is subject to a licence or permit under the Land Act 1994 and is carried out by the licensee or permittee.

As an example, with a height of the tallest vegetation being between 30 – 35m, the width of clearing would be calculated as between 45 – 52.5m.

Under Planning (Spit Master Plan and Other Matters) Amendment Regulation 2019 (Subordinate Legislation 2019 No.243) amends Schedule 6 Part 3 stating that "Development local categorising instrument is prohibited from stating if the above operational work is assessable development".

Under Schedule 7 Part 3 this is placed in context, stating that the above operational work is accepted development.

The management is a component of the Construction Level. Therefore, the Building Certifier must ensure that the management has occurred in accordance with this report before issuing final certification

Recent research (Project Vesta) indicates that tree canopy without mid storey and surface fuels forms an important filter for control of ember attack, which is responsible for in excess of 90% all bushfire related house fires.

3.7. Fencing

Any boundary fencing located adjoining bushland, or a fire access trail is to be

- 3.7.1. A maximum of 1000mm high
- 3.7.2. At least 75 % transparency
- 3.7.3. Contain at least 1 personal gate to each adjoining lot and

Fencing between houses should be of materials matching the requirements for external walls for the relevant level of construction of the subject house where within 6m of the house.

3.8. Fire Trail and Fire Break Maintenance

3.8.1. Proposed driveways are to be kept in a condition suitable for 2wd Heavy Vehicles at all times.

3.9. Building Construction

All construction is to be in accordance with National Construction Code/Building Code of Australia, which refers to either the Australian Standard for Construction in Bushfire Prone Areas (AS 3959) or NASH Standard-Steel Framed Construction in Bushfire Areas as Deemed to Satisfy Solutions. and the Level of construction assessed under "Site and Hazard Assessment."

Note that it is our opinion that timber should not be used externally for BAL-29 plus construction even though under the Australian Standard situations could arise where it could be deemed acceptable.

The plans lodged for Building Certification are to be assessed on this basis by the Building Certifier.

A final stage completion certificate (Form 21) issued by the Building Certifier is to be received prior to occupation of the building.

Buildings are not to be occupied until certification is received

Buildings are to be maintained in a manner that protects the integrity of the construction and building elements as outlined in this report

3.10. Street Numbering

Numbering is to be installed in accordance with the current Street Numbering System at time of completion of building.

3.11. Less Flammable Landscaping

Any new landscaping within the vegetation management zones is to be Less Flammable, in accordance with the list enclosed as an Appendix at the rear of this Report, rainforest species, or cultivated gardens, and comply with the requirements of "Bushfire Resilient Communities Technical Reference Guide for the State Planning Policy State Interest" Natural Hazards, Risk and Resilience-Bushfire" published by QFES and Queensland Government, and "Natural hazards, risk and resilience-Bushfire-Assessment Benchmark 5" which cite a maximum Fuel Load of 8t/ha for revegetation or rehabilitation within bushfire prone areas.

"Bushfire Resilient Building Guidance for Queensland Homes" published by Qld State Government provides a schedule of species in Appendix E.

https://www.gra.gld.gov.au/bushfireguideline

3.12. Insurance

Failure to comply with this management report may have a detrimental effect upon the Insurance of the subject Buildings.

3.13. Emergency Response Procedures

In the event of Fire Emergency, assistance is to be obtained by dialling 000

3.13.1. The owner should read thoroughly the brochures contained and those recommended at the rear of this report. They contain valuable information that could assist in the saving of lives and property in a fire event!

3.14. Community Awareness Strategies

3.14.1. Each subsequent owner is to be provided with a copy of this Fire Management report with an alert placed on either Title or Council Rate searches that the Report is in existence and is to be made available to ensuing owners.

3.15. Administering Staff

It is the responsibility of the developers and owners to ensure compliance with this Report and the Town Plan, and to ensure that each of the new owners is provided with a copy of this report.

It is the responsibility of the Council and the Building Certifier to ensure that the relevant measures required by this management report are in place prior to the final completion stage inspection of any buildings on any sites which are the subject of this report as noted in Clause 3.1 of this report.

It is the responsibility of the ensuing owners of the properties to maintain the properties in the conditions outlined in this report.

4. FIRE MANAGEMENT ACTION SUMMARY AND SCHEDULE

DEVELOPMENT REQUIREMENTS	BUILDING REQUIREMENTS	MAINTENANCE
	Buildings to comply with the National Construction Code/Building Code of Australia.	Regular mowing and maintenance of the vegetation management areas as set out in this report.
	No occupation until compliance with Standard and Management Report	Drive access to be kept clear and accessible to satisfaction of the Fire Brigade.
		Building materials are to be maintained in "as new "condition to preserve the integrity of the relevant materials.

5. APPENDICES

- 5.1. Form 15
- 5.2. Site Plans
- 5.3. Supporting Information:
 - 5.3.1. Method 2 Calculation printouts
 - 5.3.2. Fuel Load Calculation

Note. These items below are referenced for information purposes only and are not to be construed as being part of the management report

This information is generic and not provided for approval purposes.

It is only provided for end user knowledge

- 5.3.3. Planning Regulation Fact Sheet December 2019
- 5.3.4. Prepare. Act. Survive
- 5.3.5. Rural property Fire Management Guide 2010
- 5.3.6. Notes for Landholders
- 5.3.7. Bushfire Action Guide
- 5.3.8. Bushfire Safety in Urban Fringe Areas
- 5.3.9. Water + Power -Vital for Fire fighting
- 5.3.10. Less Flammable Vegetation
- 5.3.11. Fire Retardant Native Plants
- 5.3.12. Tree selection for Fire-Prone Areas
- 5.3.13. Bushfire Resilient Building Guidance for Queensland Homes Appendix E
- 5.3.14. First Draft (specifying timber in bush fire zones)
- 5.3.15. External water spray system
- 5.3.16. Fire Retardant Coating Solutions
- 5.3.17. Archicentre Bushfire Design Guide
- 5.3.18. Section 3.8 Sign Types Fire Trail Signage of the GCCC Natural Areas Management Unit Signage (Page 16)
- 5.3.19. Trail Number and Key Point signage
- 5.3.20. Bushfire Hydrant detail
- 5.3.21. Tank detail
- 5.3.22. Recycled Water for Firefighting
- 5.3.23. Sample Easement Document
- 5.3.24. Bushfire Windows and Shutters
- 5.3.25. A guide to retrofit your home for better protection from a bushfire.
- 5.3.26. FireFly BAL-FZ System
- 5.3.27. Bushfire Planning and Design Certification Scheme Update
- 5.3.28. Eaves Water System
- 5.3.29. Aussi Ember Guard
- 5.3.30. The Australian "False Alarm: the great rainforest fire that wasn't"
- 5.3.31. Hijacking Australian 2019 Bushfire Tragedies to Fearmonger Climate Change
- 5.3.32. Bushfires have been in Australia for over 60 million years

We also recommend that the landholder obtains and reads the following;

5.3.33. Bushfire Hazard Planning in Queensland

5.3.34. Protecting your home against Bushfire

Both available from the Dept. of Local Government and Planning, and

5.3.35. Fire in Bushland Conservation

Available from Queensland Heritage Trust.

5.3.36. Bushfire Resilient Building Guidance for Queensland Homes

https://www.gra.qld.gov.au/bushfireguideline

Signed

E J Bottcher

.....

Eldon Bottcher

Grad. Dip. DBPA (UWS) Dip. Arch. (QIT), Cert. R.F.M. (USQ), F.R.A.I.A., M.A.I.E.S. AlFireE

Architect

BPAD-L3 Practitioner



Guidelines

APPENDIX 5.1 FORM 15

Form 15

Compliance certificate for building design or specification



This form is to be used by an appointed competent person for the purposes of section 10 of the *Building Act 1975* and sections 73 and 77 of the Building Regulation 2021(Design-specification certificate) stating that an aspect of building work or specification will, if installed or carried out a stated in this form, comply with the building assessment provisions.

Additional explanatory information is included in the Appendix at the end of this form.

1. Property description

This section need only be completed if details of street address and property description are applicable.

E.g., in the case of (standard/generic) pool design/shell manufacture and/or patio and carport systems this section may not be applicable.

The description must identify all land the subject of the application.

The lot and plan details (e.g., SP/RP) are shown on title documents or rates notice.

If the plan is not registered by title, provide previous lot and plan details. Street address (include no., street, suburb/locality, and postcode)
Mountain Ridge Road New Beith

State QLD Postcode

Lot and plan details (attach list if necessary) Lot 4 on RP45728

Local government area the land is situated in. Logan City Council

2. Description of aspect/s certified

Clearly describe the extent of work covered by this certificate, e.g., all structural aspects of the steel roof beam. Work as required for bushfire mitigation purposes as set out in the Bushfire Management Report FM 5724-A prepared by Eldon Bottcher Architect Pty Ltd including assessment of Construction Levels assessed under AS 3959 and nominated in Section 2.4 of the report.

3. Basis of certification

Detail the basis for giving the certificate and the extent to which tests, specifications, rules.

standards, codes of practice and other publications were relied upon. Compliance with the Bushfire Management Report FM 5724-A prepared by Eldon Bottcher Architect Pty Ltd

No certification of components covered by The Building Act 1975, The building Code of Australia or AS 3959.

Council/1 Town Plan Bushfire Management Constraint code.

4. Reference documentation

Clearly identify any relevant documentation, e.g., numbered structural engineering plans. Bushfire Mitigation Report FM 5724-A+B

5. Building certifier reference number and building development application	Building certifier reference number			
number	Building development application number	er (if available)		
	Not Available			
6. Appointed Competent person details.	Name (in full) Eldon John Bottcher			
Under Part 6 of the Building Regulation a person must be assessed as a competent for the type of work (design - specification) by the relevant building	Company name (if applicable) Eldon Bottcher Architect Pty Ltd	Contact person Eldon Bottcher		
certifier.	Business phone number 07 55920082	Mobile number 0412434134		
	Email address. bushfires@eb-a.com.au			
	Postal address P.O. Box 3606			
	Robina Town Centre	Postcode 4230		
	Licence Class or registration type (if applicable)			
		No)		
	Reg Architect Qld 1325			
	FPA Australia BPAD Level 3 practitioner 16935			
7. Signature of appointed	Signature	Date		
competent person This certificate must be signed by the individual assessed and appointed by the building certifier as competent to give design-specification help.	E J Bottcher	21 August 24		

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	Date received		Reference Number/s	
--	---------------	--	--------------------	--

APPENDIX 5.2 SITE PLANS



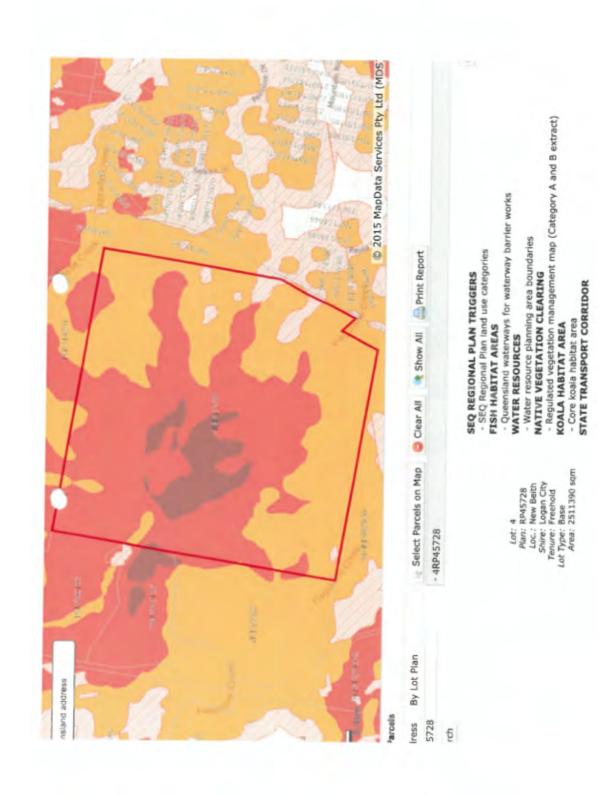


APPENDIX 5.3 SUPPORTING INFORMATION

(NOTE: SOME OF THIS INFORMATION IS GENERIC AND NOT PROVIDED FOR APPROVAL PURPOSES. IT IS ONLY PROVIDED FOR END USER KNOWLEDGE)



AERIAL PHOTO



STATE BUSHFIRE HAZARD MAPPING



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		The state of the s
PROJECT	PROPOSED RESI	DENCES
SITE ADDRESS	MOUNTAIN RIDG NEW BEITH	E ROAD
IMPUTS	TRANSECTS 1, 2. FUEL LOADS QLD	& 3 D GOVERNMENT METHODOLOGY
FOI		55
VEGETATION TYPE	SEE TABLE	lille Specific Fuel Loads
TOTAL FUEL LOAD		20,8 tonnes/his
SLOPE LINDER VEGETATION		+15 degrees.
SLOPE BETWEEN VEGETATIO	N AND BUILDING	-15 degrees
FLAME WIDTH		100 m
ELEVATION OF RECEIVER		2.4 m
DISTANCE BETWEEN VEGE	TATION AND BUILDING	5.4 m
RESULTS		
RADIANT HEAT		38.82 kw/m²
FLAME LENGTH		5.44 m
MATE OF SPREAD		0.45 km/hr
ATMOSPHERIC TRANSMISSI	иту	BDW
PEAK ELEVATION OF RECEIVE	ER.	3.4 m
FLAME ANGLE		45 dogrees
CONSTRUCTION LEVEL REC	DUIPED	BAL-40 BAL
ELDON BOTTCHER ARCH	ITECT PTY LTD (G) 22/4	4/22



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THIS ASSESS	SMENT USES AS 3959	METHOD 2
PROJECT	PROPOSED RESIDER	NCES
SITE ADDRESS	MOUNTAIN RIDGE R	DAD
INPUTS	TRANSECTS 1, 2 & 5 FUEL LOADS QLD GO	OVERNMENT METHODOLOGY
FDI		55
VEGETATION TYPE	SEE TABLE	filte Specific Fuel Loads
TOTAL FUEL LOAD		20.6 tonnes/hs
BLOPE UNDER VEGETATION		-15 disgrees
BLOPE BETWEEN VEGETATION AND BUILDING		-15 day
FLAME WIDTH		100]m
ELEVATION OF RECEIVER		4 m
DISTANCE BETWEEN VEGETATION AND BUI	LDING	7.1 m
RESULTS		
RADIANT HEAT		28.86 kw/m²
FLAME LENGTH		5.44 m
NATE OF SPREAD		0.45 km/hr
ATMOSPHERIC TRANSMISSIMTY		88%
PEAK ELEVATION OF RECEIVER		4 m
FLAME ANGLE		53 degrees
CONSTRUCTION LEVEL REQUIRED		BAL-29 BAL
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	PROJECT	PROPOSED	RESIDENCES	
	SITE ADDRESS	MOUNTAIN NEW BEITH	RIDGE ROAD	
	INPUTS	TRANSECTS FUEL LOADS		MENT METHODOLOGY
	FDI			65
	VEGETATION TYPE	SEE TABLE	Qua S	pecific Fuel Loads
	TOTAL FUEL LOAD	SEE TRUE	Sile	20.8 tonnes/ne
	SLOPE LINCED VEGETATION			-15 decrees
- 4	SLOPE BETWEEN VEGETATION AND BUILDING			-15 degrees
	FLAME WIOTH			100 m
ij	ELEVATION OF RECEIVER			5.1 m
	DISTANCE BETWEEN VEGETATION AND BUIL	DING		10.4 m
	RESULTS			
	RADIANT HEAT			T se nelsonal
				18.95 kw/m²
	PLAME LENGTH			5,44 m
	PATE OF SPREAD			0.45 km/hr
-1	ATMOSPHERIC TRANSMISSIMITY			B7%
0	PEAK BLEVATION OF RECEIVER			5,1 m
1	FLAME ANGLE			60 degrees
	CONSTRUCTION LEVEL REQUIRED			BAL-19 BAL
E	LDON BOTTCHER ARCHITECT PTY LTD	por	22/4/22) OF C



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PROJECT	PROPOSED RES	IDENCES	
SITE ADDRESS	MOUNTAIN RIDG	GE ROAD	
IMPUTS	TRANSECTS 1, 2 FUEL LOADS QL	& 3 D GOVERNMENT METHODOLOGY	
FDI		5.5	
VEGETATION TYPE	SEE TABLE	Site Specific Foel Londs	
TOTAL FUEL LOAD		20.8 tormes/hii	
SLOPE UNDER VEGETATION		-15 degrees	
SLOPE BETWEEN VEGETATION AND BUILDIN	G	-15 degrees	
FLAME WIDTH		190 m	
BLEVATION OF RECEIVER		6.5 m	
DISTANCE BETWEEN VEGETATION AND	BUILDING	15.1] m	
RESULTS			
RADIANT HEAT		12.49 kw/m²	
FLAME LENGTH		5.44 m	
MATE OF SPREAD		0.45 km/hr	
ATMOSPHERIC TRANSMISSIMTY		R5%	
PEAK ELEVATION OF RECEIVER		6.5 m	
FLAME ANGLE		65 degrees	
CONSTRUCTION LEVEL REQUIRED		BAL-125 BAL	
	/s. =		
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THIS ASSES	SMENT USES AS 385	8 METHOD 2	
PROJECT	PROPOSED RESI	DENCES	
SITE ADDRESS	MOUNTAIN RIDG	E ROAD	
	TRANSECT 4	GOVERNMENT METHODOLOGY	
INPUTS	POEE COMOS GEO	GOVERNMENT METHODOLOGY	
FDI		55	
VEGETATION TYPE	SEE TABLE	Site Specific Fuel Loads	
TOTAL FUEL LOAD		20.8 tonnes/ha	
SLOPE LADER VISIBILITATION		-12 degrees.	
SLOPE BETWEEN VEGETATION AND BUILDING		-12 degrees.	
FLAME WIDTH		100] m	
ELEVATION OF RECEIVER		3.4 m	
DISTANCE BETWEEN VEGETATION AND BU	ILDING	5.8 m	
RESULTS			
RADIANT HEAT		39,51 kw/m²	
FLAME LENGTH		6,11 m	
BATE OF SPREAD		0.66 km/hr	
ATMOSPHERIC TRANSMISSIMTY		89%	
PEAK ELEVATION OF RECEIVED		3,4 m	
FLAME ANGLE		46 degrees	
CONSTRUCTION LEVEL REQUIRED		BAL-40 BAL	
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PROJECT	PROPOSED RES	IDENCES
SITE ADDRESS	MOUNTAIN RIDG	GE ROAD
INPUTS	TRANSECT 4 FUEL LOADS QL	D GOVERNMENT METHODOLOGY
FDI		55
VEGETATION TYPE	SEE TABLE	Site Specific Fuel Loads
FOTAL FUEL LDAD		20.9 tonnés/ha
SLOPE LADER VEGETATION		=12 degrees.
SLOPE BETWEEN VEGETATION AS	NO BUILDING	-12 degrees
FLAME WIDTH		100 m
ELEVATION OF RECEIVER		4.16 m
DISTANCE BETWEEN VEGETATI	ON AND BUILDING	7.8 m
RESULTS		
RADIANT HEAT		28.68 kw/m²
FLAME LENGTH		6.41 m
RATE OF SPREAD		0.86 km/hr
ATMOSPHERIC TRANSMISSIMTY		B8%
PEAK ELEVATION OF REDEIVER		4.16 m
FLAME ANGLE		55 degrees
CONSTRUCTION LEVEL REQUIR	900	BAL-29 BAL
ELDON BOTTCHER ARCHITEC	CT PTY LTD (C) 22/	14/22 1 DF
	INPUTS FDI VEGETATION TYPE FOTAL FUAL LOAD SLOPE BETWEEN VEGETATION AND FLAME WIDTH ELEVATION OF RECEIVER DISTANCE BETWEEN VEGETATION RESULTS RADIANT HEAT FLAME LENGTH RATE OF DIPILEAD ATMOSPHERIC TRANSMISSIMTY PEAK ELEVATION OF RECEIVER FLAME ANGLE CONSTRUCTION LEVEL REQUIRE	PROJECT SITE ADDRESS MOUNTAIN RICH NEW BEITH TRANSECT 4 FUEL LOADS OF INPUTS FDX VEGETATION TYPE SEE TABLE TOTAL FUEL LOAD SLOPE BETWEEN VEGETATION SLOPE BETWEEN VEGETATION AND BUILDING FLAME WIDTH BLEVATION OF RECEIVER DISTANCE BETWEEN VEGETATION AND BUILDING RESULTS RADIANT HEAT FLAME LENGTH RATE OF BIPIEAD ATMOSPHERIC TRANSMISSIMTY PEAK ELEVATION OF RECEIVED FLAME ANGLE CONSTRUCTION LEVEL REQUIRED



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PROJECT	PROPOSED RES	DENCES
SITE ADDRESS	MOUNTAIN RIDG	SE ROAD
INPUTS	TRANSECT 4 FUEL LOADS QL	D GOVERNMENT METHODOLOGY
FDI		55
VEGETATION TYPE	SEE TABLE	See Specific Fuel Loads
TOTAL FUEL LOAD		20.8 tonnes/hs
SLOPE UNDER VEGETATION		-12 degrees
SLOPE BETWEEN VEGETATION	A AND BUILDING	-12 diamen
FLAME WIDTH		100) m
ELEVATION OF RECEIVER		5.1] (7)
DISTANCE BETWEEN VEGET	TATION AND BUILDING	11.4
RESULTS		
RADIANT HEAT		18.90 kw/m²
FLAME LENGTH		6.11 m
RATE OF SPREAD		0.66 km/hr
ATMOSPHERIC TRANSMISSIM	TY	86%
PEAK ELEVATION OF RECEIVE	a.	5.1 m
FLAME ANGLE		63 degrees
CONSTRUCTION LEVEL REQ	UIPED	BAL-19 BAL
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PROJECT	PROPOSED RESI	IDENCES
SITE ADDRESS	MOUNTAIN RIDG	GE ROAD
INPUTS	TRANSECT 4 FUEL LOADS QUI	D GOVERNMENT METHODOLOGY
FDI		55
VEGETATION TYPE	SEE TABLE	Specific Fuel Loads
TOTAL FUEL LOAD		20,8 torres/ra
SLOPE UNDER VEGETATION		-12 degrees
SLOPE RETWEEN VEGETATION	N AND BUILDING	-12 degrees
FLAME WIDTH		100 m
ELEVATION OF RECEIVER		6.3 m
DISTANCE BETWEEN VEGET	16.5 m	
RESULTS		
PADIANT HEAT		12.50 kw/m²
FLAME LENGTH		6.11 m
HATE OF SPREAD		0.58 km/hr
ATMOSPHERIC TRANSMISSIV	TY.	85%
PEAK ELEVATION OF RECEIVE	A.	6.3 m
FLAME ANGLE		67 degrees
CONSTRUCTION LEVEL REQ	UIRED	BAL-12.5 BAL
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PROPOSED RES	DENCES
11100,3700 1000	DENCES
MOUNTAIN RIDG	AE ROAD
TRANSECT 5 FUEL LOADS QL	D GOVERNMENT METHODOLOGY
	55
REE TARLE	Dite Specific Fuel Londs
DEE TRUEE	
	20.8 tomes/hit
	B declare
JILDING	9 degrees
	100 m
	5.5 m
AND BUILDING	14 m
	39,03 kw/m²
	17,80 m
	2.37 km/hr
	.87%
	5.5 m
	59 degrees
	BAL-40 BAL
TY LTD (C) 22	4/22 1 OF
	TRANSECT 5 FUEL LOADS QU SEE TABLE



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PROJECT	PROPOSED RES	BIDENCES
SITE ADDRESS	MOUNTAIN RID NEW BEITH	GE ROAD
INPUTS	TRANSECT 5 FUEL LOADS QL	LD GOVERNMENT METHODOLOGY
FDI		55
VEGETATION TYPE	SEE TABLE	Specific Fuel Loads
TOTAL FUEL LOAD		20.8 tonnes/h
SLOPE UNDER VEGETATION		9 degrees
SLOPE BETWEEN VEGETATION	ON AND BUILDING	E degrees
FLAME WIDTH		100) m
BLEVATION OF RECEIVER		5.4 m
DISTANCE BETWEEN VEGE	ETATION AND BUILDING	18.5 m
RESULTS		
RADIANT HEAT		29.01 kw/m ²
FLAME LENGTH		17.90 m
BATE OF SPREAD		2,37 km/hr
ATMOSPHERIC TRANSMISSI	MTY	B5%
PEAK ELEVATION OF RECEIV	ER	5.4 m
FLAME ANGLE		69 degrees
CONSTRUCTION LEVEL RE	QUIRED	BAL-29 BAL
ELDON BOTTCHER ARCH	MIRCI RIVLIG NO. 20	2/4/22 1.00
ELECTION DOLLER WHILE	22 miles 10 miles 22	3



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PROJECT	PROPOSED	RESIDENCES	
SITE ADDRESS	MOUNTAIN NEW BEITH	RIDGE ROAD	
INPUTS	TRANSECT S	the same and the same of the same of	MENT METHODOLOGY
FDI			55
VEGETATION TYPE	SEE TABLE	Site 5	Specific Fuel Loads
FOTAL FUEL LOAD			20.8 toma/h
SLOPE LADER VEGETATION			9 degrees
SLOPE BETWEEN VEGETATION AND BUILDING			9 degrees
FLAME WIDTH			100 m
ELEVATION OF RECEIVER			4.5 m
DISTANCE HETWEEN VEGETATION AND BUILD	LDING		27 m
RESULTS			
RADIANT HEAT			18.99 kw/m²
FLAME LENGTH			17.90 m
BATE OF SPREAD			2.97 km/hr
ATMOSPHERIC TRANSMISSIMTY			82%
PEAK ELEVATION OF RECEIVER			4.5 m
FLAME ANGLE			78 degrees
CONSTRUCTION LEVEL REQUIRED			BAL-19 BAL
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THIS ASS	SESSMENT USES AS 39	59 METHOD 2
PROJECT	PROPOSED PES	IDENCES
SITE ADDRESS	MOUNTAIN RIDG NEW BEITH	BE ROAD
	TRANSECT 5	D GOVERNMENT METHODOLOGY
INPUTS	roce conos de	D GOVERNMENT METHODOGOGY
FDI		5.5
VEGETATION TYPE	SEE TABLE	Site Specific Fuel Loads
TOTAL FUEL LOAD		20.6 tonnes/hyt
SLOPE UNDER VEGETATION		9 degrees
SLOPE BETWEEN VEGETATION AND BUILDS	NG	9 degrees
FLAME WIDTH		100 m
ELEVATION OF RECEIVER		2,8 m
DISTANCE BETWEEN VEGETATION AND	BUILDING	38 m
RESULTS		
RADIANT HEAT		12.49 kw/m²
FLAME LENGTH		17.90 m
RATE OF SPREAD		2.37 km/hr
ATMOSPHERIC TRANSMISSIVITY		80%
PEAK BLEVATION OF RECEIVER		2.8 m
FLAME ANGLE		82 degrees
CONSTRUCTION LEVEL REQUIRED		BAL-12.5 BAL
ELDON BOTTCHER ARCHITECT PTY L	.TO 601 22	14722 (5)1



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PROJECT	PROPOSED RES	SIDENCES
SITE ADDRESS	MOUNTAIN RID NEW BEITH	GE ROAD
INPUTS	TRANSECTS 6 6	£7 LD GOVERNMENT METHODOLOGY
FDI		55
VEGETATION TYPE	SEE TABLE	Site Specific Fuel Loads
TOTAL PLEEL LISAD		18.44 tonnes/h
SLOPE UNDER VESETATION		4 degrees
SLOPE BETWEEN VIXILITATI	ON AND BUILDING	4 degrees
FLAME WIDTH		100 m
ELEVATION OF RECEIVER		4.1 m
DISTANCE BETWEEN VEG	ETATION AND BUILDING	9.4 m
RESULTS		
RADIANT HEAT		40.01 kw/m²
FLAME LENGTH		11.64 m
RATE OF SPREAD		1.45 km/hr
ATMOSPHERIC TRANSMISS	SIVITY	88%
FEAK ELEVATION OF RECEI	VIR	4,1 m
FLAME ANGLE		55 degrees
CONSTRUCTION LEVEL PE	EQUIRED	BAL-40 BAL
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PROJECT	PROPOSED F	RESIDENCES	
SITE ADDRESS	MOUNTAIN F	UDGE ROAD	
INPUTS	TRANSECTS FUEL LOADS		MENT METHODOLOGY
FDI			56
VEGETATION TYPE	SEE TABLE	Gha S	Specific Fuel Loads
TOTAL FUEL LOAD			16,44 tonnes/he
SLOPE LINDER VEGETATION			4 degrees
SLOPE BETWEEN VEGETATION AND BUILDING			4 degrees
FLAME WIDTH			100 m
ELEVATION OF RECEIVER			4.4 m
DISTANCE HETWEEN VEGETATION AND BUILD	LDING		12.8 m
RESULTS			
BADIANT HEAT			28.91 kw/m ²
FLAME LENGTH			11.64 m
BATE OF SPREAD			1.45 Km/hr
ATMOSPHERIC TRANSMISSINTY			86%
PEAK ELEVATION OF RECEIVER			4.4 m
FLAME ANGLE			67 degrees
CONSTRUCTION LEVEL PEQUIRED			BAL-29 BAL
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PROJECT	PROPOSED F	RESIDENCES	
SITE ADDRESS	MOUNTAIN F	UDGE ROAD	
INPUTS	TRANSECTS FUEL LOADS		MENT METHODOLOGY
FDI			56
VEGETATION TYPE	SEE TABLE	Gha S	Specific Fuel Loads
TOTAL FUEL LOAD			16,44 tonnes/he
SLOPE LINDER VEGETATION			4 degrees
SLOPE BETWEEN VEGETATION AND BUILDING			4 degrees
FLAME WIDTH			100 m
ELEVATION OF RECEIVER			4.4 m
DISTANCE HETWEEN VEGETATION AND BUILD	LDING		12.8 m
RESULTS			
BADIANT HEAT			28.91 kw/m ²
FLAME LENGTH			11.64 m
BATE OF SPREAD			1.45 Km/hr
ATMOSPHERIC TRANSMISSINTY			86%
PEAK ELEVATION OF RECEIVER			4.4 m
FLAME ANGLE			67 degrees
CONSTRUCTION LEVEL PEQUIRED			BAL-29 BAL
ELDON BOTTCHER ARCHITECT PTY LTD	(0)	22/4/22	10



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PROPOSED RESI	DENCES
MOUNTAIN RIDG NEW BEITH	IE ROAD
TRANSECTS 6 & FUEL LOADS QLI	7 D GOVERNMENT METHODOLOGY
	55
SEE TABLE	Sna Specific Fuel Loads
	18.44 tonnes/hii
	4 degrees
ON AND BUILDING.	// degraes
	100) m
	4.3 m
ETATION AND BUILDING	18.9 m
	18,96 kw/m ³
	11.64 m
	1.45 km/hr
VITY	B4%
TO .	4,3 m
	75 degrees
QUIFES	BAL-19 BAL
ITECT PTY LTD (G) 22/	4/22 I DF
	MOUNTAIN RIDGINEW BEITH TRANSECTS 6 & FUEL LOADS QUI SEE TABLE ON AND BUILDING.



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PROJECT	PROPOSED RES	IDENCES
BITE ADDRESS	MOUNTAIN RIDG NEW BEITH	GE ROAD
INPUTS	TRANSECTS 6 & FUEL LOADS QU	7 D GOVERNMENT METHODOLOGY
FDI		55
VEGETATION TYPE	SEE TABLE	Site Specific Fuel Loads
TOTAL FUEL LOAD		18.44 tonnes/h
SLOPE UNDER VEGETATION		4 degraes
SLOPE BETWEEN VEGETATION AND	DIGULDING.	4 degrees
FLAME WIDTH		100) m
ELEVATION OF RECEIVER		3.8 m
DISTANCE BETWEEN VEGETATIO	N AND BUILDING	27.3 m
RESULTS		
RADIANT HEAT		12,44 kw/m²
FLAME LENGTH		11.64 m
RATE OF SPREAD		1.45 km/hr
ATMOSPHERIC TRANSMISSIVITY		62%
PEAK ELEVATION OF RECEIVER		5,6 m
FLAME ANGLE		60 degrees
CONSTRUCTION LEVEL REQUIRE	D	BAL-12.5 BAL

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SLOPE BETWEEN VEGETATION AND BUILDING FLAME WIDTH ELEVATION OF RECEIVER DISTANCE BETWEEN VEGETATION AND BUILDING 12 degreen 100 m 5.9 m	PROJECT	PROPOSED RES	IDENCES
FOR SEE TABLE Site Specific Fuel Loads VEGETATION TYPE SEE TABLE Site Specific Fuel Loads TOTAL FUEL LOAD 20.8 tonness SLOPE LINDER VEGETATION AND BUILDING 12 degrees FLAME WIDTH 100 m ELEVATION OF RECEIVER 5.9 m DISTANCE BETWEEN VEGETATION AND BUILDING 15.9 m	SITE ADDRESS		GE ROAD
VEGETATION TYPE SEE TABLE Site Specific Fuel Loads TOTAL FUEL LOAD SLOPE UNDER VEGETATION 12 degrees SLOPE BETWEEN VEGETATION AND BUILDING 12 degrees FLAME WIDTH 100 m ELEVATION OF RECEIVER 5.9 m DISTANCE BETWEEN VEGETATION AND BUILDING 15.9 m	INPUTS	Contraction of the	D GOVERNMENT METHODOLOGY
VEGETATION TYPE SEE TABLE Site Specific Fuel Loads TOTAL FUEL LOAD \$1.0PE UNDER VEGETATION \$1.0PE BETWEEN VEGETATION AND BUILDING FLAME WIDTH ELEVATION OF RECEIVER DISTANCE BETWEEN VEGETATION AND BUILDING \$1.00 m \$1.00 m			56
SLOPE UNDER VEGETATION SLOPE BETWEEN VEGETATION AND BUILDING FLAME WIDTH ELEVATION OF RECEIVER DISTANCE BETWEEN VEGETATION AND BUILDING 20.8 tonness 12 degrees 12 degrees 5.9 m DISTANCE BETWEEN VEGETATION AND BUILDING 15.9 m		are times	
SLOPE LINDER VEGETATION AND BUILDING 12 degrees FLAME WIDTH ELEVATION OF RECEIVER DISTANCE BETWEEN VEGETATION AND BUILDING 12 degrees 12 degrees 15.9 m		SHE TABLE	
SLOPE BETWEEN VEGETATION AND BUILDING FLAME WIDTH ELEVATION OF RECEIVER DISTANCE BETWEEN VEGETATION AND BUILDING 12 degreen 100 m 5.9 m	TOTAL FLIEL LOAD		20.8 tonnes/he
FLAME WIDTH ELEVATION OF RECEIVER 5.9 m DISTANCE BETWEEN VEGETATION AND BUILDING 15.9 m	SLOPE LINDER VEGETATION		12 degrees
ELEVATION OF RECEIVER 5.9 m DISTANCE BETWEEN VEGETATION AND BUILDING 15.9 m	SLOPE BETWEEN VEGETATION AND BUILD	DING	12 degrees
DISTANCE BETWEEN VEGETATION AND BUILDING 15.9 m	FLAME WIDTH		100 m
	ELEVATION OF RECEIVER		5.9 m
RESULTS	DISTANCE BETWEEN VEGETATION AND	BUILDING	15.9 m
100/0/0/00	RESULTS		
RADIANT HEAT 39.90 kw/m²	RADIANT HEAT		39.90 kw/m²
FLAME LENGTH 21.45 m	FLAME LENGTH		21.45 m
RATE OF SPREAD 2.92 km/hr	RATE OF SPREAD		2.92 km/hr
ATMOSPHERIC TRANSMISSIVITY 8694	ATMOSPHERIC TRANSMISSIVITY		8614
PEAK ELEVATION OF RECEIVER 5.9 m	PEAK ELEVATION OF RECEIVER		5,9 m
FLAME ANGLE 60 degrees	FLAME ANGLE		60 degrees
CONSTRUCTION LEVEL REQUIRED BAL-40 BAL	CONSTRUCTION LEVEL REQUIRED		BAL-40 BAL
ELDON BOTTCHER ARCHITECT PTY LTD (C) 22/4/22	ELDON BOTTCHER ARCHITECT PTY	LTD (C) 22/	10



ELDON BOTTCHER ARCHITECT PTY LTD

DLD. 4327

145 VARSITY PARADE PH 0755920082
VARSITY LAXES E architects@eb-a.com.au



	Title recognisms to use the u	mattiger 2
PROJECT	PROPOSED RE	SIDENCES
BITE ADDRESS	MOUNTAIN RID NEW BEITH	OGE ROAD
Mark Land	TRANSECTS 8 FUEL LOADS O	LD GOVERNMENT METHODOLOGY
INPUTS		
FDI		85
VEGETATION TYPE	SEE TABLE	Site Specific Fuel Loads
TOTAL FUEL LOAD		20,8 tonnes/ha
SLOPE LINDER VEGETATION		12 degreen
SLOPE BETWEEN VEGETATION	AND SUILDING	12 diagram
FLAME WIDTH		100 m
ELEVATION OF RECEIVER		4]m
DISTANCE BETWEEN VEGETA	ATION AND BUILDING	31.1 m
RESULTS		
RADIANT HEAT		18.96 kw/m²
FLAME LENGTH		21.45 m
RATE OF SPREAD		2.92 km/hr
ATMOSPHERIC TRANSMISSIMT	y.	81%
PEAK ELEVATION OF RECEIVEN		4) m
FLAME ANGLE		79 degrees
CONSTRUCTION LEVEL REQU	IIREO	BAL-19 BAL
ELDON BOTTCHER ARCHIT	ECT PTY LTD (C) 25	2/4/22



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	THIS ASSESSMENT USES AS 3909	METHOD 2
PROJECT	PROPOSED RESID	ENCES
SITE ADDRESS	MOUNTAIN RIDGE NEW BEITH	ROAD
INPUTS	TRANSECTS 8 FUEL LOADS QLD	GOVERNMENT METHODOLOGY
FDI		55
VEGETATION TYPE	SEE TABLE	Site Specific Fuel Loads
TOTAL FUEL LOAD		20.8 tonnes/hs
SLOPE UNDER VEGETATION		12 degrees
SLOPE BETWEEN VEGETATION	AND BUILDING	12 degrees
FLAME WIDTH		100 m
BLEVATION OF RECEIVER		1.4 m
DISTANCE BETWEEN VEGETA	ATION AND BUILDING	43.3] m
RESULTS		
RADIANT HEAT		12.49 kw/m ⁰
FLAME LENGTH		21.45 m
RATE OF SPREAD		2.92 km/hr
ATMOSPHERIC TRANSMISSINT	Y .	79%
PEAK ELEVATION OF RECEVER		1.4 m
FLAME ANGLE		83 degrees
CONSTRUCTION LEVEL REQU	UIFED	BAL-12.6 BAL
ELDON BOTTCHER ARCHIT	ECT PTY LTD (C) 22/4	100
	INPUTS FDI VEGETATION TYPE TOTAL FUEL LOAD SLOPE UNDER VEGETATION SLOPE BETWEEN VEGETATION BLOPE BETWEEN VEGETATION FLAME WIDTH BLEVATION OF RECEIVER DISTANCE BETWEEN VEGET RESULTS RADIANT HEAT FLAME LENGTH RATE OF SPREAD ATMOSPHERIC TRANSMISSINT PEAK ELEVATION OF RECEIVER FLAME ANGLE CONSTRUCTION LEVEL RECEIVER	PROJECT SITE ADDRESS MOUNTAIN RIDGE NEW BEITH TRANSECTS 8 FUEL LOADS QLD INPUTS FDI VEGETATION TYPE SEE TABLE TOTAL FUEL UMO BLOPE UNDER VEGETATION AND BUILDING FLAME WIDTH BLEVATION OF RECEIVER DISTANCE BETWEEN VEGETATION AND BUILDING RESULTS RADIANT HEAT FLAME LENGTH PACE OF SPREAD ATMOSPHERIC TRANSMISSIMTY PEAK BLEVATION OF RECEIVER FLAME ANGLE CONSTRUCTION LEVEL REQUIRED









State-wide Bushfire Prone Area Mapping

Vegetation Hazard Class Descriptions and Fuel Characteristics - Jan 2017

			Potential Fuel Load (t/ha)			Type !		F), Consti			
Vogeta	ation Hazard Class	Surface	Near Surface	Devaned	Bark	Total (Remnant)	Total (Non- Remnant)	Remmant	Nov-Remmant	Remmant	
1.1	Complex mesaphyll to notophyll vine forests	2.6	0.0	0.0	0.0	2.6	12.0	3	1	2	
2.1	Complex to simple, semi-deciduous mesophyll to notophyll vine forest	3.5	0.0	0.0	0.0	3.5	12.0	3	1	2	
3.1	Nataphyll vine forest	4.5	0.0	0.0	0.0	4.5	12.0	3	1	3	
3.3	Nataphyll vine thicket	4.4	0.0	0.0	0.0	3.4	12.0	3	- 1	2	
4.1	Notaphyll and notaphyll palm or vine forest	4.5	0,0	0.0	0.0	4.5	12.0	3	1	2	
5.1	Nataphyll to microphyll vine forests	3.9	0.0	0.0	0.0	3.9	12.0	3	1	2	
5.2	Notaphyll to microphyll vine forest with sparse overstarey	3.9	0.0	0.0	0.0	3.9	12.0	3	1	2	
5,5	Sedgeland within Notophyll to microphyll vine forests	3.9	0.0	0.0	0,0	3.9	12.0	3	1	2	
6.1	Mantane Notophyll vine forest and microphyll fern forest	3.9	0.0	0.0	0.0	3.9	12.0	3	1	2	
6.3	Montane Notaphyll vine thicket and microphyll fern thicket	3.9	0.0	0.0	0.0	3.9	12.0	3	1	2	Ī
7.1	Semi-evergreen to deciduous microphyll vine forest	6.0	0.0	0.0	0,0	6.0	12.0	3	1	2	Ī
7.2	Sparse semi-evergreen to deciduous microphyll vine forest	6.0	0.0	0.0	0.0	6.0	12.0	3	1	2	
8.1	Wet eucalypt tall open forest	28.0	3.0	2.0	2.0	35.0	35.0	.1	1	1	
8.2	Wet eucalypt tall woodland	18.0	3.1	1.7	1.0	23.8	23.8	1	1	1	
9.1	Moist to dry eucalypt open forests on coastal lawlands and ranges	17,5	3,5	2.2	1.0	24.2	24.2	1	1	1	
9.2	Most to dry eucalypt woodland on caustal lowlands and ranges	11.4	3.5	1.3	1.0	17.2	17.2	1	4	1	
9.3	Shrubland within moist to dry eucalypt on coastal lowlands and ranges	7.8	3.0	1.9	0.0	12.7	12.7	1	1	2	
10.1	Spotted guer duminoted ligan forests	16.3	3.0	LS	0.0	20.8	20.8	1	1	1	Ī
10.2	Spotted gum dominated woodlands	14.0	3.0	1.0	0.0	13.0	18.0	.1	1	1	
11.2	Moist to dry eucalypt woodlands on basalt areas	7.5	4.0	0.5	1.0	13.0	13.0	1	-1	1	Ī
12.1	Dry eucalypt open forest on sandstone and shallow sails	15.0	3.5	2.5	2.0	21.0	21.0	1	1	1	Ī
12.2	Dry eucalypt woodlands on sandstone and shallow soils	12.0	2.6	1.8	1.0	17.4	17.4	1	1	1	
13.1	Dry to moist eucalypt open forests on undulating metamorphics and granite	15.9	3.5	L4	1.0	21.8	21.8	1	1	1	

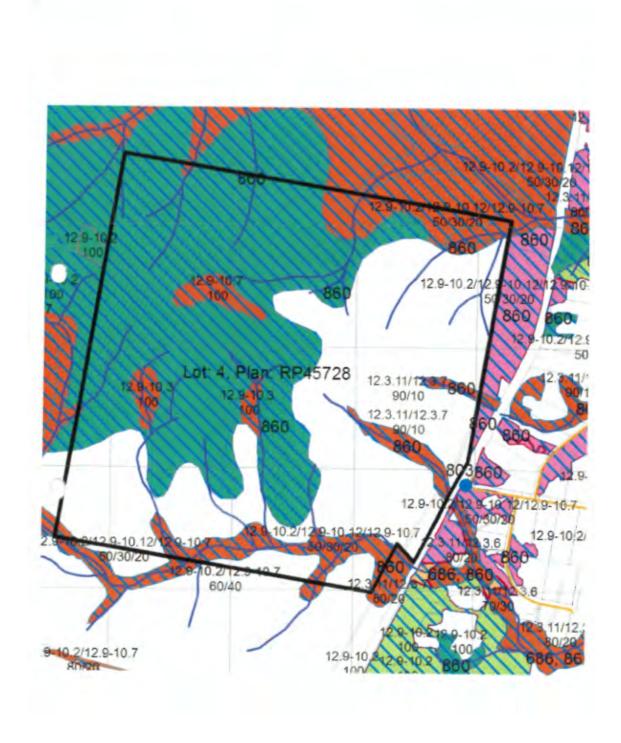
¹ Prone Type: 1 = Bushfire Prone, 2 = Grass Fire Prone, 3 = Low Hazard

² Fuel Continuity: 1 = Continuous, 2 = Discontinuous

			Potential Fuel Load (t/ha)			Prone Type ¹		Contin			
Vegeta	stion Hazard Class	Surface	Near Surface	Elevated	Bark	Total (Nernoant)	Total (Non- Remnant)	Remisant	Non-Remnant	Remnant	
13.2	Dry to most excellent woodlands on undulating metamorphics and granite	9.4	3.4	0.6	1.0	14.4	14.4	E	1	1	
13.3	Shrubland associated with dry to moist excellent woodlands on undulating terrain	4.3	2.3	0.9	0.0	7.5	7.5	1	1	1	İ
14.1	Open forest dominated by Dorwin stringybark, Melville island bloodwood or scarlet gum	22.3	1.4	2.1	2,0	27,8	27.8	£	1	-1	
14.2	Woodlands dominated by Darwin stringybark, Melville Island bloodwood or scarlet gum	5.4	2.4	0.8	1.0	12.6	12.6	1	4	-1	
143	Shrubland associated with woodlands dominated by Danwin stringy-bark, Melville Island bloodwood or scatlet gum	11	3.4	3.3	1.0	8.8	0.5	1	1	- 1	
14.6	Sparsely vegetated areas associated with Danwin- stringsbark, Melville Island bloodwood or scarlet gum	0.0	0.3	1.3	0.0	1.6	1.6	3	3	2	
15.1	Temperate open eucolypt forests	23.7	0.3	1.8	1.0	26.8	25.8	1	-1	1	Τ
15.2	Temperate eucolypt woodlands	10.2	1.8	1.8	0.0	13.6	13.6	1	1	1	
16.1	Eucolyptus dominated forest on drainage lines and alluvial plains	10.0	3.8	1.2	1.0	15.0	16.0	1	1	1	
16.2	Eucolyptus dominated woodland on drainage lines and alluvial plains	7.5	3.6	0.5	0.0	11.5	11.6	1	1	1	
16.3	Shrubland associated with Eucolyptus woodlands on drainage lines	5.8	2.7	0.1	0.0	8.6	8.5	1	1	1	
16.4	Grassland associated with Eucalyptus dominated woodlands on drainage lines	0.3	2.1	0.1	0.0	2.5	2.5	2	2	1	
16.5	Sedgeland associated with Eucolyptus woodlands on drainage lines*	3.9	5.0	3.5	0.0	12.4	12.4	1	1	1	Ī
15.6	Sporsely vegetated areas associated with Eucolyptus woodlands on drainage lines	1.2	2.0	0.0	0.0	3.2	3.2	3	3	2	Ī
17.1	Dry open forests dominated by poplar box, silver-leaved ironbark or White's ironbark on sand or depositional plains	10.6	41	0.3	0.0	15.0	15.0	1	3	1	Ī
17.2	Dry wondlands dominated by poplar box, silver-leaved ironbark or White's ironbark on sand or depositional plains	6.0	3.0	0.6	0.0	9.6	9.6	1	3	1	
18.1	Dry eucalypt open forests on sund or depositional plains	10.6	3.4	0.6	0.0	14.8	14.8	1	.1	1	Π
18.2	Dry eucolypt woodlands on sand or depositional plains	7.1	3.3	0.6	0.0	11.0	11.0	1	1	ì	
18.5	Settgeland associated with dry euralyat woodlands on sand or depositional plains	3.9	3.4	3.5	0.0	10.8	10.8	1	I	1	
19.2	Law open eucalyptus woodlands dominated by snappy gum. Clancurry Bax ar Normanton bax	4.3	3.0	0.8	1.0	9.1	9.1	1	1	1	
	Shrubland associated with law open eucolypt woodlands dominated by snappy gum, Clancurry Box or Normanton box	1.7	1.5	1.3	0.0	4.5	4.5	1	1	1	
	9Grassland associated with law open eucalypt woodlands dominated by snappy gum, Cloncurry Box or Normanton box	1.6	3.3	0.3	0.0	5.2	5.2	2	2	1	

2

	Santa 1 C S		
DEN	PER_Label	VHC	VHC BESC
12.9-10.11	Melaleuca inturana low zown forest on sedimentary rocks	71.1	(7) 1 Metalesca des quan forest un sand-laine er depositional plaine
12.9-10.11a	Furthlyptus citriodona subsp. surlegates and/or E moleccare, E. saneticovic, E crebta open forest with Melaleuca integra understoney	21.1	21.3 Metaleuca dry open hared on sandplane or decembered plane.
-	on sodimentary rocks		
12.9-10.17	Excalyptus secara, Corymbia Intermedia, Angophora iniccarpa	1.7	Fig. Minor to dry evaluate wandlers' on control towards and ranges
	wrodland on sedmentary rocks		
7.9-10.124	Eucalygtus interstant, Angophora letocarpa ± Corymbia intermedia, E.	9.2	3.2 Monit to dry excelent woodland on coastal lowlands and ranges
12.5-10.13	bineticomis woodland on settimentary rocks occurring near tak		
12.5-10.14	Excellutus corumodes woodland on sedimentary rocks	13.7	17.7 Dry excellent woodlands on simpleme and shallow units.
13.9-10.144	Excellentus cilularis tall uses forest on sedimentary rocks	8.1	B.1 Wet excalcin tall open forest
16.5 19,194	Eucalyprus grandis, Lophosternon confertus, E. microconys, Syncarple glomulifars a T. pilulans open forest on sedimentary rocks occurring in moist cointal areas.	8.1	8.1 Wet sucalypt tall open forest
12.3-10.146	Eucalyptus gillularis mixed open forest on sedimentary rocks in dry sub- coastal areas	8.1	ILT Wet eucalypt tall open lovesz
17.9-10.15	Sami-evergreen sine thicker with Brachychiton rupestris on sedimentary	7.1	7.1 Semi-exception to decidacia microphyll interferent
12.9-10.16	Araucarian microphyli so notophyll sine forest on Carrososs and	5.1	5.1 Notophyll to microphyll sinc forests
1291017	Mestacia sedimenta		The section of the se
	fluctivatur admendides, E. major, E. sklanophilola a Corymbia citriodora subsp. variegata woodkasii on sedmentari rocka	9.2	9.7 Moint to dry excellent woodland on coestal limitents and ranges
12.9-10.178	Logification conferms dominated open forest on sedimentary rocks	28.1	28.1 Open forests in course locations with species such as the call in sweets how
12.5-10.17b	Conymbia citrilogiova subsp. weringsta it Eucalyphia acmenoides, Angrophora lelocarpa, E. siderophibia open forest on Calinotoic and Misotoic sediments	10.1	10.1 Sported gum duminimed open forests
12.9-01.17c	Miscapet sediments Elicalystus curries and/or Euralystus tindeliae open forest on Calindealc and Miscook sediments	91	9.1 Moist to dry autolypt open forests on coastal towlerds and owen
17.01 6.51	Open forest generally containing Eucalyphus siderophicia, E. propriesse.	9.1	11.1 Motes to dry excellent green forests on creatal low-lands and langes
12.9-10.17e	Committe incermedia on sedimentary rocks Euralyptes echemoides, E. propinguia, Corymbia intermedia ± E.	91	9.1 Moist to dry awainst spen forests on coestal backends and comes
2.5-10.18	microco y, La houtemon confertus quen forest on sedimente y rocks Angophora lelocarpa. Eucalyptus crebra woodland on sedimentary rocks	9.2	9.2 Moint to dry excellent worthand on questal iterates and ranges
7.9-10.18a	Angophora laterarps, Eurolystus crebra open forest with a sub canopy	91	9.1 Most to dry mural-program forests on courts low-linds and ones.
	of Louinosterron suaveolero recturring in pullies on sed membru rocks	2.1	o 1 would dry straight ches rowing to contra country and dright
12.9-10.186	Angophora lelocarpa, Exicalyption exserts and Califer's endfidners woodland on sedimentary rocks	5.2	9.2 Moint to dry excellent wordfland on countril lowlands and ranges.
12 9 10 19	Eucargitus (Bross subs). Ebroia woodland on aedimentary rocks	12.2	12.2 Dry excellust wreathers are sandstone and duline soils
23-10.19a	Conymissis henry a Escalyptus fibrosa subsp. fibrosa, Curymisis ottriodora	10.1	10,1 Spotted gum domesand open forms
10 A 10 Y 1	tubus, variousta open forest on sedimentar's rocks		
29-18-1-1	Estaleptus resirifora, E. grandia, Corymbia intermedia tall shrubby open forest often on remnant Terriary surfaces	5.1	9.1 Most to dry excelent open forests on course treatment and ranges.
7.0 (0.2)	Conymbia citriodora exhap variegata è Eucalyprus preire open forest on	30.1	16.1 Spotted gues directivated open finests
	Saukteenta/y/pocks	-	har a ribourne from statement of these strains.
2 9-10.20	Eurotimus montivago woodland on sedmentary rocks	8.2	8.7 Wet macely:stall woodford
2.2-10.21	Excelyption apmendides or E. portueness woodland usually with Convention tracing his instance, marrygations on Conscious to Proteincoale	9.7	3.2 Most to dry supplyed weedlend on country belonds and ranges
	adments.		
7.5-10.22	Claimed sedgetanni/strustened on sedimentary rocks. Coastal parts	34,5	34.5 Sedipsland dominated wetlands
2.9-10.21	Eucalistica metaroleuca omni forest on sedamenta y rocks	9.1	1.1 Month to divinualish spen funets or courtal lowlends and ranges.
2.4-10.34	Exculations suffulgees quart forest on sections have rocks	9.1 9.1 13.1	9.1 Millif to dry exceled open forests an countyl invaluable and surgers
23-003	Excelyption motorcaine open forest on sedimentary rocks	114	13.4 Dry to most excellen open from an architery meanurability an
3.9-10 A	Excercing receiving substitutions encoded on redmentary rocks.	4.4	gravite.
2 9-10-5	Strengtons complies often with Corymbia trachyphicia subsp	9.2	9.7 Most to dry excellent wronthest on questal towards and ranges
2010	(Pathyphinu, C. crossions subsp. variegata, Escalyptus crebra, E. Rimosa	9.2	0.2 Moint to dry excelyin wimilion in manufacture and serges
2.9-18.54	Judicip, Pilining on Supraisse, sanderone		
2.9-19.54	Sacrifestur helidonica, Corpressa sitrodora subsp. varingata è C. Si achyeriana subsp. trachestificia. Eyeoroptus fibrosa subsp. fibrosa. E.	8.1	\$3 Morel in dry reported open forests on course fundament and variety
WWW. ROOM	(3.62) Yea cover formal an quartaone conditions in the Helidan help region		
2.2-10.1p	Curalyutta decarticana a Corymbia trachyphicia cubiqui trachyphicia	12.2	12-7 Dry distript word mile or santistons and distances
7 th 10 hr	versitient on swinting weapone		
2.0-10.94	Executyones exemprises and/or E. buildyana secondarid often ARE E. planethoresies, E. thorathan, E. commit. E. mistribra and Angestiona	111	23.3 Dry excelypt wenderships wromenta and statum uses
74.031	modelphos on exerting seniornal Exertipole enginishts, E. Morteness on E. Imagrossinas, E. cretira, E. terministra and Corvistas trackopticis months of counting on	8.2	6.2 Most to dry curplyth worklose on control inwands and ranges
1 5 16 7	politrentary tooks	-	
1.5-10-4	Acres harpush, to spee firest an indinentary rocks	25-1	JA. I Brigatow Indish atten forestation heavy (fee soils.
49.00	Eucalystus cretra s & terestromis, Caryothia Issaellers, Angophora	13.2	15.2 Dry to metal excellent woodlands on undiffering metamorphics and
2 St 107 Fa	torus f. meterscripts would and an and mentary moto		armin
a comment	Sviningster galerophicus, Caryentas Internandia a E. termisparnis and conferences contentus, com forest un padenumary rocks	13.1	J2.4 Day exemple specifies on annual and distinguish.
2.010.8	Exchinging melamphines, E. crettry, wentlered an authorities; codes	172	17.2 Pry woodbards durning to gapter has, these though you had an White's immer's on past or decembered plans.



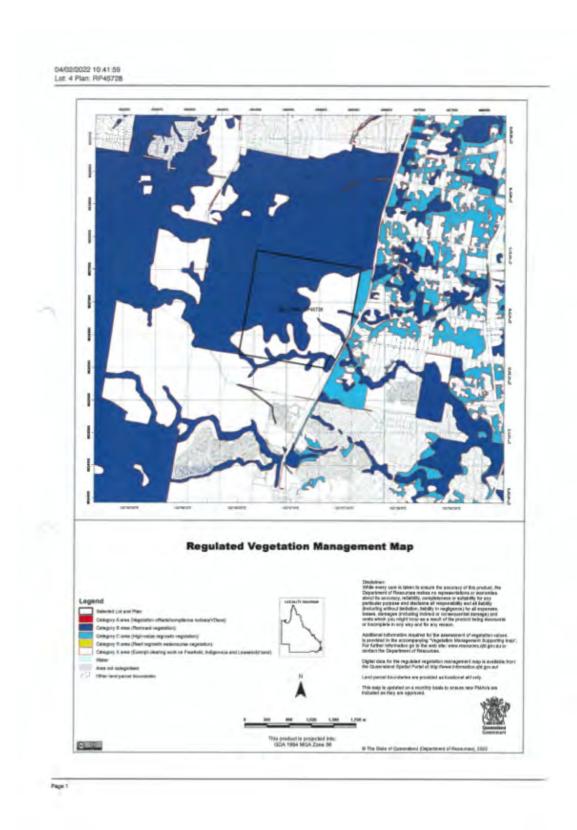
04/02/2022 10:41:59 Lot: 4 Plan: RP45728 **Vegetation Management Supporting Map** Selected, Lat and Plass
Category A. In It area, containing endiregened regional ecosystems
Category A. In It area containing of occurs regional ecosystems.
Category A. In It area that is a least occurs regional ecosystems.
Category A. In It area that is a least occurs regional ecosystems.
Category C. In It area to retaining orders great regional ecosystems.
Category C. In It area to retaining or occurs regional ecosystems.
Category C. In It area to the containing of occurs regional ecosystems.
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6.PROFILES

ELDON BOTTCHER

EDUCATION AND QUALIFICATIONS

Graduate Diploma in Design in Bushfire Prone Areas

University of Western Sydney **Diploma in Architecture**

Queensland Institute of Technology

Certificate of Rural Fire Management

University of Southern Queensland

Registered Architect

Queensland

A+ Architect

Australian Institute of Architects

FPA Australia Certified Practitioner (BPAD-Level 3-16935)

Bushfire Planning and Design (BPAD-LEVEL 3), Alternate Solutions & DTS

PROFESSIONAL MEMBERSHIPS

Fellow

Australian Institute of Architects

Member

Australian Institute of Emergency Services

Member

Australian Institute of Engineers Society of Fire Safety

Member

Queensland Environmental Law Association.

Member Board of Experts

Bushfire Building Council of Australia

Associate Member

Institution of Fire Engineers

Corporate Member

Fire Protection Association of Australia

PROFESSIONAL EXPERIENCE

Director

Eldon Bottcher Architect Pty Ltd since 1978

Bushfire Assessment and Planning Consultant since

1998

Group Officer

Albert Rural Fire Brigades Group Queensland Fire and Rescue Service

Group Officer

Gold Coast Rural Fire Brigades Group Queensland Fire and Rescue Service

Group Officer

South East Regional Support Group Queensland Fire and Rescue Service

Planning Officer

Gold Coast Rural Fire Brigades Group Queensland Fire and Rescue Service

Member Practice Committee AIA QId Chapter BBCA representation to Australian Standards

Committee FP20 (AS 3959 & AS 5414)

Life Member

Guanaba Rural Fire Brigade

Member

Clagiraba Rural Fire Brigade

OTHER BUSHFIRE RELATED COURSES AND TRAINING

I.C.S./AIIMS (40 hr. course) in Incident Command Systems

Certificate 4 (Workplace Training and Assessment)

RFSQ Level 1

RFSQ Level 2 (Officer)

RFSQ Fire Management 1

RFSQ Crew Leader

Certificate II in Public Safety (Firefighting Operations)

Fire Weather 1

QELA Expert Witness Workshop 2020

BUSHFIRE RELATED AWARDS

National Planning Award State Planning Award

Planning Institute of Australia

Gold Coast Bushfire Management Strategy

(Co-Initiator and Member of Preparation Committee)

Australian Government

National Medal

Long and Distinguished Service to Fire fighting

Queensland Fire and Rescue Service
Diligent and Ethical Service Medal + Clasp

Service to Fire fighting

Queensland Government

Australia Day Medallion Services to Rural Fire Fighting

Queensland Government

Year of the Volunteer Medallion

Services to Fire fighting

UDIA

Best Consultancy Team Award in 2007.

SERVICES OFFERED

Bushfire management Reports

Bushfire Safety Engineering

Bushfire Planning and Design

Bushfire Hazard Assessment

Alternative Solutions

Expert Witnessing

(See Planning and Environment Court of Queensland

Determination

File No. BD 624 of 2005 sections 28 to 35)

Continuing Professional Development Lectures

Tertiary Education Lectures and Tutorials

Town Planning Bushfire Codes for Local Authorities

Bushfire Burn Planning

General consultancy relating to all aspects of Bushfire