Appendix L
Bushfire Mitigation Report

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

PREPARED BY
ELDON BOTTCHER ARCHITECT PTY LTD
145 VARSITY PARADE
VARSITY LAKES
PH 07 55920082
EMAIL bushfires@eb-a.com.au
21/08/2024

BRONZE MEMBER
Fire Protection Association Australia

Member Australian Institute of Architects

TABLE OF CONTENTS

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) A maximum time of 5 years from date of preparation.
b) The currency of the legislation referred to in Section 1 Report Brief
c) Changes to any legislation generally that may impact on the report outcomes.
d) Changes to vegetation, both on and off site, which may impact on the results of this report
e) Any other changes that may impact on the report in any manner.

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,
- SPP 07/2017.
- Queensland Planning Act 2016
- "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
- Queensland Bushfire Plan published by Queensland Government prepared by QFES.
- Australian Standard AS3959,
- 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
2511390m^2

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

REGIONAL ECOSYSTEM	&	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 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	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

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

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 Loads (Qld Gov.)
2.4.3. Land slope Downslope
9 degrees

Distance of building from Predominate vegetation class (m) (Vegetation Management Zone)	**Primary Bushfire Attack Level**
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. FDI 55
2.4.5. Vegetation Classification Site Specific Fuel Loads (Qld Gov.)
2.4.6. Land slope Downslope
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 55
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.qra.qld.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. No occupation until compliance with Standard and Management Report	Regular mowing and maintenance of the vegetation management areas as set out in this 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 Guidelines (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.qra.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. AIFireE
Architect
BPAD-L3 Practitioner

BPAD Bushfire Planning & Design Accredited Practitioner Level 3

APPENDIX 5.1
FORM 15

Form 15 Compliance certificate for building design or specification

Queensland Government

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.

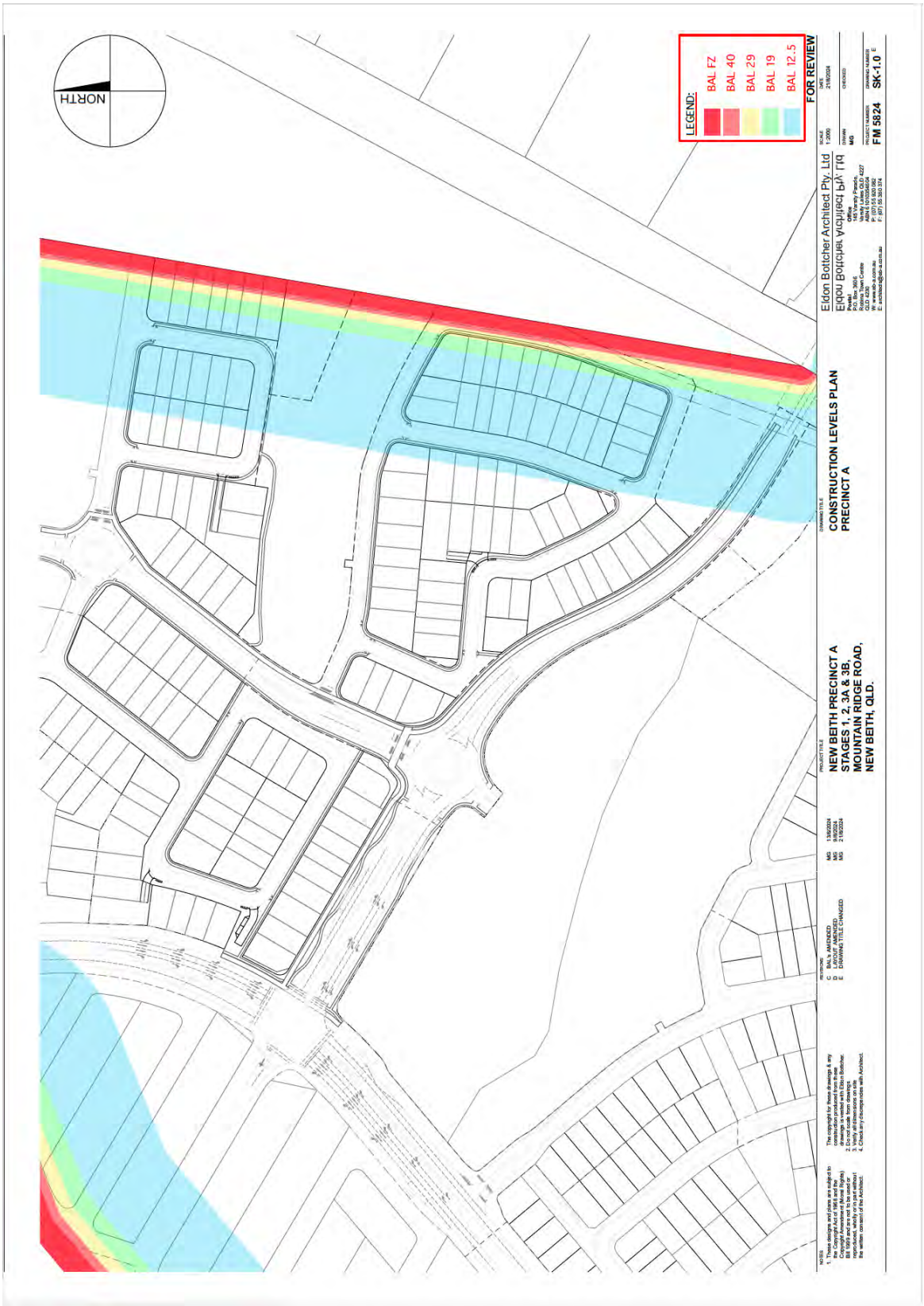
1. Property description This section need only be completed if details of street address and property description are applicable. E.g., in the case of (standard/generic) pool design/shell manufacture and/or patio and carport systems this section may not be applicable. The description must identify all 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

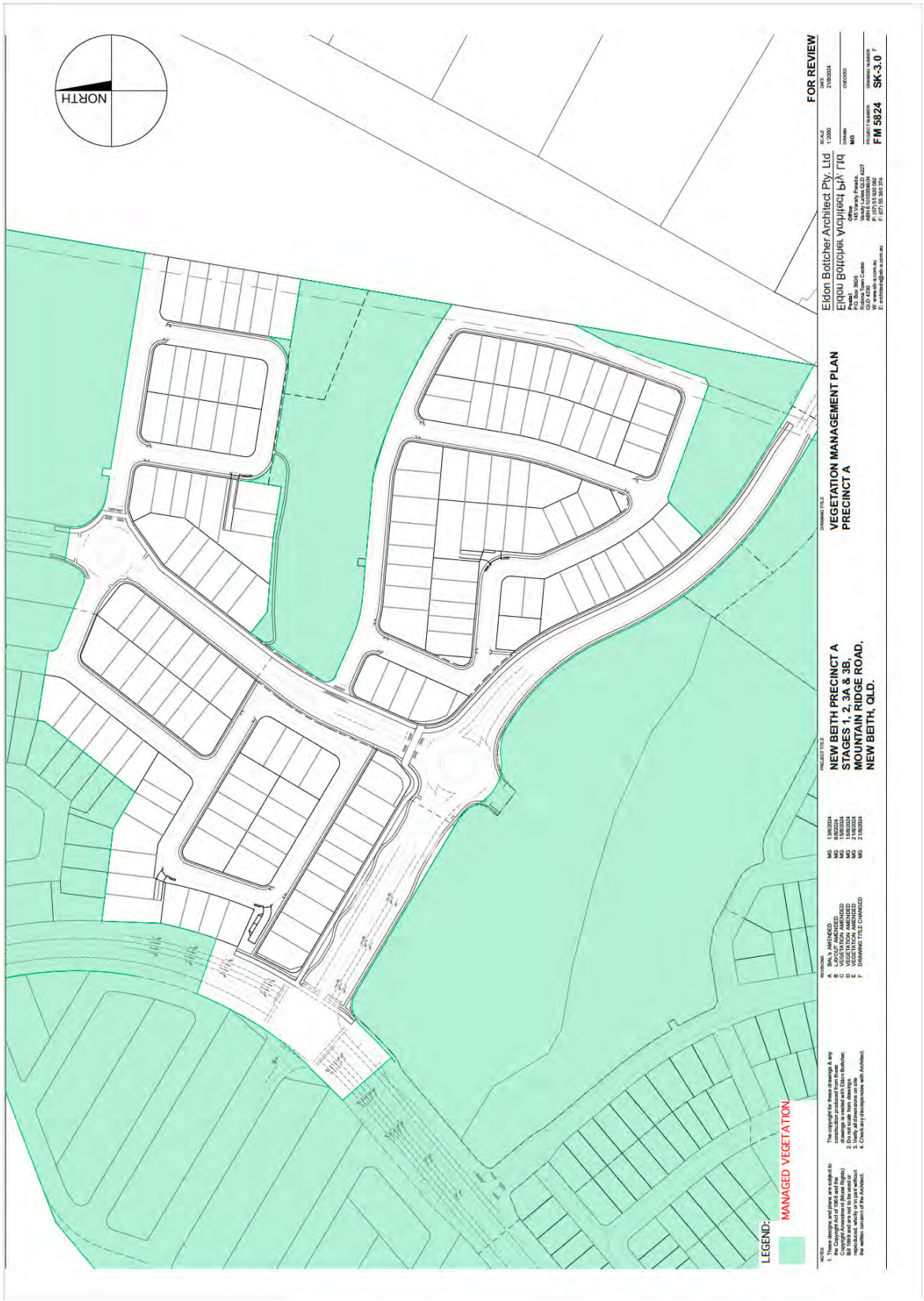
5. Building certifier reference number and building development application number	Building certifier reference number Building development application number *(if available)* Not Available
6. Appointed Competent person details. Under Part 6 of the Building Regulation a person must be assessed as a competent for the type of work (design - specification) by the relevant building certifier.	Name *(in full)* Eldon John Bottcher Company name *(if applicable)* **Eldon Bottcher Architect Pty Ltd** Contact person **Eldon Bottcher** 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)* ……. Licence or registration number *(if applicable)* Reg Architect Qld 1325 FPA Australia BPAD Level 3 practitioner 16935
7. Signature of appointed competent person This certificate must be signed by the individual assessed and appointed by the building certifier as competent to give design-specification help.	**Signature** **Date** 21 August 24 *E J Bottcher* ……

LOCAL GOVERNMENT USE ONLY

Date received		**Reference Number/s**	

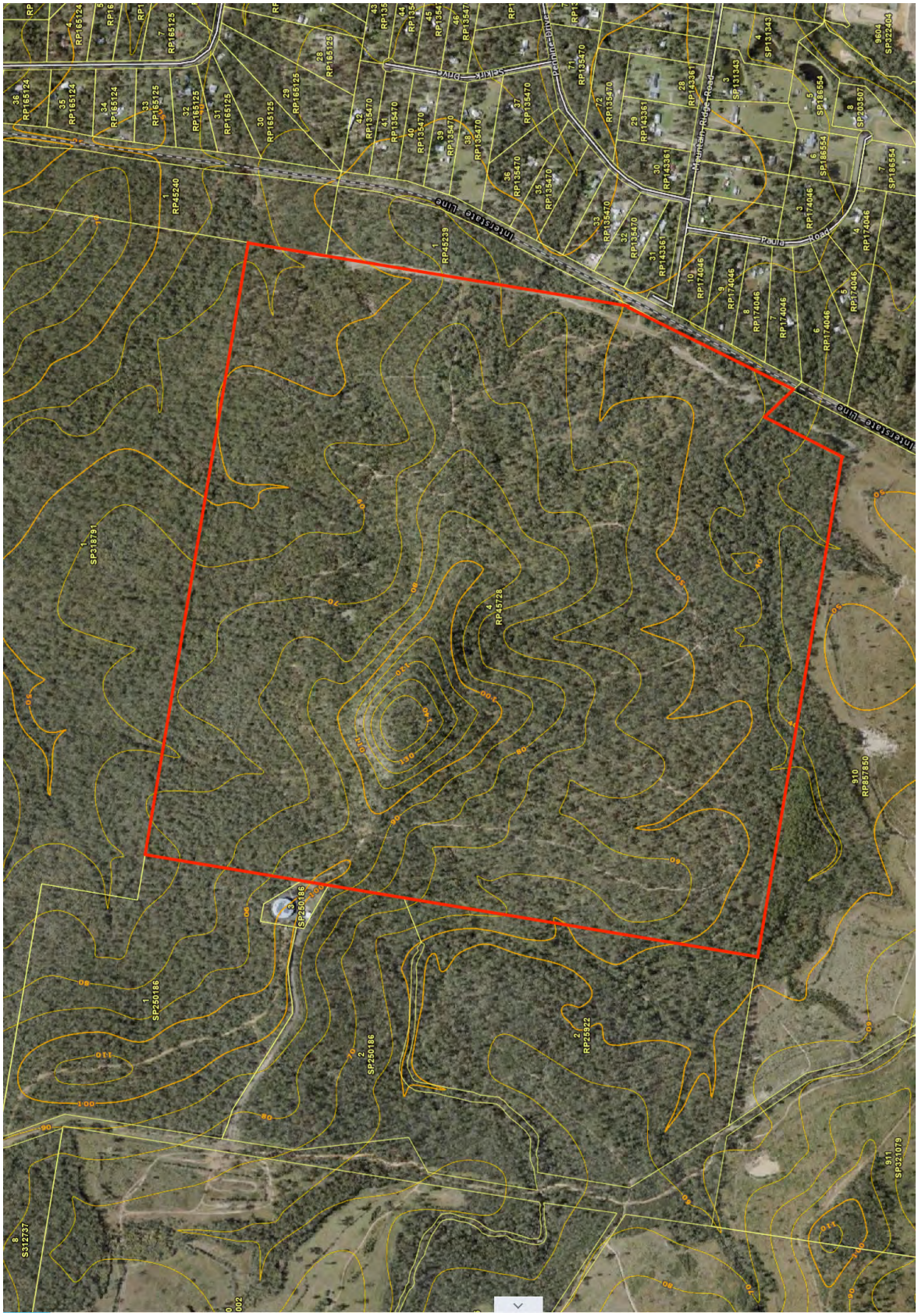
APPENDIX 5.2
SITE PLANS


NORTH
LEGEND:
BAL FZ
BAL 40
BAL 29
BAL 19
BAL 12.5
FOR REVIEW
CONSTRUCTION LEVELS PLAN
PRECINCT A
NEW BEITH PRECINCT A
STAGES 1, 2, 3A & 3B,
MOUNTAIN RIDGE ROAD,
NEW BEITH, QLD.
Eldon Bottcher Architect Pty. Ltd
FM 5824
SK-1.0

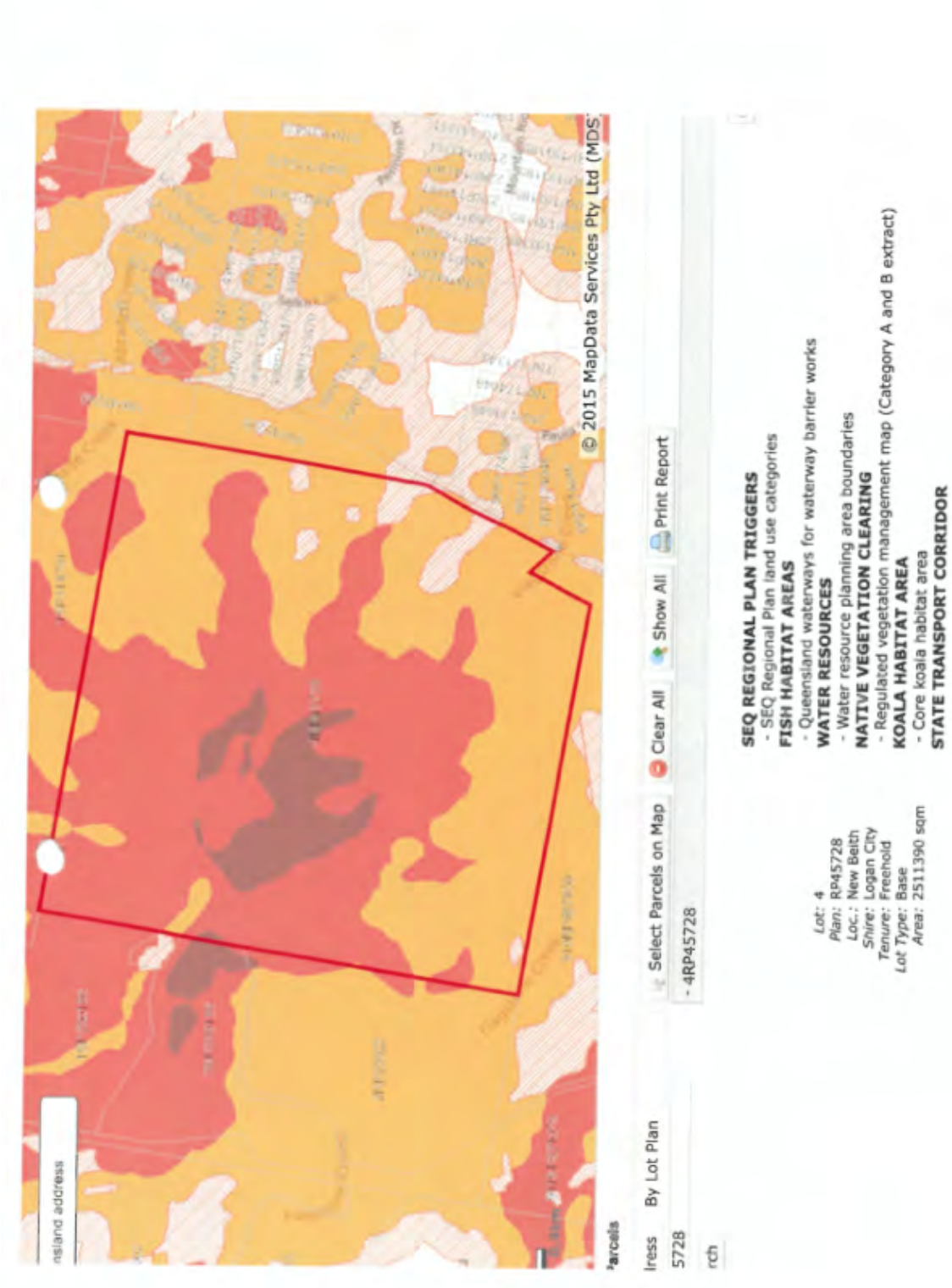

NORTH
LEGEND:
MANAGED VEGETATION
NEW BEITH PRECINCT A
STAGES 1, 2, 3A & 3B,
MOUNTAIN RIDGE ROAD,
NEW BEITH, QLD.
VEGETATION MANAGEMENT PLAN
PRECINCT A
FOR REVIEW
Eldon Bottcher Architect Pty. Ltd
FM 5824
SK-3.0

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

BUSHFIRE CONSTRUCTION STANDARD (BAL) ASSESSMENT

ELDON BOTTCHER ARCHITECT PTY LTD
145 VARSITY PARADE
VARSITY LAKES
QLD 4227
PH 0755920082
E architects@eb-a.com.au

THIS ASSESSMENT USES AS 3959 METHOD 2

PROJECT	**PROPOSED RESIDENCES**	
SITE ADDRESS	**MOUNTAIN RIDGE ROAD NEW BEITH**	
	TRANSECTS 1, 2 & 3 FUEL LOADS QLD GOVERNMENT METHODOLOGY	
INPUTS		
FDI		55
VEGETATION TYPE	SEE TABLE	Site Specific Fuel Loads
TOTAL FUEL LOAD		20.6 tonnes/ha
SLOPE UNDER VEGETATION		-15 degrees
SLOPE BETWEEN VEGETATION AND BUILDING		-15 degrees
FLAME WIDTH		100 m
ELEVATION OF RECEIVER		3.4 m
DISTANCE BETWEEN VEGETATION AND BUILDING		5.4 m
RESULTS		
RADIANT HEAT		38.82 kw/m²
FLAME LENGTH		5.44 m
RATE OF SPREAD		0.45 km/hr
ATMOSPHERIC TRANSMISSIVITY		89%
PEAK ELEVATION OF RECEIVER		3.4 m
FLAME ANGLE		46 degrees
CONSTRUCTION LEVEL REQUIRED		**BAL-40 BAL**

ELDON BOTTCHER ARCHITECT PTY LTD (C) 22/4/22 1 OF 1

BUSHFIRE CONSTRUCTION STANDARD (BAL) ASSESSMENT

ELDON BOTTCHER ARCHITECT PTY LTD
145 VARSITY PARADE
VARSITY LAKES
QLD. 4227
PH 0755920062
E architects@eb-a.com.au

THIS ASSESSMENT USES AS 3959 METHOD 2

PROJECT	**PROPOSED RESIDENCES**	
SITE ADDRESS	**MOUNTAIN RIDGE ROAD NEW BEITH**	
	TRANSECTS 1, 2 & 3 FUEL LOADS QLD GOVERNMENT METHODOLOGY	
INPUTS		
FDI		55
VEGETATION TYPE	SEE TABLE	Site Specific Fuel Loads
TOTAL FUEL LOAD		20.8 tonnes/ha
SLOPE UNDER VEGETATION		-15 degrees
SLOPE BETWEEN VEGETATION AND BUILDING		-15 degrees
FLAME WIDTH		100 m
ELEVATION OF RECEIVER		4 m
DISTANCE BETWEEN VEGETATION AND BUILDING		7.1 m
RESULTS		
RADIANT HEAT		28.86 kw/m²
FLAME LENGTH		5.44 m
RATE OF SPREAD		0.45 km/hr
ATMOSPHERIC TRANSMISSIVITY		88%
PEAK ELEVATION OF RECEIVER		4 m
FLAME ANGLE		53 degrees
CONSTRUCTION LEVEL REQUIRED		BAL – 29 BAL

ELDON BOTTCHER ARCHITECT PTY LTD (C) 22/4/22 1 OF 1

BUSHFIRE CONSTRUCTION STANDARD (BAL) ASSESSMENT

ELDON BOTTCHER ARCHITECT PTY LTD
145 VARSITY PARADE
VARSITY LAKES
QLD 4227
PH 0755920082
E architects@eb-a.com.au

THIS ASSESSMENT USES AS 3959 METHOD 2

PROJECT	**PROPOSED RESIDENCES**	
SITE ADDRESS	**MOUNTAIN RIDGE ROAD NEW BEITH**	
	TRANSECTS 1, 2 & 3 FUEL LOADS QLD GOVERNMENT METHODOLOGY	
INPUTS		
FDI		65
VEGETATION TYPE	SEE TABLE	Site Specific Fuel Loads
TOTAL FUEL LOAD		20.8 tonnes/ha
SLOPE UNDER VEGETATION		-15 degrees
SLOPE BETWEEN VEGETATION AND BUILDING		-15 degrees
FLAME WIDTH		100 m
ELEVATION OF RECEIVER		5.1 m
DISTANCE BETWEEN VEGETATION AND BUILDING		**10.4** m
RESULTS		
RADIANT HEAT		18.95 kw/m²
FLAME LENGTH		5.44 m
RATE OF SPREAD		0.45 km/hr
ATMOSPHERIC TRANSMISSIVITY		87%
PEAK ELEVATION OF RECEIVER		5.1 m
FLAME ANGLE		60 degrees
CONSTRUCTION LEVEL REQUIRED		**BAL-19 BAL**

ELDON BOTTCHER ARCHITECT PTY LTD (C) 22/4/22 1 OF 1

BUSHFIRE CONSTRUCTION STANDARD (BAL) ASSESSMENT

ELDON BOTTCHER ARCHITECT PTY LTD
145 VARSITY PARADE PH 0755920082
VARSITY LAKES E architects@eb-a.com.au
QLD 4227

THIS ASSESSMENT USES AS 3959 METHOD 2

PROJECT	**PROPOSED RESIDENCES**	
SITE ADDRESS	**MOUNTAIN RIDGE ROAD NEW BEITH**	
	TRANSECTS 1, 2 & 3 FUEL LOADS QLD GOVERNMENT METHODOLOGY	
INPUTS		
FDI		55
VEGETATION TYPE	SEE TABLE	Site Specific Fuel Loads
TOTAL FUEL LOAD		20.8 tonnes/ha
SLOPE UNDER VEGETATION		-15 degrees
SLOPE BETWEEN VEGETATION AND BUILDING		-15 degrees
FLAME WIDTH		100 m
ELEVATION 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
RATE OF SPREAD		0.45 km/hr
ATMOSPHERIC TRANSMISSIVITY		85%
PEAK ELEVATION OF RECEIVER		6.5 m
FLAME ANGLE		65 degrees
CONSTRUCTION LEVEL REQUIRED		**BAL-12.5 BAL**

ELDON BOTTCHER ARCHITECT PTY LTD (C) 22/4/22 1 OF 1

BUSHFIRE CONSTRUCTION STANDARD (BAL) ASSESSMENT

ELDON BOTTCHER ARCHITECT PTY LTD
145 VARSITY PARADE
VARSITY LAKES
QLD 4327
PH 0755920082
E architects@eb-a.com.au

THIS ASSESSMENT USES AS 3959 METHOD 2

PROJECT	**PROPOSED RESIDENCES**	
SITE ADDRESS	**MOUNTAIN RIDGE ROAD NEW BEITH**	
	TRANSECT 4 FUEL LOADS QLD GOVERNMENT METHODOLOGY	
INPUTS		
FDI		55
VEGETATION TYPE	SEE TABLE	Site Specific Fuel Loads
TOTAL FUEL LOAD		20.8 tonnes/ha
SLOPE UNDER VEGETATION		-12 degrees
SLOPE BETWEEN VEGETATION AND BUILDING		-12 degrees
FLAME WIDTH		100 m
ELEVATION OF RECEIVER		3.4 m
DISTANCE BETWEEN VEGETATION AND BUILDING		5.8 m
RESULTS		
RADIANT HEAT		39.51 kw/m²
FLAME LENGTH		6.11 m
RATE OF SPREAD		0.66 km/hr
ATMOSPHERIC TRANSMISSIMTY		89%
PEAK ELEVATION OF RECEIVER		3.4 m
FLAME ANGLE		46 degrees
CONSTRUCTION LEVEL REQUIRED		BAL-40 BAL

ELDON BOTTCHER ARCHITECT PTY LTD (C) 22/4/22 1 OF 1

BUSHFIRE CONSTRUCTION STANDARD (BAL) ASSESSMENT

ELDON BOTTCHER ARCHITECT PTY LTD
145 VARSITY PARADE
VARSITY LAKES
QLD. 4227
PH 0755920082
E architects@eb-a.com.au

THIS ASSESSMENT USES AS 3959 METHOD 2

PROJECT	**PROPOSED RESIDENCES**	
SITE ADDRESS	**MOUNTAIN RIDGE ROAD NEW BEITH**	
	TRANSECT 4 FUEL LOADS QLD GOVERNMENT METHODOLOGY	
INPUTS		
FDI		55
VEGETATION TYPE	SEE TABLE	Site Specific Fuel Loads
TOTAL FUEL LOAD		20.8 tonnes/ha
SLOPE UNDER VEGETATION		-12 degrees
SLOPE BETWEEN VEGETATION AND BUILDING		-12 degrees
FLAME WIDTH		100 m
ELEVATION OF RECEIVER		4.16 m
DISTANCE BETWEEN VEGETATION AND BUILDING		7.8 m
RESULTS		
RADIANT HEAT		28.69 kw/m²
FLAME LENGTH		6.11 m
RATE OF SPREAD		0.66 km/hr
ATMOSPHERIC TRANSMISSIVITY		88%
PEAK ELEVATION OF RECEIVER		4.16 m
FLAME ANGLE		55 degrees
CONSTRUCTION LEVEL REQUIRED		**BAL-29 BAL**

ELDON BOTTCHER ARCHITECT PTY LTD (C) 22/4/22 1 OF 1

BUSHFIRE CONSTRUCTION STANDARD (BAL) ASSESSMENT

ELDON BOTTCHER ARCHITECT PTY LTD
145 VARSITY PARADE
VARSITY LAKES
QLD. 4227
PH 0755920082
E architects@eb-a.com.au

THIS ASSESSMENT USES AS 3959 METHOD 2

PROJECT	**PROPOSED RESIDENCES**	
SITE ADDRESS	**MOUNTAIN RIDGE ROAD NEW BEITH**	
	TRANSECT 4 FUEL LOADS QLD GOVERNMENT METHODOLOGY	
INPUTS		
FDI		55
VEGETATION TYPE	SEE TABLE	Site Specific Fuel Loads
TOTAL FUEL LOAD		20.8 tonnes/ha
SLOPE UNDER VEGETATION		-12 degrees
SLOPE BETWEEN VEGETATION AND BUILDING		-12 degrees
FLAME WIDTH		100 m
ELEVATION OF RECEIVER		5.1 m
DISTANCE BETWEEN VEGETATION AND BUILDING		**11.4** m
RESULTS		
RADIANT HEAT		18.90 kw/m²
FLAME LENGTH		6.11 m
RATE OF SPREAD		0.56 km/hr
ATMOSPHERIC TRANSMISSIVITY		86%
PEAK ELEVATION OF RECEIVER		5.1 m
FLAME ANGLE		63 degrees
CONSTRUCTION LEVEL REQUIRED		**BAL-19 BAL**

ELDON BOTTCHER ARCHITECT PTY LTD (C) 22/4/22 1 OF 1

BUSHFIRE CONSTRUCTION STANDARD (BAL) ASSESSMENT

ELDON BOTTCHER ARCHITECT PTY LTD
145 VARSITY PARADE
VARSITY LAKES
QLD 4327
PH 0755920082
E architects@eb-a.com.au

THIS ASSESSMENT USES AS 3959 METHOD 2

PROJECT	**PROPOSED RESIDENCES**	
SITE ADDRESS	**MOUNTAIN RIDGE ROAD** **NEW BEITH**	
	TRANSECT 4 **FUEL LOADS QLD GOVERNMENT METHODOLOGY**	
INPUTS		
FDI		55
VEGETATION TYPE	SEE TABLE	Site Specific Fuel Loads
TOTAL FUEL LOAD		20.6 tonnes/ha
SLOPE UNDER VEGETATION		-12 degrees
SLOPE BETWEEN VEGETATION AND BUILDING		-12 degrees
FLAME WIDTH		100 m
ELEVATION OF RECEIVER		6.3 m
DISTANCE BETWEEN VEGETATION AND BUILDING		16.5 m
RESULTS		
RADIANT HEAT		12.50 kw/m²
FLAME LENGTH		6.11 m
RATE OF SPREAD		0.56 km/hr
ATMOSPHERIC TRANSMISSIVITY		85%
PEAK ELEVATION OF RECEIVER		6.3 m
FLAME ANGLE		67 degrees
CONSTRUCTION LEVEL REQUIRED		**BAL-12.5 BAL**

ELDON BOTTCHER ARCHITECT PTY LTD (C) 22/4/22 1 OF 1

BUSHFIRE CONSTRUCTION STANDARD (BAL) ASSESSMENT

ELDON BOTTCHER ARCHITECT PTY LTD
145 VARSITY PARADE
VARSITY LAKES
QLD 4227
PH 0755820082
E architects@eb-a.com.au

THIS ASSESSMENT USES AS 3959 METHOD 2

PROJECT	**PROPOSED RESIDENCES**	
SITE ADDRESS	**MOUNTAIN RIDGE ROAD NEW BEITH**	
	TRANSECT 5 FUEL LOADS QLD GOVERNMENT METHODOLOGY	
INPUTS		
FDI		55
VEGETATION TYPE	SEE TABLE	Site Specific Fuel Loads
TOTAL FUEL LOAD		20.8 tonnes/ha
SLOPE UNDER VEGETATION		9 degrees
SLOPE BETWEEN VEGETATION AND BUILDING		9 degrees
FLAME WIDTH		100 m
ELEVATION OF RECEIVER		5.5 m
DISTANCE BETWEEN VEGETATION AND BUILDING		14 m
RESULTS		
RADIANT HEAT		39.03 kw/m²
FLAME LENGTH		17.90 m
RATE OF SPREAD		2.37 km/hr
ATMOSPHERIC TRANSMISSIVITY		87%
PEAK ELEVATION OF RECEIVER		5.5 m
FLAME ANGLE		59 degrees
CONSTRUCTION LEVEL REQUIRED		**BAL-40 BAL**

ELDON BOTTCHER ARCHITECT PTY LTD (C) 22/4/22 1 OF 1

BUSHFIRE CONSTRUCTION STANDARD (BAL) ASSESSMENT

ELDON BOTTCHER ARCHITECT PTY LTD
145 VARSITY PARADE
VARSITY LAKES
QLD. 4227
PH 0755920082
E architects@eb-a.com.au

THIS ASSESSMENT USES AS 3959 METHOD 2

PROJECT	**PROPOSED RESIDENCES**	
SITE ADDRESS	**MOUNTAIN RIDGE ROAD NEW BEITH**	
	TRANSECT 5 FUEL LOADS QLD GOVERNMENT METHODOLOGY	
INPUTS		
FDI		55
VEGETATION TYPE	SEE TABLE	Site Specific Fuel Loads
TOTAL FUEL LOAD		20.8 tonnes/ha
SLOPE UNDER VEGETATION		9 degrees
SLOPE BETWEEN VEGETATION AND BUILDING		8 degrees
FLAME WIDTH		100 m
ELEVATION OF RECEIVER		5.4 m
DISTANCE BETWEEN VEGETATION AND BUILDING		18.5 m
RESULTS		
RADIANT HEAT		29.01 kw/m^2
FLAME LENGTH		17.90 m
RATE OF SPREAD		2.37 km/hr
ATMOSPHERIC TRANSMISSIVITY		85%
PEAK ELEVATION OF RECEIVER		5.4 m
FLAME ANGLE		69 degrees
CONSTRUCTION LEVEL REQUIRED		**BAL-29 BAL**

ELDON BOTTCHER ARCHITECT PTY LTD (C) 22/4/22 1 OF 1

BUSHFIRE CONSTRUCTION STANDARD (BAL) ASSESSMENT

ELDON BOTTCHER ARCHITECT PTY LTD
145 VARSITY PARADE
VARSITY LAKES
QLD. 4227
PH 0755920082
E architects@eb-a.com.au

THIS ASSESSMENT USES AS 3959 METHOD 2

PROJECT	**PROPOSED RESIDENCES**	
SITE ADDRESS	**MOUNTAIN RIDGE ROAD NEW BEITH**	
	TRANSECT 5 FUEL LOADS QLD GOVERNMENT METHODOLOGY	
INPUTS		
FDI		55
VEGETATION TYPE	SEE TABLE	Site Specific Fuel Loads
TOTAL FUEL LOAD		20.6 tonnes/ha
SLOPE UNDER VEGETATION		9 degrees
SLOPE BETWEEN VEGETATION AND BUILDING		0 degrees
FLAME WIDTH		100 m
ELEVATION OF RECEIVER		4.5 m
DISTANCE BETWEEN VEGETATION AND BUILDING		27 m
RESULTS		
RADIANT HEAT		18.99 kw/m²
FLAME LENGTH		17.90 m
RATE OF SPREAD		2.37 km/hr
ATMOSPHERIC TRANSMISSIVITY		82%
PEAK ELEVATION OF RECEIVER		4.5 m
FLAME ANGLE		78 degrees
CONSTRUCTION LEVEL REQUIRED		**BAL—19 BAL**

ELDON BOTTCHER ARCHITECT PTY LTD (C) 22/4/22 1 OF 1

BUSHFIRE CONSTRUCTION STANDARD (BAL) ASSESSMENT

ELDON BOTTCHER ARCHITECT PTY LTD
145 VARSITY PARADE
VARSITY LAKES
QLD, 4227
PH 0755920082
E architects@eb-a.com.au

THIS ASSESSMENT USES AS 3959 METHOD 2

PROJECT	**PROPOSED RESIDENCES**	
SITE ADDRESS	**MOUNTAIN RIDGE ROAD NEW BEITH**	
	TRANSECT 5 FUEL LOADS QLD GOVERNMENT METHODOLOGY	
INPUTS		
FDI		50
VEGETATION TYPE	SEE TABLE	Site Specific Fuel Loads
TOTAL FUEL LOAD		20.6 tonnes/ha
SLOPE UNDER VEGETATION		9 degrees
SLOPE BETWEEN VEGETATION AND BUILDING		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 ELEVATION OF RECEIVER		2.8 m
FLAME ANGLE		62 degrees
CONSTRUCTION LEVEL REQUIRED		BAL – 12.5 BAL

ELDON BOTTCHER ARCHITECT PTY LTD (C) 22/4/22 (DR)

BUSHFIRE CONSTRUCTION STANDARD (BAL) ASSESSMENT

ELDON BOTTCHER ARCHITECT PTY LTD
145 VARSITY PARADE PH 0755920062
VARSITY LAKES E architects@eb-a.com.au
QLD 4227

THIS ASSESSMENT USES AS 3959 METHOD 2

PROJECT	**PROPOSED RESIDENCES**	
SITE ADDRESS	**MOUNTAIN RIDGE ROAD NEW BEITH**	
	TRANSECTS 6 & 7 FUEL LOADS QLD GOVERNMENT METHODOLOGY	
INPUTS		
FDI		55
VEGETATION TYPE	SEE TABLE	Site Specific Fuel Loads
TOTAL FUEL LOAD		18.44 tonnes/ha
SLOPE UNDER VEGETATION		4 degrees
SLOPE BETWEEN VEGETATION AND BUILDING		4 degrees
FLAME WIDTH		100 m
ELEVATION OF RECEIVER		4.1 m
DISTANCE BETWEEN VEGETATION 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 TRANSMISSIVITY		68%
PEAK ELEVATION OF RECEIVER		4.1 m
FLAME ANGLE		55 degrees
CONSTRUCTION LEVEL REQUIRED		**BAL-40 BAL**

ELDON BOTTCHER ARCHITECT PTY LTD (C) 22/4/22 1 OF 1

BUSHFIRE CONSTRUCTION STANDARD (BAL) ASSESSMENT

ELDON BOTTCHER ARCHITECT PTY LTD
145 VARSITY PARADE PH 0755920082
VARSITY LAKES E architects@eb-a.com.au
QLD. 4227

THIS ASSESSMENT USES AS 3959 METHOD 2

PROJECT	**PROPOSED RESIDENCES**	
SITE ADDRESS	**MOUNTAIN RIDGE ROAD NEW BEITH**	
	TRANSECTS 6 & 7 FUEL LOADS QLD GOVERNMENT METHODOLOGY	
INPUTS		
FDI		55
VEGETATION TYPE	SEE TABLE	Site Specific Fuel Loads
TOTAL FUEL LOAD		18.44 tonnes/ha
SLOPE UNDER VEGETATION		4 degrees
SLOPE BETWEEN VEGETATION AND BUILDING		4 degrees
FLAME WIDTH		100 m
ELEVATION OF RECEIVER		4.4 m
DISTANCE BETWEEN VEGETATION AND BUILDING		12.6 m
RESULTS		
RADIANT HEAT		28.91 kw/m^2
FLAME LENGTH		11.64 m
RATE OF SPREAD		1.45 km/hr
ATMOSPHERIC TRANSMISSIVITY		86%
PEAK ELEVATION OF RECEIVER		4.4 m
FLAME ANGLE		67 degrees
CONSTRUCTION LEVEL REQUIRED		**BAL-29 BAL**

ELDON BOTTCHER ARCHITECT PTY LTD (C) 22/4/22 1 OF 1

BUSHFIRE CONSTRUCTION STANDARD (BAL) ASSESSMENT

ELDON BOTTCHER ARCHITECT PTY LTD
145 VARSITY PARADE
VARSITY LAKES
QLD. 4227
PH 0755920082
E architects@eb-a.com.au

THIS ASSESSMENT USES AS 3959 METHOD 2

PROJECT	**PROPOSED RESIDENCES**	
SITE ADDRESS	**MOUNTAIN RIDGE ROAD** **NEW BEITH**	
	TRANSECTS 6 & 7 **FUEL LOADS QLD GOVERNMENT METHODOLOGY**	
INPUTS		
FDI		55
VEGETATION TYPE	SEE TABLE	Site Specific Fuel Loads
TOTAL FUEL LOAD		18.44 tonnes/ha
SLOPE UNDER VEGETATION		4 degrees
SLOPE BETWEEN VEGETATION AND BUILDING		4 degrees
FLAME WIDTH		100 m
ELEVATION OF RECEIVER		4.4 m
DISTANCE BETWEEN VEGETATION AND BUILDING		12.6 m
RESULTS		
RADIANT HEAT		28.91 kw/m^2
FLAME LENGTH		11.64 m
RATE OF SPREAD		1.45 km/hr
ATMOSPHERIC TRANSMISSIVITY		86%
PEAK ELEVATION OF RECEIVER		4.4 m
FLAME ANGLE		67 degrees
CONSTRUCTION LEVEL REQUIRED		**BAL-29 BAL**

ELDON BOTTCHER ARCHITECT PTY LTD (C) 22/4/22 1 OF 1

BUSHFIRE CONSTRUCTION STANDARD (BAL) ASSESSMENT

ELDON BOTTCHER ARCHITECT PTY LTD
145 VARSITY PARADE
VARSITY LAKES
QLD. 4227
PH 0755920082
E architects@eb-a.com.au

THIS ASSESSMENT USES AS 3959 METHOD 2

PROJECT	**PROPOSED RESIDENCES**	
SITE ADDRESS	**MOUNTAIN RIDGE ROAD NEW BEITH**	
	TRANSECTS 6 & 7 FUEL LOADS QLD GOVERNMENT METHODOLOGY	
INPUTS		
FDI		55
VEGETATION TYPE	SEE TABLE	Site Specific Fuel Loads
TOTAL FUEL LOAD		18.44 tonnes/ha
SLOPE UNDER VEGETATION		4 degrees
SLOPE BETWEEN VEGETATION AND BUILDING		4 degrees
FLAME WIDTH		100 m
ELEVATION OF RECEIVER		4.3 m
DISTANCE BETWEEN VEGETATION AND BUILDING		**18.9** m
RESULTS		
RADIANT HEAT		18.96 kw/m²
FLAME LENGTH		11.64 m
RATE OF SPREAD		1.45 km/hr
ATMOSPHERIC TRANSMISSIVITY		84%
PEAK ELEVATION OF RECEIVER		4.3 m
FLAME ANGLE		75 degrees
CONSTRUCTION LEVEL REQUIRED		**BAL-19 BAL**

ELDON BOTTCHER ARCHITECT PTY LTD (C) 22/4/22 1 OF 1

BUSHFIRE CONSTRUCTION STANDARD (BAL) ASSESSMENT

ELDON BOTTCHER ARCHITECT PTY LTD
145 VARSITY PARADE
VARSITY LAKES
QLD. 4227
PH 0755920082
E architects@eb-a.com.au

THIS ASSESSMENT USES AS 3959 METHOD 2

PROJECT	**PROPOSED RESIDENCES**	
SITE ADDRESS	**MOUNTAIN RIDGE ROAD NEW BEITH**	
	TRANSECTS 6 & 7 FUEL LOADS QLD GOVERNMENT METHODOLOGY	
INPUTS		
FDI		55
VEGETATION TYPE	SEE TABLE	Site Specific Fuel Loads
TOTAL FUEL LOAD		18.44 tonnes/ha
SLOPE UNDER VEGETATION		4 degrees
SLOPE BETWEEN VEGETATION AND BUILDING		4 degrees
FLAME WIDTH		100 m
ELEVATION OF RECEIVER		3.8 m
DISTANCE BETWEEN VEGETATION 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 REQUIRED		**BAL-12.5 BAL**

ELDON BOTTCHER ARCHITECT PTY LTD (C) 22/4/22 1 OF 1

BUSHFIRE CONSTRUCTION STANDARD (BAL) ASSESSMENT

ELDON BOTTCHER ARCHITECT PTY LTD
145 VARSITY PARADE PH 0755920082
VARSITY LAKES E architects@eb-a.com.au
QLD 4227

THIS ASSESSMENT USES AS 3959 METHOD 2

PROJECT	**PROPOSED RESIDENCES**	
SITE ADDRESS	**MOUNTAIN RIDGE ROAD NEW BEITH**	
	TRANSECTS 8	
	FUEL LOADS QLD GOVERNMENT METHODOLOGY	
INPUTS		
FDI		55
VEGETATION TYPE	SEE TABLE	Site Specific Fuel Loads
TOTAL FUEL LOAD		20.8 tonnes/ha
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
RESULTS		
RADIANT HEAT		39.90 kw/m²
FLAME LENGTH		21.45 m
RATE OF SPREAD		2.92 km/hr
ATMOSPHERIC TRANSMISSIVITY		86%
PEAK ELEVATION OF RECEIVER		5.9 m
FLAME ANGLE		60 degrees
CONSTRUCTION LEVEL REQUIRED		**BAL-40 BAL**

ELDON BOTTCHER ARCHITECT PTY LTD (C) 22/4/22 1 OF 1

BUSHFIRE CONSTRUCTION STANDARD (BAL) ASSESSMENT

ELDON BOTTCHER ARCHITECT PTY LTD
145 VARSITY PARADE
VARSITY LAKES
QLD. 4227
PH 0755920082
E architects@eb-a.com.au

THIS ASSESSMENT USES AS 3959 METHOD 2

PROJECT	**PROPOSED RESIDENCES**	
SITE ADDRESS	**MOUNTAIN RIDGE ROAD NEW BEITH**	
	TRANSECTS 8 FUEL LOADS QLD GOVERNMENT METHODOLOGY	
INPUTS		
FDI		85
VEGETATION TYPE	SEE TABLE	Site Specific Fuel Loads
TOTAL FUEL LOAD		20.8 tonnes/ha
SLOPE UNDER VEGETATION		12 degrees
SLOPE BETWEEN VEGETATION AND BUILDING		12 degrees
FLAME WIDTH		100 m
ELEVATION OF RECEIVER		4 m
DISTANCE BETWEEN VEGETATION 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 TRANSMISSIVITY		81%
PEAK ELEVATION OF RECEIVER		4 m
FLAME ANGLE		79 degrees
CONSTRUCTION LEVEL REQUIRED		**BAL-19 BAL**

ELDON BOTTCHER ARCHITECT PTY LTD (C) 22/4/22 1 OF 1

BUSHFIRE CONSTRUCTION STANDARD (BAL) ASSESSMENT

ELDON BOTTCHER ARCHITECT PTY LTD
145 VARSITY PARADE PH 0755920082
VARSITY LAKES E architects@eb-a.com.au
QLD 4227

THIS ASSESSMENT USES AS 3959 METHOD 2

PROJECT	**PROPOSED RESIDENCES**	
SITE ADDRESS	**MOUNTAIN RIDGE ROAD NEW BEITH**	
	TRANSECTS 8 FUEL LOADS QLD GOVERNMENT METHODOLOGY	
INPUTS		
FDI		55
VEGETATION TYPE	SEE TABLE	Site Specific Fuel Loads
TOTAL FUEL LOAD		20.8 tonnes/ha
SLOPE UNDER VEGETATION		12 degrees
SLOPE BETWEEN VEGETATION AND BUILDING		12 degrees
FLAME WIDTH		100 m
ELEVATION OF RECEIVER		1.4 m
DISTANCE BETWEEN VEGETATION AND BUILDING		43.3 m
RESULTS		
RADIANT HEAT		12.49 kw/m²
FLAME LENGTH		21.45 m
RATE OF SPREAD		2.92 km/hr
ATMOSPHERIC TRANSMISSIVITY		79%
PEAK ELEVATION OF RECEIVER		1.4 m
FLAME ANGLE		83 degrees
CONSTRUCTION LEVEL REQUIRED		**BAL – 12.5 BAL**

ELDON BOTTCHER ARCHITECT PTY LTD (C) 22/4/22 1 OF 1

RURAL FIRE SERVICE

Queensland Government

State-wide Bushfire Prone Area Mapping

Vegetation Hazard Class Descriptions and Fuel Characteristics – Jan 2017

Vegetation Hazard Class	Potential Fuel Load (t/ha)						Prone Type [1]		Fuel Continuity [2]	
	Surface	Near Surface	Elevated	Bark	Total (Remnant)	Total (Non-Remnant)	Remnant	Non-Remnant	Remnant	Non- Remnant
1.1 *Complex mesophyll to notophyll vine forests*	2.6	0.0	0.0	0.0	2.6	12.0	3	1	2	1
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	1
3.1 *Notophyll vine forest*	4.5	0.0	0.0	0.0	4.5	12.0	3	1	2	1
3.3 *Notophyll vine thicket*	4.4	0.0	0.0	0.0	4.4	12.0	3	1	2	1
4.1 *Notophyll and notophyll palm or vine forest*	4.5	0.0	0.0	0.0	4.5	12.0	3	1	2	1
5.1 *Notophyll to microphyll vine forests*	3.9	0.0	0.0	0.0	3.9	12.0	3	1	2	1
5.2 *Notophyll to microphyll vine forest with sparse overstorey*	3.9	0.0	0.0	0.0	3.9	12.0	3	1	2	1
5.5 *Sedgeland within Notophyll to microphyll vine forests*	3.9	0.0	0.0	0.0	3.9	12.0	3	1	2	1
6.1 *Montane Notophyll vine forest and microphyll fern forest*	3.9	0.0	0.0	0.0	3.9	12.0	3	1	2	1
6.3 *Montane Notophyll vine thicket and microphyll fern thicket*	3.9	0.0	0.0	0.0	3.9	12.0	3	1	2	1
7.1 *Semi-evergreen to deciduous microphyll vine forest*	6.0	0.0	0.0	0.0	6.0	12.0	3	1	2	1
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	1
8.1 *Wet eucalypt tall open forest*	28.0	3.0	2.0	2.0	35.0	35.0	1	1	1	1
8.2 *Wet eucalypt tall woodland*	18.0	3.1	1.7	1.0	23.8	23.8	1	1	1	1
9.1 *Moist to dry eucalypt open forests on coastal lowlands and ranges*	17.5	3.5	2.2	1.0	24.2	24.2	1	1	1	1
9.2 *Moist to dry eucalypt woodland on coastal lowlands and ranges*	11.4	3.5	1.3	1.0	17.2	17.2	1	1	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	1	1
10.1 *Spotted gum dominated open forests*	16.3	3.0	1.5	0.0	20.8	20.8	1	1	1	1
10.2 *Spotted gum dominated woodlands*	14.0	3.0	1.0	0.0	18.0	18.0	1	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	1
12.1 *Dry eucalypt open forest on sandstone and shallow soils*	15.0	3.5	1.5	1.0	21.0	21.0	1	1	1	1
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	1
13.1 *Dry to moist eucalypt open forests on undulating metamorphics and granite*	15.9	3.5	1.4	1.0	21.8	21.8	1	1	1	1

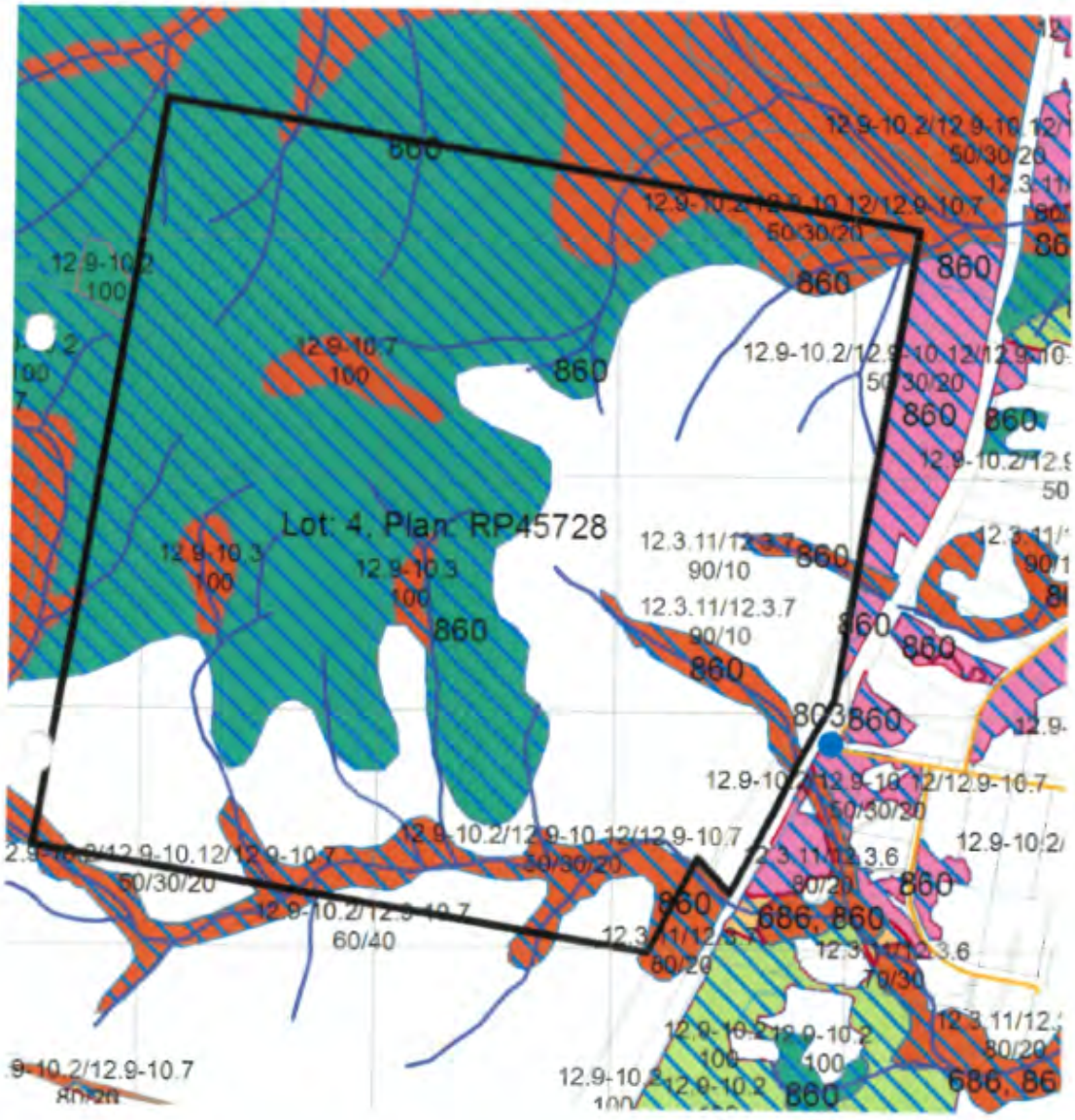
[1] Prone Type: 1 = Bushfire Prone, 2 = Grass Fire Prone, 3 = Low Hazard
[2] Fuel Continuity: 1 = Continuous, 2 = Discontinuous

Vegetation Hazard Class	Potential Fuel Load (t/ha)						Prone Type [1]		Fuel Continuity [2]	
	Surface	Near Surface	Elevated	Bark	Total (Remnant)	Total (Non-Remnant)	Remnant	Non-Remnant	Remnant	Non-Remnant
13.2 *Dry to moist eucalypt woodlands on undulating metamorphics and granite*	9.4	3.4	0.6	1.0	14.4	14.4	1	1	1	1
13.3 *Shrubland associated with dry to moist eucalypt woodlands on undulating terrain*	4.3	2.3	0.9	0.0	7.5	7.5	1	1	1	1
14.1 *Open forest dominated by Darwin stringybark, Melville Island bloodwood or scarlet gum*	22.3	1.4	2.1	2.0	27.8	27.8	1	1	1	1
14.2 *Woodlands dominatrd by Darwin stringybark, Melville Island bloodwood or scarlet gum*	8.4	2.4	0.8	1.0	12.6	12.6	1	1	1	1
14.3 *Shrubland associated with woodlands dominated by Darwin stringybark, Melville Island bloodwood or scarlet gum*	1.1	3.4	3.3	1.0	8.8	8.8	1	1	1	1
14.6 *Sparsely vegetated areas associated with Darwin stringybark, Melville Island bloodwood or scarlet gum*	0.0	0.3	1.3	0.0	1.6	1.6	3	3	2	2
15.1 *Temperate open eucalypt forests*	23.7	0.3	1.8	1.0	26.8	26.8	1	1	1	1
15.2 *Temperate eucalypt woodlands*	10.2	1.8	1.8	0.0	13.8	13.8	1	1	1	1
16.1 *Eucalyptus dominated forest on drainage lines and alluvial plains*	10.0	3.8	1.2	1.0	16.0	16.0	1	1	1	1
16.2 *Eucalyptus dominated woodland on drainage lines and alluvial plains*	7.5	3.6	0.5	0.0	11.6	11.6	1	1	1	1
16.3 *Shrubland associated with Eucalyptus woodlands on drainage lines*	5.8	2.7	0.1	0.0	8.6	8.6	1	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	1
16.5 *Sedgeland associated with Eucalyptus woodlands on drainage lines**	3.9	5.0	3.5	0.0	12.4	12.4	1	1	1	1
16.6 *Sparsely vegetated areas associated with Eucalyptus woodlands on drainage lines*	1.2	2.0	0.0	0.0	3.2	3.2	3	3	2	2
17.1 *Dry open forests dominated by poplar box, silver-leaved ironbark or White's ironbark on sand or depositional plains*	10.6	4.1	0.3	0.0	15.0	15.0	1	1	1	1
17.2 *Dry woodlands dominated by poplar box, silver-leoved ironbark or White's ironbark on sand or depositional plains*	6.0	3.0	0.6	0.0	9.6	9.6	1	1	1	1
18.1 *Dry eucalypt open forests on sand or depositional plains*	10.8	3.4	0.6	0.0	14.8	14.8	1	1	1	1
18.2 *Dry eucalypt woodlands on sand or depositional plains*	7.1	3.3	0.6	0.0	11.0	11.0	1	1	1	1
18.5 *Sedgeland associated with dry eucalypt woodlands on sand or depositional plains*	3.9	3.4	3.5	0.0	10.8	10.8	1	1	1	1
19.2 *Low open eucalyptus woodlands dominated by snappy gum, Cloncurry Box or Normanton box*	4.3	3.0	0.8	1.0	9.1	9.1	1	1	1	1
19.3 *Shrubland associated with low open eucalypt woodlands dominated by snappy gum, Cloncurry Box or Normanton box*	1.7	1.5	1.3	0.0	4.5	4.5	1	1	1	1
19.4 *9Grassland associated with low 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	1

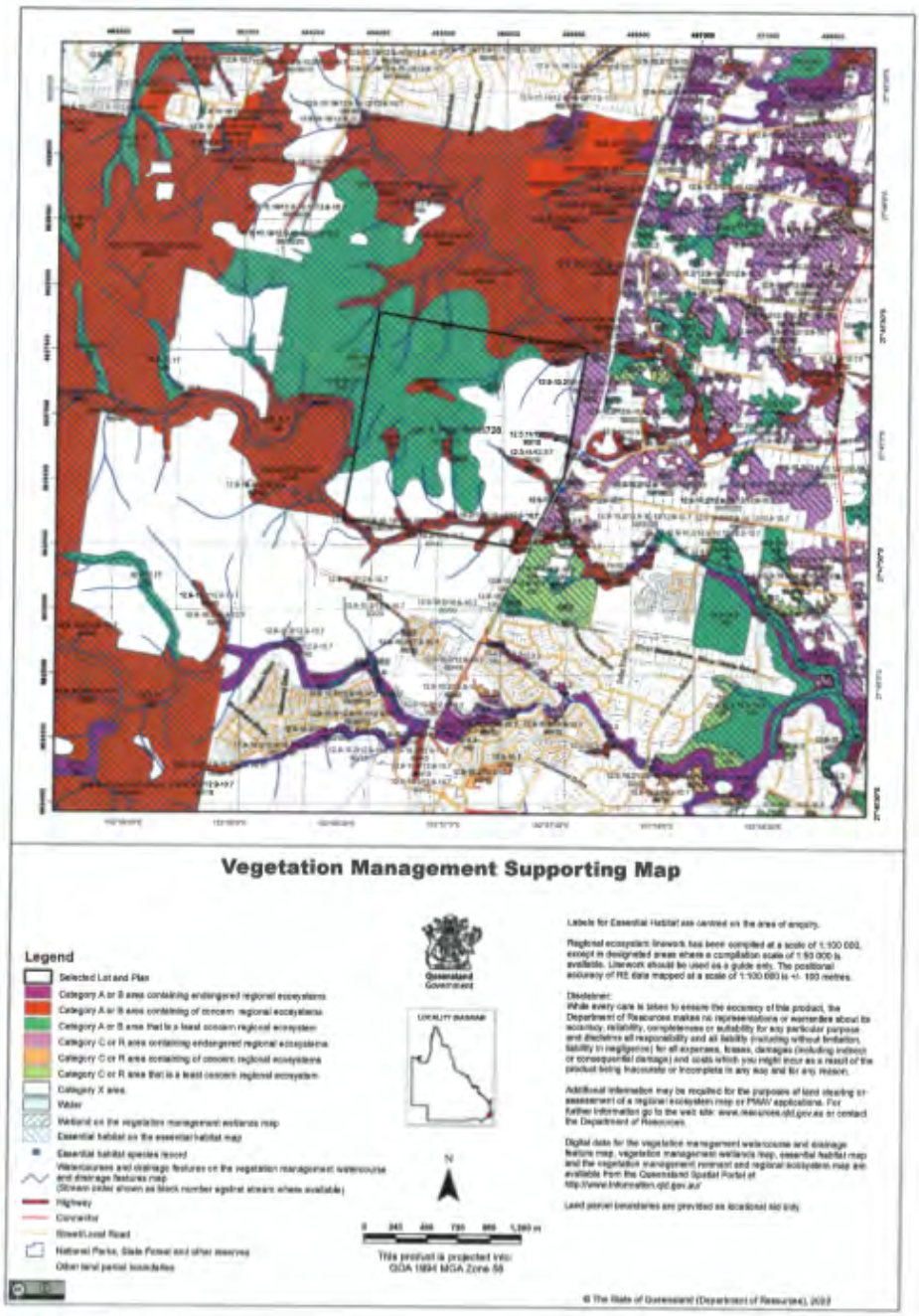
2

QRES / PSMA Regional Ecosystem Types to Vegetation Hazard Class Table

REB	REB_Label	VHC	VHC_DESC
12.9-10.11	Melaleuca irbyana low open forest on sedimentary rocks	21.1	21.1 Melaleuca dry open forest on sandplains or depositional plains
12.9-10.11a	Eucalyptus citriodora subsp. variegata and/or E. moluccana, E. tereticornis, E. crebra open forest with Melaleuca irbyana understorey on sedimentary rocks	21.1	21.1 Melaleuca dry open forest on sandplains or depositional plains
12.9-10.12	Eucalyptus seeana, Corymbia intermedia, Angophora leiocarpa woodland on sedimentary rocks	9.2	9.2 Moist to dry eucalypt woodland on coastal lowlands and ranges
12.9-10.12a	Eucalyptus imerstani, Angophora leiocarpa ± Corymbia intermedia, E. tereticornis woodland on sedimentary rocks occurring near Dal	9.2	9.2 Moist to dry eucalypt woodland on coastal lowlands and ranges
12.9-10.13	Eucalyptus curtisiodes woodland on sedimentary rocks	12.2	12.2 Dry eucalypt woodlands on sandstone and shallow soils
12.9-10.14	Eucalyptus pilularis tall open forest on sedimentary rocks	8.1	8.1 Wet eucalypt tall open forest
12.9-10.14a	Eucalyptus grandis, Lophostemon confertus, E. microcorys, Syncarpia glomulifera ± E. pilularis open forest on sedimentary rocks occurring in moist coastal areas	8.1	8.1 Wet eucalypt tall open forest
12.9-10.14b	Eucalyptus pilularis mixed open forest on sedimentary rocks in dry sub-coastal areas	8.1	8.1 Wet eucalypt tall open forest
12.9-10.15	Semi-evergreen vine thicket with Brachychiton rupestris on sedimentary rocks	7.1	7.1 Semi-evergreen to deciduous microphyll vine forest
12.9-10.16	Araucarian microphyll to notophyll vine forest on Cainozoic and Mesozoic sediments	5.1	5.1 Notophyll to microphyll vine forests
12.9-10.17	Eucalyptus acmenoides, E. major, E. siderophloia ± Corymbia citriodora subsp. variegata woodland on sedimentary rocks	9.2	9.2 Moist to dry eucalypt woodland on coastal lowlands and ranges
12.9-10.17a	Lophostemon confertus dominated open forest on sedimentary rocks	28.1	28.1 Open forests in coastal locations with species such as tite-oak or swamp box
12.9-10.17b	Corymbia citriodora subsp. variegata ± Eucalyptus acmenoides, Angophora leiocarpa, E. siderophloia open forest on Cainozoic and Mesozoic sediments	10.1	10.1 Spotted gum dominated open forests
12.9-10.17c	Eucalyptus carnea and/or Eucalyptus lindsayi open forest on Cainozoic and Mesozoic sediments	9.1	9.1 Moist to dry eucalypt open forests on coastal lowlands and ranges
12.9-10.17d	Open forest generally containing Eucalyptus siderophloia, E. propinqua, Corymbia intermedia on sedimentary rocks	9.1	9.1 Moist to dry eucalypt open forests on coastal lowlands and ranges
12.9-10.17e	Eucalyptus acmenoides, E. propinqua, Corymbia intermedia ± E. microcorys, Lophostemon confertus open forest on sedimentary rocks	9.1	9.1 Moist to dry eucalypt open forests on coastal lowlands and ranges
12.9-10.18	Angophora leiocarpa, Eucalyptus crebra woodland on sedimentary rocks	9.2	9.2 Moist to dry eucalypt woodland on coastal lowlands and ranges
12.9-10.18a	Angophora leiocarpa, Eucalyptus crebra open forest with a sub canopy of Lophostemon suaveolens occurring in gullies on sedimentary rocks	9.1	9.1 Moist to dry eucalypt open forests on coastal lowlands and ranges
12.9-10.18b	Angophora leiocarpa, Eucalyptus exserta and Callitris endlicheri woodland on sedimentary rocks	9.2	9.2 Moist to dry eucalypt woodland on coastal lowlands and ranges
12.9-10.19	Eucalyptus fibrosa subsp. fibrosa woodland on sedimentary rocks	12.2	12.2 Dry eucalypt woodlands on sandstone and shallow soils
12.9-10.19a	Corymbia henryi ± Eucalyptus fibrosa subsp. fibrosa, Corymbia citriodora subsp. variegata open forest on sedimentary rocks	10.1	10.1 Spotted gum dominated open forests
12.9-10.1x1	Eucalyptus resinifera, E. grandis, Corymbia intermedia tall shrubby open forest often on remnant Tertiary surfaces	9.1	9.1 Moist to dry eucalypt open forests on coastal lowlands and ranges
12.9-10.2	Corymbia citriodora subsp. variegata ± Eucalyptus crebra open forest on sedimentary rocks	10.1	10.1 Spotted gum dominated open forests
12.9-10.20	Eucalyptus montivaga woodland on sedimentary rocks	8.2	8.2 Wet eucalypt tall woodland
12.9-10.21	Eucalyptus acmenoides or E. portuensis woodland usually with Corymbia trachyphloia subsp. trachyphloia on Cainozoic to Proterozoic sediments	9.2	9.2 Moist to dry eucalypt woodland on coastal lowlands and ranges
12.9-10.22	Closed sedgeland/rushland on sedimentary rocks. Coastal parts	34.5	34.5 Sedgeland dominated wetlands
12.9-10.23	Eucalyptus melanoleuca open forest on sedimentary rocks	9.1	9.1 Moist to dry eucalypt open forests on coastal lowlands and ranges
12.9-10.24	Eucalyptus suffulgens open forest on sedimentary rocks	9.1	9.1 Moist to dry eucalypt open forests on coastal lowlands and ranges
12.9-10.3	Eucalyptus moluccana open forest on sedimentary rocks	13.1	13.1 Dry to moist eucalypt open forests on undulating metamorphics and granite
12.9-10.4	Eucalyptus racemosa subsp. racemosa woodland on sedimentary rocks	9.2	9.2 Moist to dry eucalypt woodland on coastal lowlands and ranges
12.9-10.5	Woodland complex often with Corymbia trachyphloia subsp. trachyphloia, C. citriodora subsp. variegata, Eucalyptus crebra, E. fibrosa subsp. fibrosa on quartzose sandstone	9.2	9.2 Moist to dry eucalypt woodland on coastal lowlands and ranges
12.9-10.5a	Eucalyptus helidonica, Corymbia citriodora subsp. variegata ± C. trachyphloia subsp. trachyphloia, Eucalyptus fibrosa subsp. fibrosa, E. taurina open forest on quartzose sandstone in the Helidon Hills region	9.1	9.1 Moist to dry eucalypt open forests on coastal lowlands and ranges
12.9-10.5b	Eucalyptus decorticans ± Corymbia trachyphloia subsp. trachyphloia woodland on quartzose sandstone	12.2	12.2 Dry eucalypt woodlands on sandstone and shallow soils
12.9-10.5c	Eucalyptus exserticta and/or E. baileyana woodland often with E. planchoniana, E. tindalae, E. carnea, E. resinifera and Angophora woolsiana on quartzose sandstone	12.2	12.2 Dry eucalypt woodlands on sandstone and shallow soils
12.9-10.5d	Eucalyptus dugandii, E. leptophleba or E. longirostrata, E. crebra, E. tereticornis and Corymbia trachyphloia woodland occurring on sedimentary rocks	9.2	9.2 Moist to dry eucalypt woodland on coastal lowlands and ranges
12.9-10.6	Acacia harpophylla open forest on sedimentary rocks	25.1	25.1 Brigalow belah open forests on heavy clay soils
12.9-10.7	Eucalyptus crebra ± E. tereticornis, Corymbia howeliana, Angophora spp., E. melanophloia woodland on sedimentary rocks	13.2	13.2 Dry to moist eucalypt woodlands on undulating metamorphics and granite
12.9-10.7a	Eucalyptus siderophloia, Corymbia intermedia ± E. tereticornis and Lophostemon confertus open forest on sedimentary rocks	13.1	13.1 Dry eucalypt open forest on sandstone and shallow soils
12.9-10.8	Eucalyptus melanophloia, E. crebra woodland on sedimentary rocks	17.2	17.2 Dry woodlands dominated by poplar box, silver-leaved ironbark or White's ironbark on sand or duricrusted plains
12.9-10.9	Shrubby/low woodland on sandstone lithosols	12.2	12.2 Dry eucalypt woodlands on sandstone and shallow soils

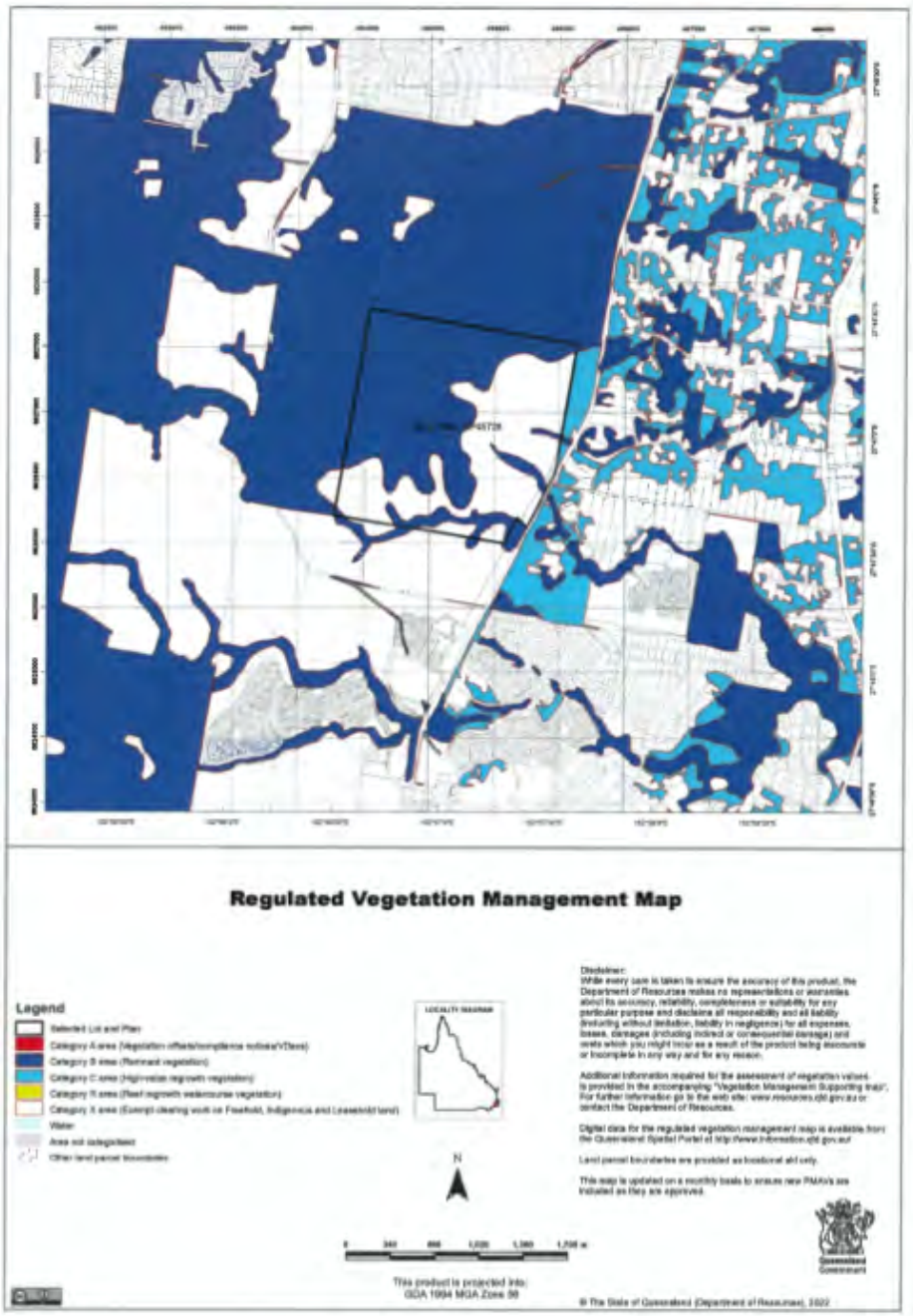

Lot: 4, Plan: RP45728
860
12.9-10.2/12.9-10.12/12.9-10.7
50/30/20
12.9-10.2
100
12.9-10.7
100
12.9-10.3
100
12.3.11/12.3.7
90/10
12.3.11/12.3.7
90/10
12.9-10.2/12.9-10.12/12.9-10.7
30/30/20
12.9-10.2/12.9-10.7
60/40
12.3.11/12.3.6
80/20
686, 860
12.3.11/12.3.6
70/30
12.9-10.2
100
12.9-10.2/12.9-10.7

04/02/2022 10:41:59
Lot: 4 Plan: RP45728



Page 2

04/02/2022 10:41:59
Lot: 4 Plan: RP45728



Page 1

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 Qld 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