BUSHFIRE MITIGATION REPORT
FM 7131
for
ACGN PTY LTD
ATF
ACGN FAMILY TRUST
at
179-191 GREEN ROAD PARK RIDGE

PREPARED BY
ELDON BOTTCHER ARCHITECT PTY LTD
145 VARSITY PARADE
VARSITY LAKES
PH 07 55920082
EMAIL bushfires@eb-a.com.au
19/02/2025

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.

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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,
- 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
- Australian Fire Engineering Guidelines

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

1.1. Address:
179-191 Green Road
Park Ridge.

1.2. Local Authority
Logan City Council

1.3. R.P.D.
Lot 4 on SP335824

1.4. Site area
60090m^2

1.5. Responsible Fire Authority
QFD for all fires.

1.6. Potential Bushfire Hazard Rating.
The draft risk rating maps prepared for the State Government show the ratings on this property ranging from Low to Medium and being in a bushfire hazard buffer area.

1.7. Land tenure.
Freehold

1.8. Adjoining owners are:
Freehold

1.9. Current Land Use:
Rural residential

1.10. Fire danger Index.
FDI 40 (nominated by AS 3959 as advised by Queensland Government Dept. of Housing and Public Works)

1.11. Topography
Undulating

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
4^0

1.14. Aspect
South East

1.15. Fuel Type
Predominate vegetation.

REGIONAL ECOSYSTEM	VHC	VHC DESCRIPTION	SURFACE FUEL LOAD	TOTAL FUEL LOAD
12.3.11	16.1	Eucalyptus dominated forest on drainage lines and alluvial plains.	10	16

1.16. Threat Vegetation Location
South of the proposed Bayliss Road extension.

1.17. Fire History
There is no evidence of a recent fire event.

1.18. Location of Access Tracks
The site is served by a sealed road system.

1.19. Location of Fire Breaks
There are no formal firebreaks.
The proposed Bayliss Road extension will provide an effective fire break.

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.

1.22. Koala Habitat
Portion of the site is in a Koala Habitat area and there are specific requirements in relation to bushfire management.
.

2. SITE AND HAZARD ASSESSMENT

2.1. Discussion with Responsible Fire Authority

The fires 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, certain Class 9 buildings and Class 10a building associated with those buildings to comply with the bushfire provisions of the NCC /BCA.

Building Class requirements AS 3959

2.4.1.	FDI	40
2.4.2.	Vegetation Classification	Site Specific Fuel Loads
2.4.3.	Land slope	Downslope 4 degrees

Distance of building from Predominate vegetation class (m) (Vegetation Management Zone)	**Primary Bushfire Attack Level**
0-<5	BAL -FZ
5-<6.8	BAL-40
6.8-<10.3	BAL-29
10.3-<15.2	BAL-19
15.2-<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. Site specific fuel loads provided by the State Government are utilised as a Performance Solution to provide more accurate site-specific loads than those provided in AS 3959.

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.

ALL ELEVATIONS ARE TO BE THE SAME CONSTRUCTION LEVEL

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 THE 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."

The National Construction Code- Volume 2 Building Code of Australia, Performance Requirements H7P5 Buildings in bushfire prone areas:-

A Class 1 building or a Class 10a building or deck associated with a Class 1 building that is constructed in a designated bushfire prone area must be designed and constructed to-
a) Reduce the risk of ignition from a *design bushfire* with an annual probability of exceedance not more that 1:50 years; and
b) Take account of the assessed duration and intensity of the fire actions of the *design bushfire*; and
c) Be designed to prevent internal ignition of the building and its contents; and
d) Maintain the structural integrity of the building for the duration of the *design bushfire.*

H7D4 Construction in bushfire prone areas
(1) The requirements of (2) only apply in a *designated bushfire prone area*.
(2) Performance requirement H7P5 is satisfied for a Class 1 building , or a Class 10a building or deck associated with a Class 1 building, if it is constructed in accordance with-
  a) AS 3959 ; or
  b) NASH Standard-Steel Framed Construction in Bushfire Areas.

Qld Variation to H7D4 Construction in Bushfire prone areas
(3) The requirements of (2) do not apply when, in accordance with AS 3959, the classified vegetation is group F rainforest (excluding wet sclerophyll forest types) , mangrove community=ties or grass lands under 300mm high.

Therefore, it is clear that compliance with any Construction Level of AS 3959 satisfies the Performance Requirements of Building Code of Australia, and all construction levels therefore are to be considered as mitigating risk in an equal manner.

2.5. Ecological Requirements

The site is in a Koala Habitat Area and there is specific restriction in relation to vegetation 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 after 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 Department 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. Fencing

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

3.6.1. No CCA treated timbers are to be used due to the potential toxicity of the products of combustion.

3.7. 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 Section 2.4 “Building Construction .”

3.8. Street Numbering

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

3.9. Less Flammable Landscaping

Any new landscaping within the vegetation management zone 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

3.10. Insurance

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

3.11. Emergency Response Procedures

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

3.11.1. 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!

3.12. Community Awareness Strategies

3.12.1. 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.

3.13. 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 the relevant Standard and this Management Report	Regular mowing and maintenance of the vegetation management areas as set out in this report. 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. Profiles
5.4. Supporting Information:
- 5.4.1. Method 2 Calculation printouts
- 5.4.2. 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 and only included within the report hardcopy.

- 5.4.3. Clearing for Bushfire Management
- 5.4.4. Planning Regulation Fact Sheet December 2019
- 5.4.5. Prepare. Act. Survive
- 5.4.6. Rural property Fire Management Guide 2010
- 5.4.7. Notes for Landholders
- 5.4.8. Bushfire Action Guide
- 5.4.9. Bushfire Safety in Urban Fringe Areas
- 5.4.10. Water + Power -Vital for Fire fighting
- 5.4.11. Less Flammable Vegetation
- 5.4.12. Fire Retardant Native Plants
- 5.4.13. Tree selection for Fire-Prone Areas
- 5.4.14. Bushfire Resilient Building Guidance for Queensland Homes Appendix E
- 5.4.15. First Draft (specifying timber in bush fire zones)
- 5.4.16. External water spray system
- 5.4.17. Fire Retardant Coating Solutions
- 5.4.18. Archicentre Bushfire Design Guide
- 5.4.19. Section 3.8 Sign Types - Fire Trail Signage of the GCCC Natural Areas Management Unit Signage Guidelines (Page 16)
- 5.4.20. Trail Number and Key Point signage
- 5.4.21. Bushfire Hydrant detail
- 5.4.22. Tank detail
- 5.4.23. Recycled Water for Firefighting
- 5.4.24. Sample Easement Document
- 5.4.25. Bushfire Windows and Shutters
- 5.4.26. A guide to retrofit your home for better protection from a bushfire.
- 5.4.27. FireFly BAL-FZ System
- 5.4.28. Bushfire Planning and Design Certification Scheme Update
- 5.4.29. Eaves Water System
- 5.4.30. Aussi Ember Guard
- 5.4.31. The Australian “False Alarm: the great rainforest fire that wasn’t”.
- 5.4.32. Hijacking Australian 2019 Bushfire Tragedies to Fearmonger Climate Change
- 5.4.33. Bushfires have been in Australia for over 60 million years.

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

- 5.4.34. Bushfire Hazard Planning in Queensland
- 5.4.35. Protecting your home against Bushfire

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

- 5.4.36. Fire in Bushland Conservation

Available from Queensland Heritage Trust.

- 5.4.37. 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.

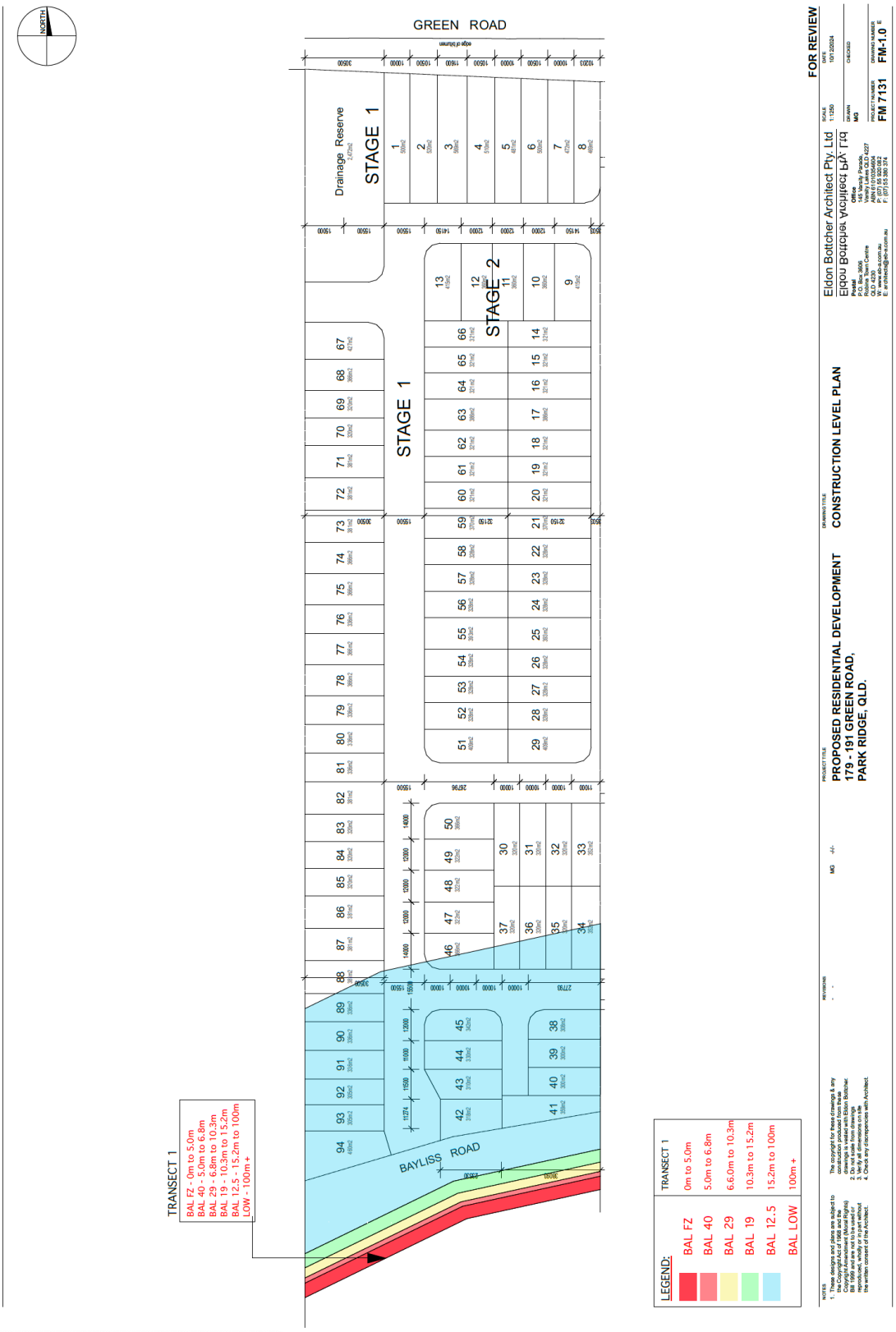
1. Property description This section need only be completed if details of street address and property description are applicable. E.g., in the case of (standard/generic) pool design/shell manufacture and/or patio and carport systems this section may not be applicable. The description must identify all 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)* 179-191 Green Road Park Ridge State **QLD** Postcode Lot and plan details (*attach list if necessary*) Lot 4 on SP335824 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 7131 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 as BAL 12.5 and BAL Low
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 7131 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.** Logan City Council Town Plan Bushfire Management Constraint code.
4. Reference documentation Clearly identify any relevant documentation, e.g., numbered structural engineering plans.	Bushfire Mitigation Report FM 7131

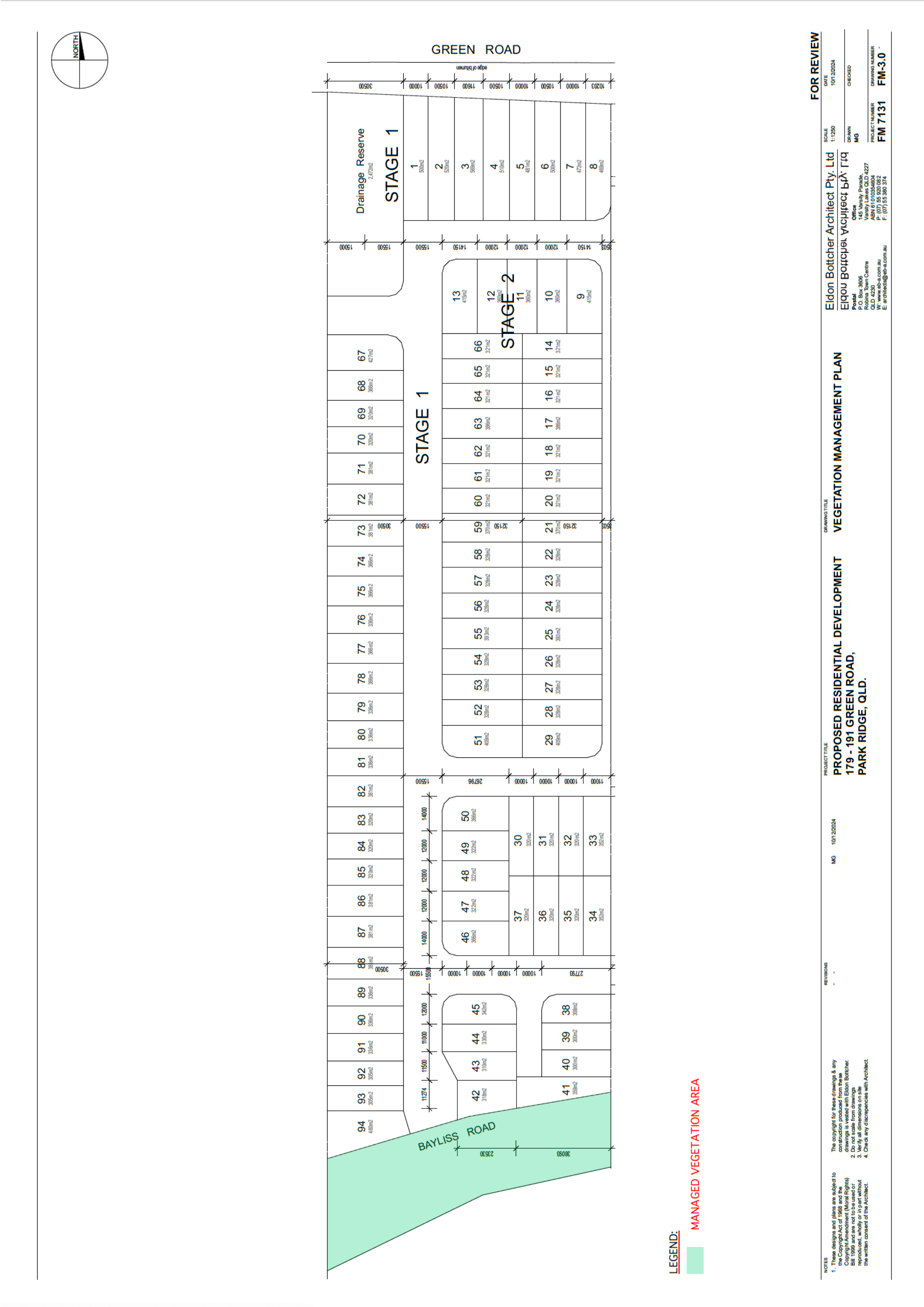
5. Building certifier reference number and building development application number	Building certifier reference number Building development application number *(if available)* Not Available
6. Appointed Competent person details. Under Part 6 of the Building Regulation a person must be assessed as a competent 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** *E J Bottcher* …… **Date** 19 February 25

LOCAL GOVERNMENT USE ONLY

Date received		**Reference Number/s**	

APPENDIX 5.2
SITE PLANS


NORTH
GREEN ROAD
Drainage Reserve
STAGE 1
STAGE 2
STAGE 1
BAYLISS ROAD
TRANSECT 1
BAL FZ - 0m to 5.0m
BAL 40 - 5.0m to 6.8m
BAL 29 - 6.8m to 10.3m
BAL 19 - 10.3m to 15.2m
BAL 12.5 - 15.2m to 100m
LOW - 100m +
LEGEND:
TRANSECT 1
BAL FZ 0m to 5.0m
BAL 40 5.0m to 6.8m
BAL 29 6.6.0m to 10.3m
BAL 19 10.3m to 15.2m
BAL 12.5 15.2m to 100m
BAL LOW 100m +
FOR REVIEW
Eldon Bottcher Architect Pty. Ltd
ELDON BOTTCHER ARCHITECT PTY LTD
PROPOSED RESIDENTIAL DEVELOPMENT
179 - 191 GREEN ROAD,
PARK RIDGE, QLD.
CONSTRUCTION LEVEL PLAN
FM 7131
FM-1.0 E


GREEN ROAD
BAYLISS ROAD
Drainage Reserve
STAGE 1
STAGE 2
LEGEND:
MANAGED VEGETATION AREA
FOR REVIEW
Eldon Bottcher Architect Pty. Ltd
PROPOSED RESIDENTIAL DEVELOPMENT
179 - 191 GREEN ROAD,
PARK RIDGE, QLD.
VEGETATION MANAGEMENT PLAN
FM 7131
FM-3.0

APPENDIX 5.3
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 with Involvement in more than 6,000 Bushfire Mitigation Projects ranging from single dwellings to major subdivisions, burn plans and general mitigation advice.

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

Life Member
Guanaba Rural Fire Brigade
Member
Clagiraba Rural Fire Brigade

Member Practice Committee AIA Qld Chapter

AIA delegate to Building Industry and Research Consultation Panel on Bushfire Hazard advising Queensland State Bushfire Committee

BBCA representation to Australian Standards Committee FP20 (AS 3959 & AS 5414)

Research Consultant to Queensland University of Technology Scenic Rim Black Saturday Recovery Project

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

© **27/03/23**

APPENDIX 5.4
SUPPORTING INFORMATION

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

BUSHFIRE ATTACK 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 3959-2009 METHOD 2

PROJECT	**RESIDENTIAL DEVELOPMENT**
SITE ADDRESS	**179-191 GREENROAD PARK RIDGE**

INPUTS

FDI		40
VEGETATION TYPE	SEE TABLE	Site Specific Fuel Loads
TOTAL FUEL LOAD		16 tonnes/ha
SLOPE UNDER VEGETATION		4 degrees
SLOPE BETWEEN VEGETATION AND BUILDING		4 degrees
FLAME WIDTH		100 m
ELEVATION OF RECEIVER		2 m
DISTANCE BETWEEN VEGETATION AND BUILDING		5 m

RESULTS

RADIANT HEAT	39.46 kw/m²
FLAME LENGTH	6.03 m
RATE OF SPREAD	0.63 km/hr
ATMOSPHERIC TRANSMISSIVITY	89%
PEAK ELEVATION OF RECEIVER	2 m
FLAME ANGLE	56 degrees
CONSTRUCTION LEVEL REQUIRED	**BAL – 40 BAL**

ELDON BOTTCHER ARCHITECT PTY LTD (C) 6/12/2024 1 OF 1

BUSHFIRE ATTACK 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 3959-2009 METHOD 2

PROJECT	**RESIDENTIAL DEVELOPMENT**
SITE ADDRESS	**179-191 GREENROAD PARK RIDGE**

INPUTS

FDI		40
VEGETATION TYPE	SEE TABLE	Site Specific Fuel Loads
TOTAL FUEL LOAD		16 tonnes/ha
SLOPE UNDER VEGETATION		4 degrees
SLOPE BETWEEN VEGETATION AND BUILDING		4 degrees
FLAME WIDTH		100 m
ELEVATION OF RECEIVER		2.3 m
DISTANCE BETWEEN VEGETATION AND BUILDING		**6.8** m

RESULTS

RADIANT HEAT	28.92 kw/m²
FLAME LENGTH	6.03 m
RATE OF SPREAD	0.63 km/hr
ATMOSPHERIC TRANSMISSIVITY	88%
PEAK ELEVATION OF RECEIVER	2.3 m
FLAME ANGLE	68 degrees
CONSTRUCTION LEVEL REQUIRED	**BAL – 29 BAL**

ELDON BOTTCHER ARCHITECT PTY LTD (C) 6/12/2024 1 OF 1

BUSHFIRE ATTACK 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 3959-2009 METHOD 2

PROJECT	**RESIDENTIAL DEVELOPMENT**
SITE ADDRESS	**179-191 GREENROAD PARK RIDGE**

INPUTS

FDI		40
VEGETATION TYPE	SEE TABLE	Site Specific Fuel Loads
TOTAL FUEL LOAD		16 tonnes/ha
SLOPE UNDER VEGETATION		4 degrees
SLOPE BETWEEN VEGETATION AND BUILDING		4 degrees
FLAME WIDTH		100 m
ELEVATION OF RECEIVER		2.2 m
DISTANCE BETWEEN VEGETATION AND BUILDING		**10.3** m

RESULTS

RADIANT HEAT	18.88 kw/m²
FLAME LENGTH	6.03 m
RATE OF SPREAD	0.63 km/hr
ATMOSPHERIC TRANSMISSIVITY	87%
PEAK ELEVATION OF RECEIVER	2.2 m
FLAME ANGLE	77 degrees
CONSTRUCTION LEVEL REQUIRED	**BAL – 19 BAL**

ELDON BOTTCHER ARCHITECT PTY LTD (C) 6/12/2024 1 OF 1

BUSHFIRE ATTACK ASSESSMENT

ELDON BOTTCHER ARCHITECT PTY LTD
145 VARSITY PARADE
VARSITY LAKES
QLD. 4327
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THIS ASSESSMENT USES AS 3959-2009 METHOD 2

PROJECT	**RESIDENTIAL DEVELOPMENT**	
SITE ADDRESS	**179-191 GREENROAD PARK RIDGE**	

INPUTS

FDI		40	
VEGETATION TYPE	SEE TABLE	Site Specific Fuel Loads	
TOTAL FUEL LOAD		16	tonnes/ha
SLOPE UNDER VEGETATION		4	degrees
SLOPE BETWEEN VEGETATION AND BUILDING		4	degrees
FLAME WIDTH		100	m
ELEVATION OF RECEIVER		2.2	m
DISTANCE BETWEEN VEGETATION AND BUILDING		**15.2**	m

RESULTS

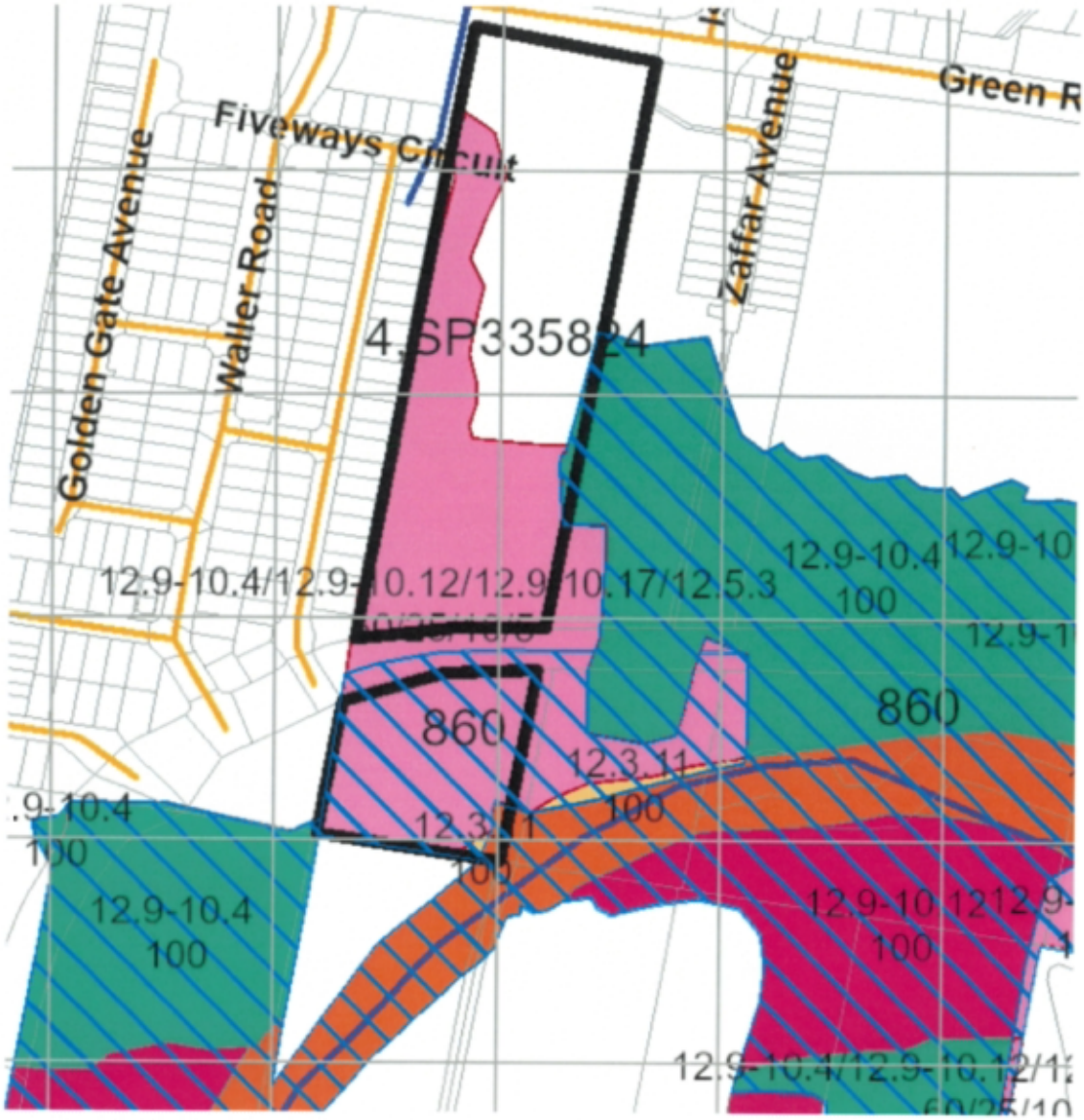
RADIANT HEAT	12.51	kw/m²
FLAME LENGTH	6.03	m
RATE OF SPREAD	0.63	km/hr
ATMOSPHERIC TRANSMISSIVITY	86%	
PEAK ELEVATION OF RECEIVER	2.2	m
FLAME ANGLE	82	degrees
CONSTRUCTION LEVEL REQUIRED	**BAL – 12.5**	**BAL**

ELDON BOTTCHER ARCHITECT PTY LTD (C) 6/12/2024 1 OF 1

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
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
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 dominated 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-leaved 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

2

RE8	RE8_Label	VHC	VHC_DESC
12.3.10	Eucalyptus populnea woodland on alluvial plains	17.2	17.2 Dry woodlands dominated by poplar box, silver-leaved ironbark or White's ironbark on sand or depositional plains
12.3.10a	Acacia harpophylla open forest to woodland on alluvial plains	25.1	25.1 Brigalow belah open forests on heavy clay soils
12.3.11	Eucalyptus tereticornis ± Eucalyptus siderophloia, Corymbia intermedia open forest on alluvial plains usually near coast	16.1	16.1 Eucalyptus dominated forest on drainage lines and alluvial plains
12.3.11a	Eucalyptus tereticornis and/or E. siderophloia open forest with vine forest understorey on alluvial plains	16.1	16.1 Eucalyptus dominated forest on drainage lines and alluvial plains
12.3.12	Eucalyptus latisinensis or E. exserta, Melaleuca viridiflora var. viridiflora woodland on alluvial plains	21.2	21.2 Melaleuca dry woodlands on sandplains or depositional plains
12.3.13	Closed heathland on seasonally waterlogged alluvial plains usually near coast	29.3	29.3 Heathlands and associated scrubs and shrublands
12.3.14	Banksia aemula low woodland on alluvial plains usually near coast	29.2	29.2 Woodlands associated with heathlands, scrubs and shrublands
12.3.14a	Eucalyptus racemosa woodland on alluvial plains near coast	29.2	29.2 Woodlands associated with heathlands, scrubs and shrublands
12.3.15	Corymbia intermedia, Syncarpia glomulifera open forest on granite outwash	9.1	9.1 Moist to dry eucalypt open forests on coastal lowlands and ranges
12.3.2	Eucalyptus grandis tall open forest on alluvial plains	8.1	8.1 Wet eucalypt tall open forest
12.3.2a	Eucalyptus resinifera and Syncarpia glomulifera open forest with a wet heath understory on alluvial plains	8.1	8.1 Wet eucalypt tall open forest
12.3.3	Eucalyptus tereticornis woodland on Quaternary alluvium	16.2	16.2 Eucalyptus dominated woodland on drainage lines and alluvial plains
12.3.3a	Eucalyptus crebra, Corymbia tessellaris woodland to open forest usually on high level Quaternary alluvium	18.2	18.2 Dry eucalypt woodlands on sand or depositional plains
12.3.3b	Eucalyptus moluccana open forest to woodland with an understorey of Melaleuca irbyana on alluvial plains	19.1	19.1 Dry to moist eucalypt open forests on undulating metamorphics and granite
12.3.3c	Melaleuca irbyana low open forest on alluvial plains	21.1	21.1 Melaleuca dry open forest on sandplains or depositional plains
12.3.3d	Eucalyptus moluccana woodland on Quaternary alluvium	19.2	19.2 Dry to moist eucalypt woodlands on undulating metamorphics and granite
12.3.4	Melaleuca quinquenervia, Eucalyptus robusta woodland on coastal alluvium	22.1	22.1 Melaleuca open forests on seasonally inundated lowland coastal swamps
12.3.4a	Eucalyptus bancroftii open woodland on coastal alluvium	22.2	22.2 Melaleuca woodlands on seasonally inundated lowland coastal swamps
12.3.5	Melaleuca quinquenervia open forest on coastal alluvium	22.1	22.1 Melaleuca open forests on seasonally inundated lowland coastal swamps
12.3.5a	Melaleuca quinquenervia, Casuarina glauca ± Eucalyptus tereticornis open forest on lowest river terraces	22.1	22.1 Melaleuca open forests on seasonally inundated lowland coastal swamps
12.3.6	Melaleuca quinquenervia ± Eucalyptus tereticornis, Lophostemon suaveolens open forest on coastal alluvial plains	22.1	22.1 Melaleuca open forests on seasonally inundated lowland coastal swamps
12.3.7	Eucalyptus tereticornis, Casuarina cunninghamiana subsp. cunninghamiana ± Melaleuca spp. fringing woodland	16.2	16.2 Eucalyptus dominated woodland on drainage lines and alluvial plains
12.3.7a	Melaleuca bracteata open forest in drainage depressions	22.1	22.1 Melaleuca open forests on seasonally inundated lowland coastal swamps
12.3.7b	Naturally occurring waterholes and lagoons in the beds of river channels	16.6	16.6 Sparsely vegetated areas associated with Eucalyptus woodlands on drainage lines
12.3.7c	Billabongs and ox-bow lakes containing either permanent or periodic water bodies	34.5	34.5 Sedgeland dominated wetlands
12.3.7d	Aquatic vegetation usually fringed with Eucalyptus tereticornis in closed depressions on alluvial plains	34.5	34.5 Sedgeland dominated wetlands
12.3.8	Swamps with Cyperus spp., Schoenoplectus spp. and Eleocharis spp.	34.5	34.5 Sedgeland dominated wetlands
12.3.9	Eucalyptus nobilis open forest on alluvial plains	16.1	16.1 Eucalyptus dominated forest on drainage lines and alluvial plains
12.5.1	Open forest complex with Corymbia citriodora subsp. variegata on subcoastal remnant Tertiary surfaces. Usually deep red soils	10.2	10.2 Spotted gum dominated woodlands
12.5.10	Eucalyptus latisinensis and/or Banksia aemula low open woodland on complex of remnant Tertiary surface and Tertiary sedimentary rocks	29.2	29.2 Woodlands associated with heathlands, scrubs and shrublands
12.5.11	Syncarpia glomulifera woodland on complex of remnant Tertiary surface and Tertiary sedimentary rocks	8.2	8.2 Wet eucalypt tall woodland
12.5.12	Eucalyptus racemosa, E. latisinensis ± Corymbia gummifera, C. intermedia, E. bancroftii woodland with heathy understorey on remnant Tertiary surfaces	9.2	9.2 Moist to dry eucalypt woodland on coastal lowlands and ranges
12.5.13	Microphyll to notophyll vine forest ± Araucaria cunninghamii on remnant Tertiary surfaces	5.1	5.1 Notophyll to microphyll vine forests
12.5.13a	Microphyll to notophyll vine forest ± Araucaria cunninghamii on remnant Tertiary surfaces	5.1	5.1 Notophyll to microphyll vine forests
12.5.13b	Microphyll to notophyll vine forest on coastal remnant Tertiary surfaces	5.1	5.1 Notophyll to microphyll vine forests
12.5.13c	Semi-evergreen vine thicket with Brachychiton rupestris on remnant Tertiary surfaces (land zone 5)	7.1	7.1 Semi-evergreen to deciduous microphyll vine forest
12.5.1a	Eucalyptus decorticans open forest on remnant Tertiary surfaces	12.1	12.1 Dry eucalypt open forest on sandstone and shallow soils
12.5.1b	Eucalyptus cloeziana open forest ± E. microcorys and Corymbia intermedia on remnant Tertiary surfaces	12.1	12.1 Dry eucalypt open forest on sandstone and shallow soils
12.5.1c	Eucalyptus helidonica open forest on remnant Tertiary surfaces in the Helidon hills region	9.1	9.1 Moist to dry eucalypt open forests on coastal lowlands and ranges
12.5.1d	Eucalyptus dura, E. acmenioides and Corymbia intermedia woodland on remnant Tertiary surfaces	12.2	12.2 Dry eucalypt woodlands on sandstone and shallow soils
12.5.1e	Eucalyptus crebra and Angophora leiocarpa woodland on remnant Tertiary surfaces	9.1	9.1 Moist to dry eucalypt open forests on coastal lowlands and ranges
12.5.1f	Eucalyptus sideroxylon, E. melanoleuca and E. moluccana open forest on remnant Tertiary surfaces	12.1	12.1 Dry eucalypt open forest on sandstone and shallow soils
12.5.2	Corymbia intermedia, Eucalyptus tereticornis open forest on remnant Tertiary surfaces, usually near coast. Usually deep red soils	9.1	9.1 Moist to dry eucalypt open forests on coastal lowlands and ranges
12.5.2a	Corymbia intermedia, Eucalyptus tereticornis woodland on remnant Tertiary surfaces, usually in coastal areas with deep red soils.	9.1	9.1 Moist to dry eucalypt open forests on coastal lowlands and ranges
12.5.2b	Eucalyptus tereticornis ± Corymbia intermedia open forest on sub-coastal remnant Tertiary surfaces usually with deep red soils	9.1	9.1 Moist to dry eucalypt open forests on coastal lowlands and ranges
12.5.2x1	Melaleuca irbyana low open forest on remnant Tertiary surfaces	21.1	21.1 Melaleuca dry open forest on sandplains or depositional plains
12.5.3	Eucalyptus racemosa woodland on remnant Tertiary surfaces	9.1	9.1 Moist to dry eucalypt open forests on coastal lowlands and ranges
12.5.3a	Corymbia intermedia, Eucalyptus seeana ± E. racemosa, Angophora leiocarpa open woodland on remnant Tertiary surfaces occurring mainly to the south of Brisbane	9.2	9.2 Moist to dry eucalypt woodland on coastal lowlands and ranges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Waller Road
Zaffar Avenue
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4/SP335824
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12.9-10.4/12.9-10.12/12.9-10.17/12.5.3
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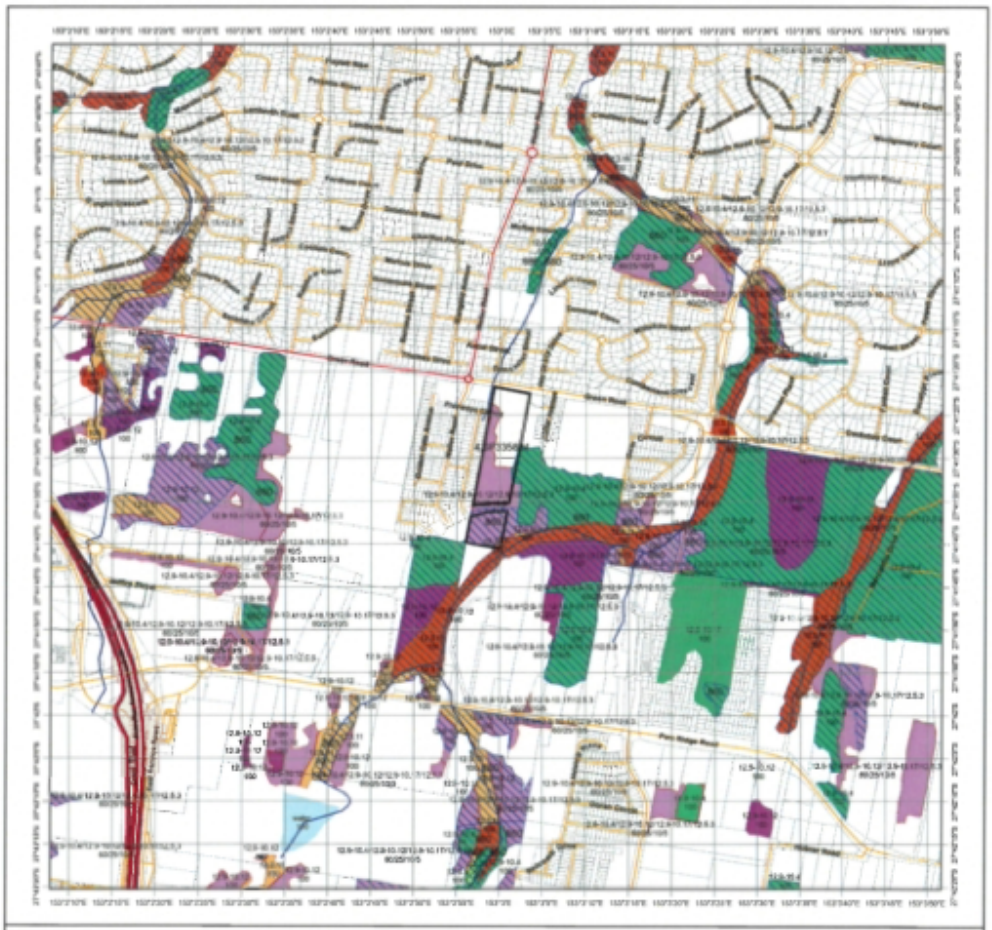

Vegetation Management Supporting Map

Category A or B area containing endangered regional ecosystems
Category A or B area containing of concern regional ecosystems
Category A or B area that is a least concern regional ecosystem
Category C or R area containing endangered regional ecosystems
Category C or R area containing of concern regional ecosystems
Category C or R area that is a least concern regional ecosystem
Category X area
Water
Wetland on the vegetation management wetlands map
Essential habitat on the essential habitat map
Essential habitat species record
Watercourses and drainage features on the vegetation management watercourse and drainage features map
(Stream order shown as black number against stream where available)
Highway
Connector
Street/Local Road
National Parks, State Forest and other reserves
Other land parcel boundaries
Selected Lot and Plan

LOCALITY DIAGRAM

N

0 125 250 375 500 625 m

This product is displayed in:
GDA2020

Labels for Essential Habitat are centred on the area of enquiry.

Regional ecosystem linework has been compiled at a scale of 1:100 000, except in designated areas where a compilation scale of 1:50 000 is available. Linework should be used as a guide only. The positional accuracy of RE data mapped at a scale of 1:100 000 is +/- 100 metres.

Disclaimer:
While every care is taken to ensure the accuracy of this product, the Department of Resources makes no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damage) and costs which you might incur as a result of the product being inaccurate or incomplete in any way and for any reason.

Additional information may be required for the purposes of land clearing or assessment of a regional ecosystem map or PMAV applications. For further information go to the web site: www.resources.qld.gov.au or contact the Department of Resources.

Digital data for the vegetation management watercourse and drainage features map, vegetation management wetlands map, essential habitat map and the vegetation management remnant and regional ecosystem map are available from the Queensland Spatial Portal at http://www.information.qld.gov.au/

Land parcel boundaries are provided as locational aid only.

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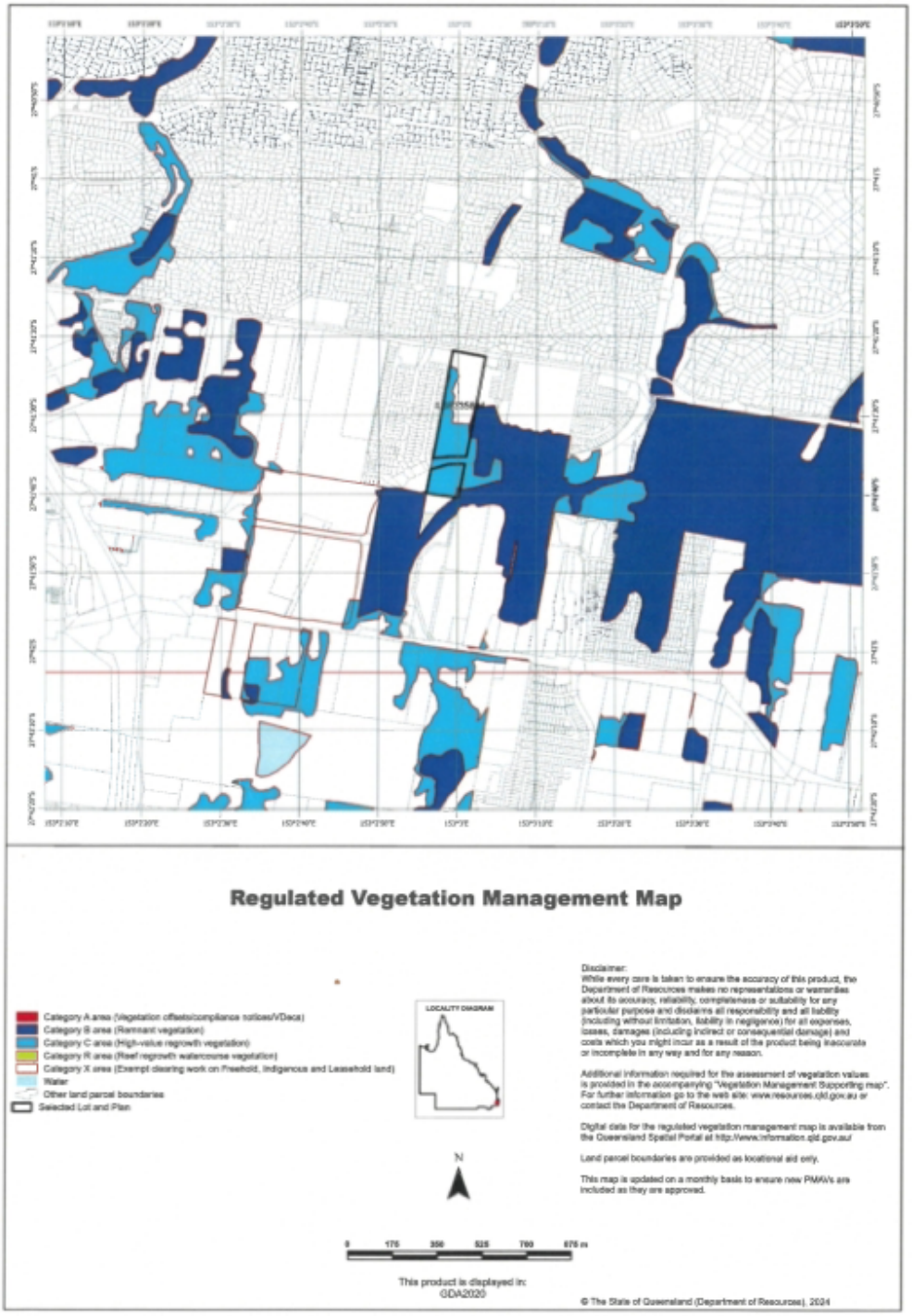
Lot: 4 Plan: SP335824 13/11/2024 20:33:01



END OF REPORT