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**Subject: Bushfire hazard assessment at 86 Keona Road, McDowall, Queensland**

## 1 Introduction

Land and Environment Consultants Pty Ltd (LEC) was engaged to undertake a bushfire hazard assessment at 86 Keona Road, McDowall, properly described as lot 2/SP127997 (**the site**).

A development permit application has been made over the site for the reconfiguration of a lot - residential subdivision (**proposed development**) under the Brisbane City Plan 2014 and is identified by Brisbane City Council (**Council**) as application reference A007008486. The site plan for the proposed development is provided in Appendix 1, but is subject to change.

Whilst the site is not affected by the *Bushfire overlay map* in the Brisbane City Plan 2014 online mapping system (BCC 2026), it is identified as a bushfire hazard area by the *Bushfire prone area map* in the State Planning Policy interactive mapping system (DSDILGP 2026) which is provided in Appendix 2. As a result, the proposed development is subject to assessment against the Brisbane City Plan 2014 *Bushfire overlay code* (**Bushfire overlay code**).

Performance outcome PO1 of the Bushfire overlay code requires the proposed development to address the bushfire hazard determined by a bushfire hazard assessment. The note to acceptable outcome AO1.1 of the Bushfire overlay code states:

Where a bushfire hazard assessment determines that the bushfire hazard for the part of the site in which development is proposed is 'low', no further assessment against this code is required.

The bushfire hazard assessment documented in this report was undertaken in general accordance with the method and guidance in Council's *Technical Assessment Guideline – Bushfire Reporting* (BCC 2022) (**Bushfire assessment guide**) and *Bushfire Resilient Communities Technical Reference Guide for the State Planning Policy State Interest 'Natural Hazards, Risk and Resilience – Bushfire* (QFES 2019) (**BRC guide**) which was prepared to provide technical guidance for the implementation of *Natural Hazards, Risk and Resilience – Bushfire, State Planning Policy State Interest guidance material* (DSDMIP 2019).

This report documents the bushfire hazard assessment for the site and concludes that the site and proposed development are not affected by bushfire hazard. Therefore, further assessment of the

proposed development against the Bushfire overlay code is not required for the development permit application.

## 2 Method

To meet requirements of the Bushfire assessment guide and BRC guide, the following tasks were undertaken:

- desktop review of relevant information, including:
  - the Bushfire overlay map;
  - fire history data in Queensland Globe (DR 2026); and
  - data in the Queensland Spatial Data Catalogue (DNRMMRRD 2026) (**Qspatial**) which is referenced in the *Bushfire Resilient Communities Mapviewer User Guide* (QFD 2025), ie regional ecosystem map, vegetation hazard class (**VHC**) map and severe fire weather map;
- site inspection to validate the VHC map, assess built-up areas, current land management practices, the slope of land and to identify any evidence of previous fires; and
- bushfire hazard assessment in general accordance with the procedure in Section 5.4.2 of the BRC guide.

Aerial imagery and measuring tools were accessed online in Google Earth and Queensland Globe to assist with validating observations and measurements made during the site inspection.

## 3 Fire history

Queensland Globe data confirms no bushfires have occurred within 1 kilometre of the site during the past 25 years. The site inspection also found no evidence of recent fire activity. Based on this data and the surrounding development pattern, the likelihood of the site being directly exposed to bushfire attack in the future is considered low.

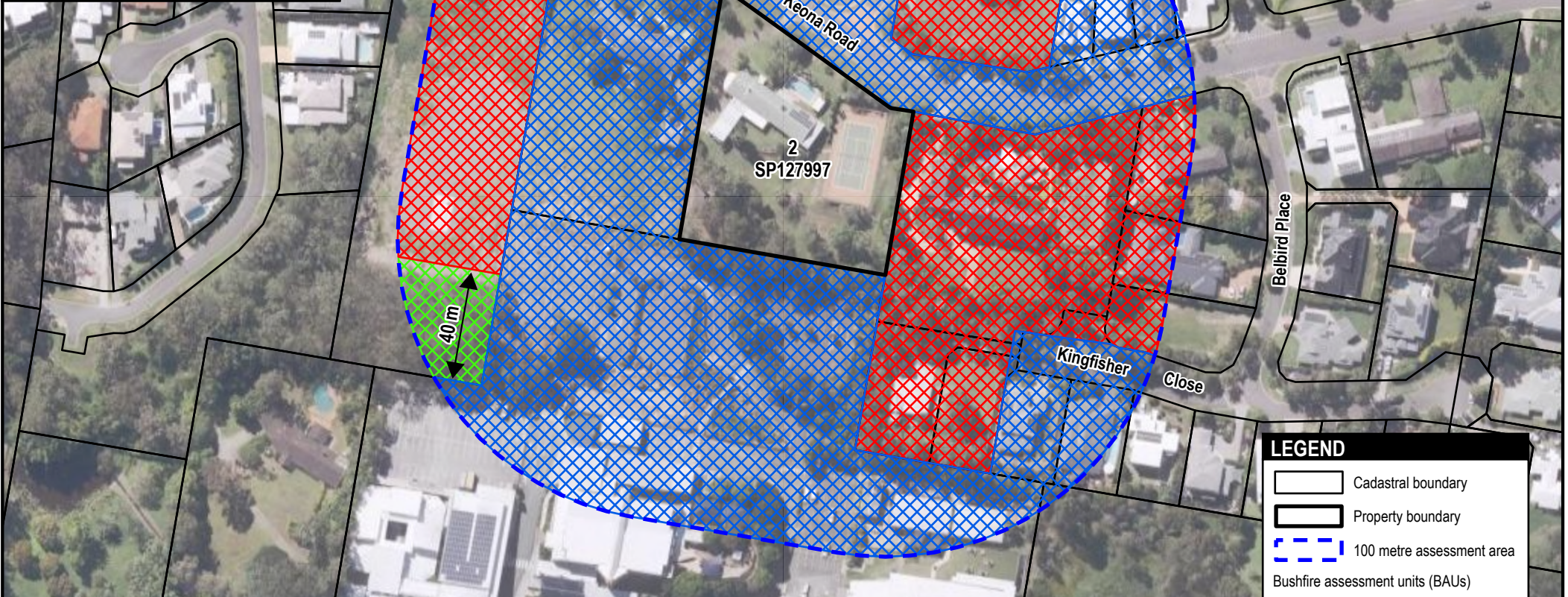
## 4 Site inspection and vegetation hazard class assessment

LEC inspected land adjacent to the site on 4 June 2026. Observations were recorded about current land use and management, vegetation characteristics and the slope of land.

Bushfire assessment units (**BAUs**) have been used to describe characteristics of vegetation within 100 metres (**m**) of the site and are shown in Figure 1.

Table 1 provides a summary of VHC data in Qspatial, observations from the site inspection and notes about the VHC assessment of BAUs which are based on the process outlined in section 6.2 of the BRC guide. Features of BAUs are shown in Photographs 1-3.

**LOCALITY MAP**



**LEGEND**

- Cadastral boundary
- Property boundary
- 100 metre assessment area
- Bushfire assessment units (BAUs)**
- BAU 1 – VHC 42.6
- BAU 2 – VHC 41.4
- BAU 3 – VHC 10.1

<p><b>LEC</b> Land and environment consultants</p>	Client: River Quarter No. 3 Development Co. Pty Ltd	<b>Bushfire hazard assessment report</b> 86 Keona Road, McDowall		Aerial image: Google Maps Imagery
	Design: Land and Environment Consultants Date Saved: 11/06/26 3:49 PM    Created by: RA	Title: VHC assessment	Figure: 1	Scale: 1:2,000 

**Table 1 Site observations and VHC assessment**

BAU	VHC data in Qspatial	Observed VHCs	VHC assessment
BAU 1	VHC 10.1 <i>Spotted gum dominated open forests (VHC 10.1)</i> , VHC 41.4 <i>Discontinuous low grass or tree cover (VHC 41.4)</i> and VHC 42.6 <i>Nil to very low vegetation cover (VHC 42.6)</i>	VHC 42.6	<p>BAU 1 is aligned with roads, car parks, school buildings and residential development and has nil to very low vegetation.</p> <p>VHC 42.6 has a very low level of discontinuous bushfire fuel and is classified as a low hazard in figure 14 of the BRC guide.</p>
BAU 2	VHC 10.1, VHC 41.4 and VHC 42.6	VHC 41.4	<p>BAU 2 is aligned with sports fields and residential development with areas of mown grass.</p> <p>VHC 41.4 has a low level of discontinuous bushfire fuel and is classified as a low hazard in figure 14 of the BRC guide.</p>
BAU 3	VHC 10.1 and VHC 41.4	VHC 10.1	<p>BAU 3 is a 40 m wide corridor of bushland vegetation which adjoins land with discontinuous bushfire fuel, ie VHC 41.4 and VHC 42.6.</p> <p>BAU 3 has been assessed against the narrow corridors filter in step 3 of section 4.2.6 of the BRC guide. This analysis is explained in Section 5.2.</p>



**Photograph 1 Example of VHC 42.6 within BAU 1**



**Photograph 2 Example of VHC 41.4 within BAU 2**



Photograph 3 VHC 10.1 within BAU 3

## 5 Small patch and narrow corridor mapping rules

Section 4.2.6 of the BRC guide identifies a series of steps for modifying the potential bushfire hazard class of small patches and narrow corridors of bushfire prone vegetation. The steps 'reflect the likelihood of lower fireline intensities in smaller vegetation patches and vegetation corridors'.

Step 3 of section 4.2.6 of the BRC guide provides criteria to classify narrow corridors of continuous fuel which are < 50 m wide as a low hazard.

BAU 3 is a narrow corridor of VHC 10.1 which is 40 m wide and adjoins land with discontinuous bushfire fuel, ie VHC 42.6 within BAU 1 and VHC 41.4 within BAU 2. Therefore, BAU 3 is assessed as being consistent with the narrow corridors filter in step 3 of section 4.2.6 of the BRC guide.

Step 3 recognises that areas of continuous fuel which are consistent with the narrow corridors filter are less likely to ignite due to their disconnection with large bushland areas that can carry a full intensity running fire front. Therefore, if a narrow corridor of continuous fuel is ignited it will likely be from a point ignition which requires both distance and area to develop into a running fire front of considerable hazard. On this basis, if a fire front did emerge from the narrow corridor of VHC 10.1 within BAU 3 it would be narrow in width and significantly less in intensity than a fire front which has had sufficient time and area to develop. As a result, the BRC guide assigns the narrow corridor of VHC 10.1 within BAU 3 a potential bushfire intensity of < 4,000 kilowatts/m (**kW**)/m and deems it to be a low hazard for the purpose of land use planning and development assessment.

## 6 Potential bushfire intensity calculations

The potential bushfire intensity of BAUs was determined using the Queensland Public Safety Business Agency *Potential Bushfire Intensity Calculator* (version November 2014) which is an Excel spreadsheet calculator that models the potential bushfire intensity formulae in section 4.2.4 of the BRC guide.

Section 3.1 of the BRC guide defines bushfire hazard classes as follows:

- very high – potential bushfire intensity > 40,000 kW/m;
- high – potential bushfire intensity 20,000-40,000 kW/m;
- medium – potential bushfire intensity 4,000-20,000 kW/m; and
- non bushfire hazard - potential bushfire intensity < 4,000 kW/m.

Results of the potential bushfire intensity calculations which determine the bushfire hazard class of BAUs shown in Figure 1 are presented in Table 2.

**Table 2 Potential bushfire intensity calculations**

BAU	VHC	Potential fuel load (t/ha) <sup>1</sup>	Slope (°)	Potential bushfire intensity (kW/m)	Bushfire hazard class
BAU 1	VHC 42.6	-	-	< 4,000 <sup>2</sup>	Non-bushfire hazard class
BAU 2	VHC 41.4	-	-	< 4,000 <sup>2</sup>	Non-bushfire hazard class
BAU 3	VHC 10.1	-	-	< 4,000 <sup>3</sup>	Non-bushfire hazard class

Notes  
1 Potential fuel load taken from figure 14 of the BRC guide.  
2 VHC 42.6 and VHC 41.4 are classified in figure 14 of the BRC guide as a low hazard class with discontinuous bushfire fuel. Therefore, they are deemed to have a potential bushfire intensity < 4,000 kW/m.  
3 BAU 3 is consistent with the narrow corridors filter in step 3 of section 4.2.6 of the BRC guide and is deemed to be a low hazard class with a potential bushfire intensity < 4,000 kW/m.

Results in Table 2 confirm that all land within 100 m of the site is a non-bushfire hazard class. Therefore, it is concluded from the potential bushfire intensity calculations that the site and proposed development are not affected by medium, high or very high potential bushfire intensity areas or the 100 m wide potential impact buffer which is applied to these areas, ie the bushfire hazard rating for the site and proposed development is low.

## 7 Development assessment

The bushfire hazard assessment determined the site and proposed development are not affected by medium, high or very high potential bushfire intensity areas or the 100 m wide potential impact buffer which is applied to these areas, ie the bushfire hazard rating for the site and proposed development is low. Therefore, in accordance with the note to acceptable outcome AO1.1 of the Bushfire overlay code; further assessment of the proposed development against the Bushfire overlay code is not required for the development permit application.

## 8 Conclusion

This report was prepared by a suitably qualified and experienced person based on the criteria in section 10.2 of the BRC guide and is in general accordance with the Bushfire assessment guide and BRC guide. The bushfire hazard assessment determined the site and proposed development have a bushfire hazard rating of low.

In accordance with the note to acceptable outcome AO1.1 of the Bushfire overlay code; further assessment of the proposed development against the Bushfire overlay code is not required for the development application.

Yours sincerely,



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*Disclaimer*

Notwithstanding the precautions adopted in this report, it should always be remembered that bushfires burn under a range of conditions. An element of risk, no matter how small always remains, and although AS 3959-2018 is designed to improve the performance of such buildings, there can be no guarantee, because of the variable nature of bushfires, that any building will withstand bushfire attack on every occasion.

It should be noted that upon lodgement of a development proposal, State Government, council and/or the fire service may recommend additional construction requirements.

Although every care has been taken in the preparation of this report, Land and Environment Consultants Pty Ltd accept no responsibility resulting from the use of the information in this report.

## References

Brisbane City Council (BCC) 2022, *Technical Assessment Guide – Bushfire Reporting*, 2022

Brisbane City Council (BCC) 2026, *Brisbane City Plan 2014 – City Plan mapping*, accessed online, May 2026

Queensland Department of State Development, Infrastructure, Local Government and Planning (DSDILGP) 2026, *State Planning Policy Interactive Mapping System*, accessed online, May 2026

Queensland Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development (DNRMMRRD) 2026, *Queensland Spatial Data Catalogue*, accessed online, May 2026

Queensland Department of Resources (DR) 2026, *Queensland Globe*, accessed online, May 2026

Queensland Department of State Development, Infrastructure, Local Government and Planning (DSDILGP) 2026, *State Planning Policy Interactive Mapping System*, accessed online, May 2026

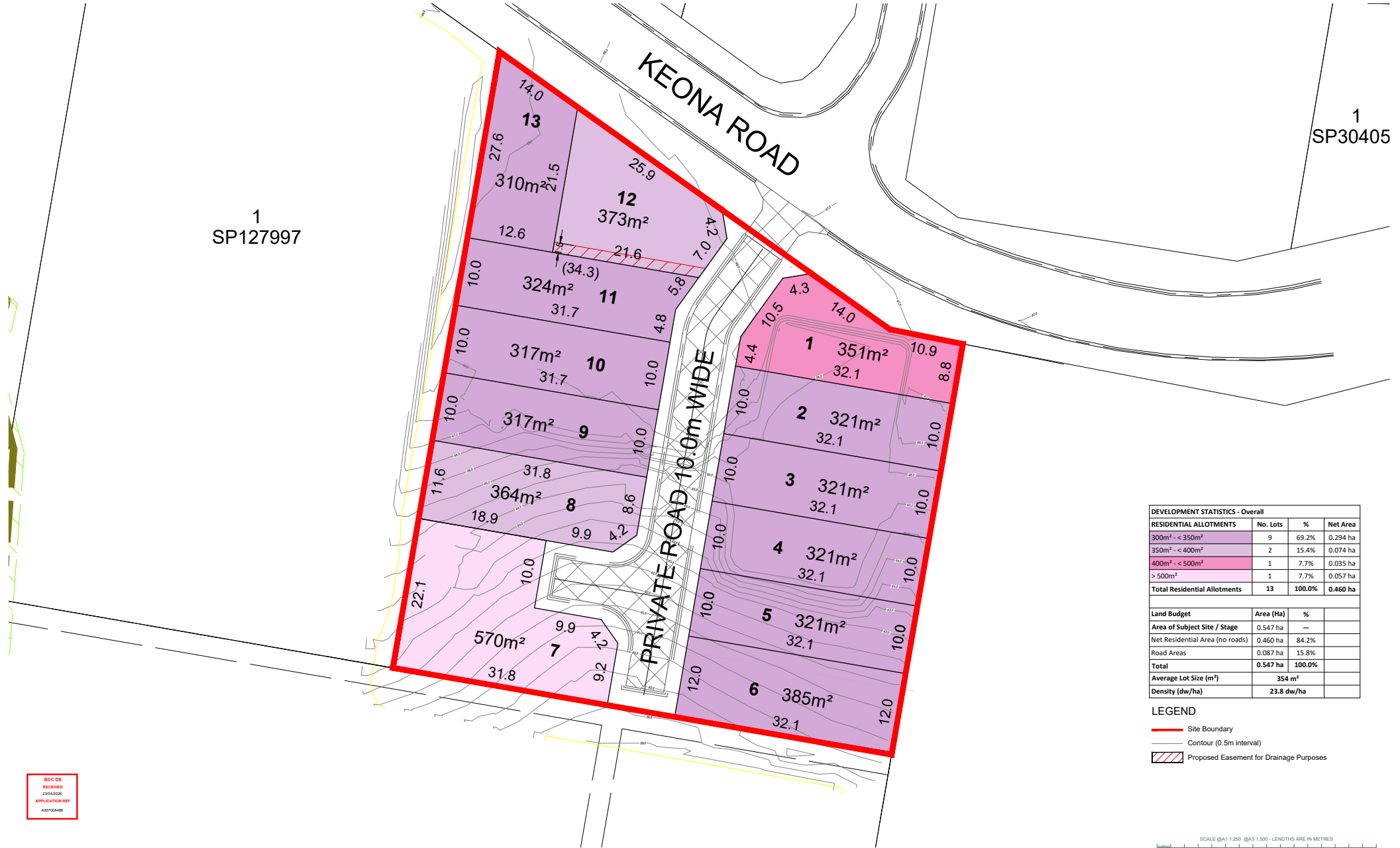
Queensland Department of State Development, Manufacturing, Infrastructure and Planning (DSDMIP) 2019, *Natural Hazards, Risk and Resilience – Bushfire, State Planning Policy – State interest guidance material*, December 2019

Queensland Fire and Emergency Service (QFES) 2019, *Bushfire Resilient Communities Technical Reference Guide for the State Planning Policy State Interest ‘Natural Hazards, Risk and Resilience – Bushfire’*, October 2019

Queensland Fire Department (QFD) 2025, *Bushfire Resilient Communities MapViewer – User Guide*, Queensland Fire Department, January 2025

## Appendix 1 Site plan

# PROPOSAL PLAN



1  
SP127997

1  
SP30405

DEVELOPMENT STATISTICS - Overall			
RESIDENTIAL ALLOTMENTS	No. Lots	%	Net Area
300m <sup>2</sup> - < 350m <sup>2</sup>	9	69.2%	0.294 ha
350m <sup>2</sup> - < 400m <sup>2</sup>	2	15.4%	0.074 ha
400m <sup>2</sup> - < 500m <sup>2</sup>	1	7.7%	0.035 ha
> 500m <sup>2</sup>	1	7.7%	0.057 ha
<b>Total Residential Allotments</b>	<b>13</b>	<b>100.0%</b>	<b>0.460 ha</b>

Land Budget	Area (Ha)	%
Area of Subject Site / Stage	0.547 ha	—
Net Residential Area (no roads)	0.460 ha	84.2%
Road Areas	0.087 ha	15.8%
<b>Total</b>	<b>0.547 ha</b>	<b>100.0%</b>
Average Lot Size (m <sup>2</sup> )	354 m <sup>2</sup>	
Density (dw/ha)	23.8 dw/ha	

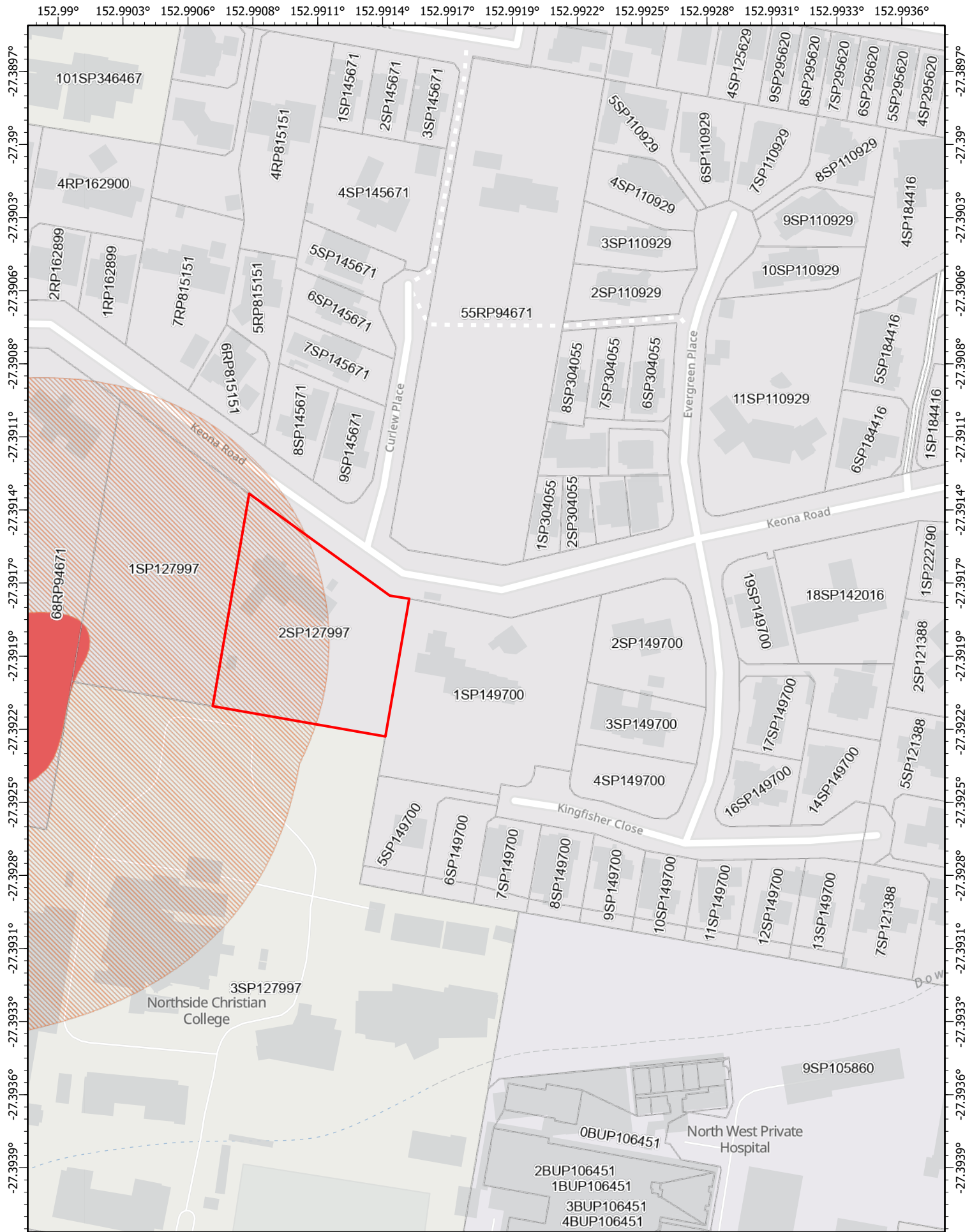
- LEGEND**
- Site Boundary
  - Contour (0.5m interval)
  - ▨ Proposed Easement for Drainage Purposes



BCC DS  
RECEIVED  
29/04/2024  
APPLICATION REF  
A00700480



## Appendix 2 Bushfire prone area map



### State Planning Policy IMS - Export Map

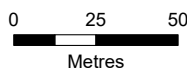
Making or amending a local planning instrument and designing land for local infrastructure

Date: 27/05/2026

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Scale: 1:2,300



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 Cadastre

Bushfire prone area

CLASS

 High Potential Bushfire Intensity

 Potential Impact Buffer

## State Planning Policy IMS - Export Map

Making or amending a local planning instrument and designing land for local infrastructure

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