

# BUSHFIRE HAZARD ASSESSMENT REPORT



**552 - 558 CHAMBERS FLAT ROAD, LOGAN RESERVE**

**Prepared for MBDEV B Pty Ltd**

# Document Control

RFA22-074

QUALITY ASSURANCE STATEMENT				
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			Name	Date
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**Cover Photo:** View to the north over the site 552 – 558 Chambers Flat Road, Logan Reserve



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## 1 INTRODUCTION

This Bushfire Hazard Assessment has been prepared for MBDEV B Pty Ltd to inform the development of 552 - 558 Chambers Flat Road, Logan Reserve in relation to bushfire issues within and adjacent to the site.

Both the State Planning Policy and Local government Planning Scheme map surrounding vegetation as potential bushfire hazard with the potential impact buffer area extending over a portion of the property.

A site inspection was undertaken on the 9 December 2022 to inform this report.

## 2 PROPOSAL

MBDEV B PTY LTD has submitted a development application for a Material Change of Use (MCU) from Emerging Community to Residential uses and a Reconfiguration of Lot (ROL) for a 1 into 41 residential lots subdivision with internal public roads way, a drainage reserve and separate Stormwater management infrastructure in a bio-basin.

Access will be via new internal roadways with connectivity to future development over land to the north and east. There will be no direct access to Chambers Flat Road, with the western half of the lot remaining as an open space area.

## 3 SITE DESCRIPTION

<b>Applicant name</b>	<b>MBDEV B PTY LTD</b>
<b>Site address</b>	552 - 558 Chambers Flat Road Logan Reserve
<b>Property Description</b>	Lot 5 RP97736
<b>Site area</b>	3.49 ha
<b>Local Government Area</b>	Logan City Council
<b>Zone and precinct</b>	Emerging Community

### 3.1 GENERAL DESCRIPTION

The land is cleared except for a few landscape amenity trees around an existing dwelling house and some wattle regrowth in the western portion of the land. There is a large farm dam towards the front of the property, which is part of a larger network of interconnected dams to the north and south.

The property has frontage to Chambers Flat Road at the western boundary with access to the site by a dirt driveway parallel to the southern boundary. To the north, south and east area neighbouring rural residential properties. The property abutting the northern boundary is largely clear of vegetation and contains large, shaded nursery areas covering most of the property.

The southern boundary is shared with two 20-metre-wide access tracks to battle axe lots to the east. Further to the south is a vegetated rural lot. There is a 40-metre separation to the vegetation to the south.

The Qld Fire Department, Bushfire Resilient Communities, bushfire characteristic mapping maps a Forest Fire Dange Index (FFDI) of 54 over the land and surrounding areas. Vegetation in neighbouring lands are mapped as Vegetation Hazard Class (VHC) 9.2 - Moist to dry eucalypt woodland on coastal lowlands and ranges.



**Figure 1:** Nearmap aerial imagery of 552 - 558 Chambers Flat Road dated 24 November 2022.

## 3.2 LANDFORM

The land is relatively flat with a slope of less than 2 degrees from east to west into the waterway way depression. The surrounding area is located in a flood plain and is low lying between 16m and 20m AHD. There are no significant topographical features that will influence bushfire behaviour.

## 3.3 VEGETATION

The State's mapping within Queensland Globes Regulated Vegetation Overlay (**Map 1**) maps vegetation within and adjacent to the site as Category X area.

## 4 BUSHFIRE HAZARD MAPPING

### 4.1 LOCAL

The Logan City Council Planning Scheme is the same as the State Planning Policy, Natural Hazards, Risk and Resilience Bushfire Hazard map. The Logan City Bushfire Hazard Overlay map (see Map 3) maps a polygon of Medium potential bushfire hazard class over the property to the south which causes a small area of potential impact buffer to extend into the land.

### 4.2 STATE

The State Planning Policy Natural Hazards Risk and Resilience Bushfire Hazard mapping (see Map 4) maps a polygon of Medium potential bushfire hazard class over the property to the immediate south (Lot 2 on RP97736) with the 100m potential impact buffer extending into the southern portion of the land.

Both of the mapping of medium potential bushfire hazards over vegetation is not supported by the ground truthing due to vegetation structure and patch or corridor size.

## 5 FINDINGS

The site has historically been used for growing vegetables and is largely cleared of vegetation. The area around the dam and dwelling house has some regrowth and weedy vegetation, however this area will be cleared as a consequence of development. Where an open space area will be retained at the front of the development, within the existing overflow waterway corridor, and proposed detention basin, the total area will be less than 1ha in size.

Logan Planning Scheme General Planning Layout (see Figure 2) suggests an environmental corridor may be located on the eastern side of Chambers Flat Road, within the flood prone areas. However, this corridor is less than 100m wide and is unlikely to be returned to a fully developed regional ecosystem within the future given the density of residential development and proximity to a main road subject to widening to accommodate the emerging community.

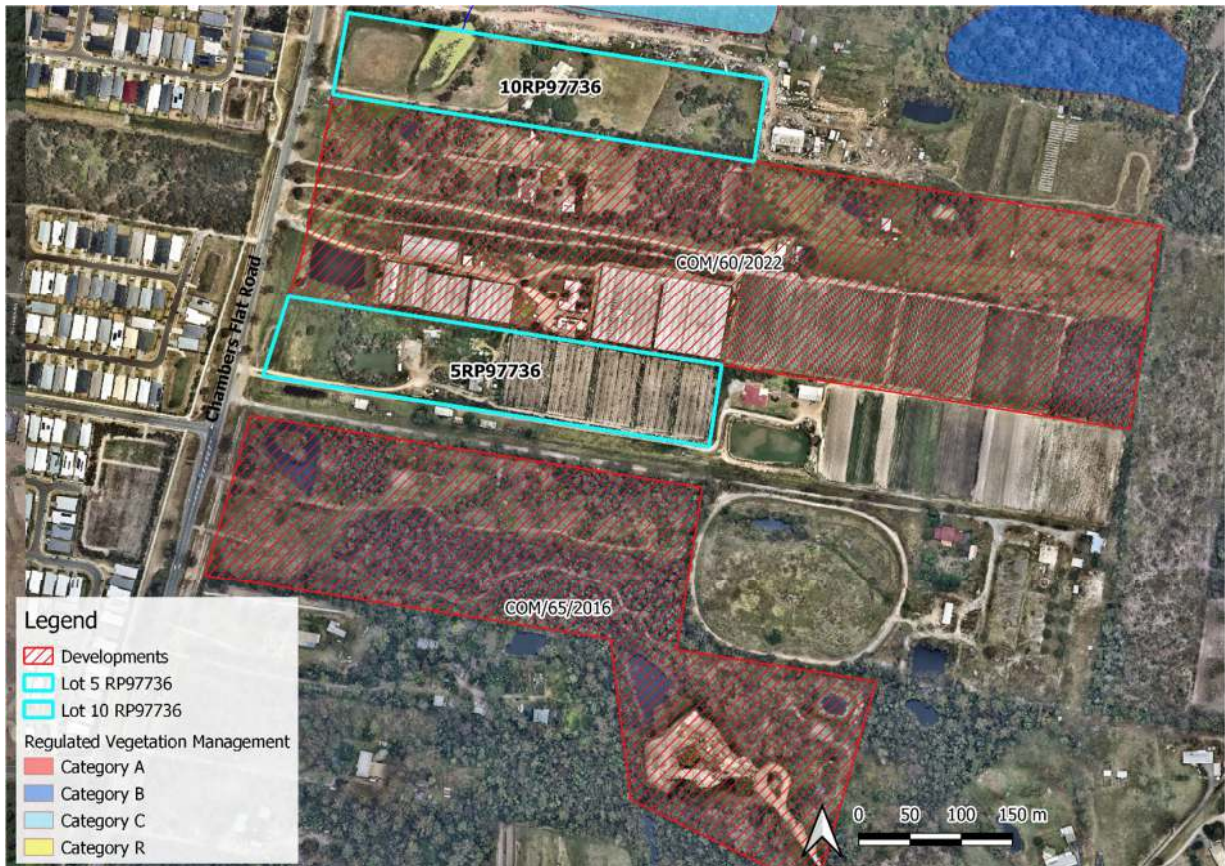


**Figure 2:** Extract from Logan Planning Scheme 2015 General Planning Layout - FIG-7.2.1.8 Logan Reserve GPL areas

## 5.1 DEVELOPMENT CHANGES TO BUSHFIRE HAZARD

Surrounding the proposed development site is a much larger area of new residential development within the Emerging Community Zone. Neighbouring land to the south is subject to an approved development (COM/65/2016) a Reconfiguring a lot for 165 residential lots. This development covers Lot 1 & 2 on RP 97736 and Lot 6 & 7 on RP182452 (Figure 3). This will effectively remove all mapped hazardous vegetation within 100m to the south.

The lands to the north has been developed to lot and road completion stage as well as the stormwater management infrastructure. It is expected that this development will see new residential dwellings constructed upon the land in the near future.



**Figure 3:** Map of the proposed development site at 552 – 558 Chambers Flat Road with neighbouring development to the south and north (red hash).

## 5.2 BUSHFIRE HAZARD ASSESSMENT

The land that remains outside of the proposed and approved developments is rural in nature. Land to the east is cultivated and appears from aerial imagery to be an extensive nursery or crop land. Similarly land to the southeast, abutting new developments to the south, is grazing land and has been used for this purpose for a number of years. The appropriate Vegetation Hazard Class assigned to rural areas, where there is minimal woody vegetation is VHC 40.4 – Continuous low grass or tree cover. Areas of woody vegetation are isolated small patches, with no connectivity to larger areas of vegetation capable of supporting a bushfire.

Using methodology available in *Leonard, Newnham, Opie, & Bianchi, (2014)* and *Leonard & Opie, (2017)* vegetated areas smaller than 1ha or less than 100m wide will not reach a fireline intensity greater than 4000kW/m and will not be a significant threat to life or property. Furthermore, where the vegetation is disrupted by non-flammable surfaces such as roadways, and low hazard or discontinuous fuel sources such as maintained grassland, the potential bushfire intensity is reduced.

The bushfire prone area calculations (Table 1) demonstrate that the areas not subject to new residential developments have an estimated potential fireline intensity of 961 kW/m and can be considered not a bushfire prone area.

**Table 1:** Fire line intensity calculation for vegetation to the south and west of the development site (Leonard, Newnham, Opie, & Bianchi, 2014).

Vegetation Hazard Class (VHC)	Potential Fuel Load (t/ha)	Potential Fire Weather Severity (FFDI)	Slope under hazardous vegetation (deg)	Potential Fireline Intensity (kw/m)	Potential Bushfire Hazard Class No	Potential Bushfire Hazard Class
40.4 Continuous low grass or tree cover	5	54	2	961	2	Not BPA
Input fields		Calculated fields				

## 6 CONCLUSIONS

The proposed development site is found to be **not in a bushfire prone area** based on the following conclusions:

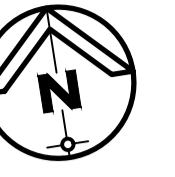
1. Vegetation mapped as hazardous to the south of the proposed development will be removed as a consequence of neighbouring approved development (COM/65/2016).
2. The surrounding land use is rural in nature and is deemed a low bushfire prone area
3. Construction should be to an equivalent **Bushfire Attack Level Rating (BAL) Low** and not required to comply with AS3959-2018 Construction of buildings in bushfire prone areas.

A response to the Planning Scheme bushfire overlay code is attached in Appendix I.

## 7 REFERENCES

- Leonard, J., & Opie, K. (2017). *Estimating the potential bushfire hazard of vegetation patches and corridors*. CSIRO.
- Leonard, J., Newnham, G., Opie, K., & Bianchi, R. (2014). *A new methodology for state-wide mapping of bushfire prone areas in Queensland*. Australia: CSIRO.
- QFES. (Oct 2019). *Bushfire Resilient Communities Technical Reference Guide for the State Planning Policy State Interest 'Natural Hazards, Risk and Resilience - Bushfire'*. State of Queensland.
- Weir, I. (2018). AS 3959:2018: Construction of buildings in bushfire-prone areas (Fourth edition) Standards Australia. *AS3959:2018*. Standards Australia, Australia.

## 8 DEVELOPMENT PLANS



CHAMBERS FLAT ROAD



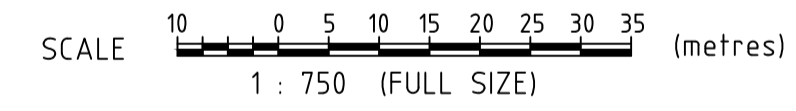
5  
RP97736

4  
RP97736

3  
RP97736

2  
RP97736

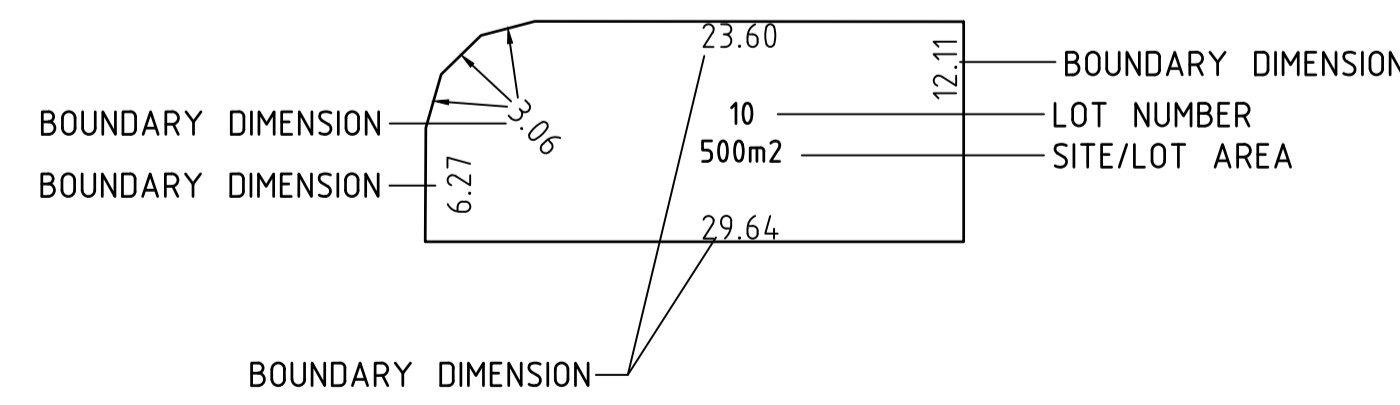
MASTER PLAN VILLAGE PRECINCT



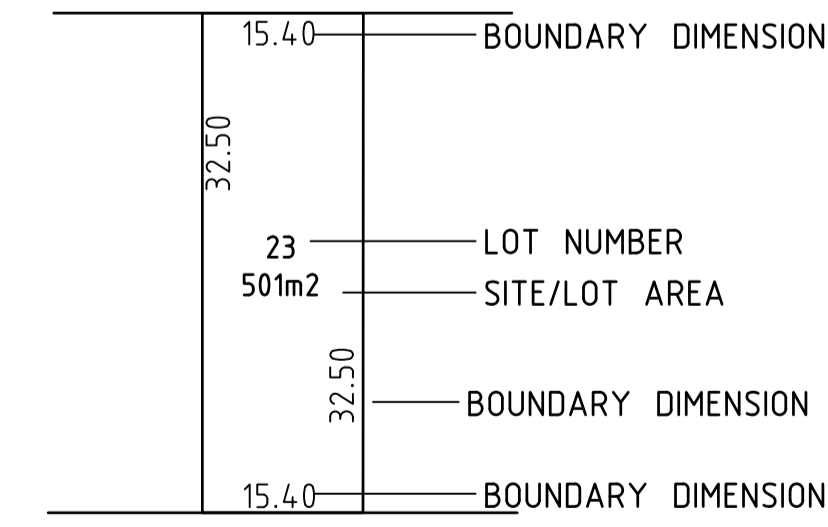
DEVELOPMENT SUMMARY

TOTAL SITE AREA:	3.489 ha
TOTAL AREA OF NEW ROAD:	0.609 ha
LENGTH OF NEW ROAD:	363.19 meters
TOTAL AREA ROAD PAVEMENT:	0.275 ha
TOTAL AREA OF BASIN :	0.19 ha
NET DEVELOPMENT AREA :	2.101 ha
NET SITE AREA DENSITY:	19.51 DWELLINGS/ha
GROSS SITE DENSITY:	11.75 DWELLINGS/ha

CORNER ALLOTMENT



STANDARD ALLOTMENT



LEGEND:

- TYPICAL ALLOTMENTS
- CORNER ALLOTMENTS
- DEVELOPMENT BOUNDARY

LOT FRONTAGE WIDTH BREAKDOWN

FRONTAGE WIDTH	No. ON LOTS
15-15.49m	30
16-16.99m	7
≥18m	4
<b>TOTAL</b>	<b>41</b>

YIELD BREAKDOWN

LOT SIZE	No. ON LOTS
500-549m2	37
550-599m2	4
<b>TOTAL</b>	<b>41</b>

PRELIMINARY

PARK LANE STAGE 6 - 552 CHAMBERS FLAT ROAD  
 LOT 5 RP178746  
 552-558 CHAMBERS FLAT ROAD  
 FOR  
 MB DEV B PTY LTD

VER.	DESCRIPTION	DATE
F	LAYOUT AMENDED	18.01.25
E	LAYOUT AMENDED	02.09.24
D	RFI AMENDMENTS	28.03.23
C	LAYOUT AMENDED	06.03.23
B	COLLECTOR ROAD ADDED	10.10.22
A	ISSUE FOR INFORMATION	01.07.22

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 ABN 76 166 942 365

PROJECT:  
 PARK LANE STAGE 6  
 552 CHAMBERS FLAT ROAD  
 PRELIMINARY CIVIL  
 ENGINEERING DESIGN

DRAWING TITLE :  
 MASTER PLAN  
 VILLAGE PRECINCT

DEVEL. APPLIC. No.:	DATE: 18.01.2025
PROJECT LEADER: FRASER LUCAS	DESIGNER: TG
DRAFTSPERSON: TN	CHECKED: FRASER LUCAS
APPROVED FOR AND ON BEHALF OF BURCHILLS ENGINEERING SOLUTIONS ABN 76 166 942 365	
RPEQ:	
SCALE:	DATUM: AHD
PROJECT No.: BE220314	FULL SIZE: A1
DRAWING No.: SK01	VERSION: F

A1 ORIGINAL SIZE BEFORE REDUCTION

## 9 APPENDICES

### 9.1 APPENDIX I - OVERLAY CODES

#### 8.2.3.3 Assessment benchmarks for assessable development and requirements for accepted development

#### Part A - Requirements for accepted development (subject to requirements) and assessment benchmarks for assessable development

Table 8.2.3.3.1 - Bushfire hazard overlay code: accepted development (subject to requirements) and assessable development

Performance outcomes	Acceptable outcomes	Comments
<b>For accepted development (subject to requirements) and assessable development</b>		
<b>Location, design and siting of development</b>		
<p><b>PO1</b></p> <p>Development is designed to:</p> <ol style="list-style-type: none"> <li>minimise risk of bushfire hazard;</li> <li>provide safe premises;</li> <li>create efficient emergency access for fire-fighting and other emergency vehicles.</li> </ol> <p>Note - Planning scheme policy 6 - Management of bushfire hazard provides guidelines on how to achieve this outcome.</p>	<p><b>AO1</b></p> <p>Development:</p> <ol style="list-style-type: none"> <li>does not increase the number of persons living in, or lots in, the Bushfire hazard area identified on Bushfire hazard overlay map OM-03.00; or</li> <li>is on a site that a bushfire hazard assessment prepared in accordance with the methodology in Planning scheme policy 6 - Management of bushfire hazard determines is of low bushfire hazard.</li> </ol>	<p><b>R1</b></p> <p>Development is located in a low bushfire hazard area. See Attached report by Rob Friend &amp; Associates (dated 15 May 2023 v2)</p> <p>No further response to the overlay coded is required.</p>

## 9.2 APPENDIX II – MAPPING

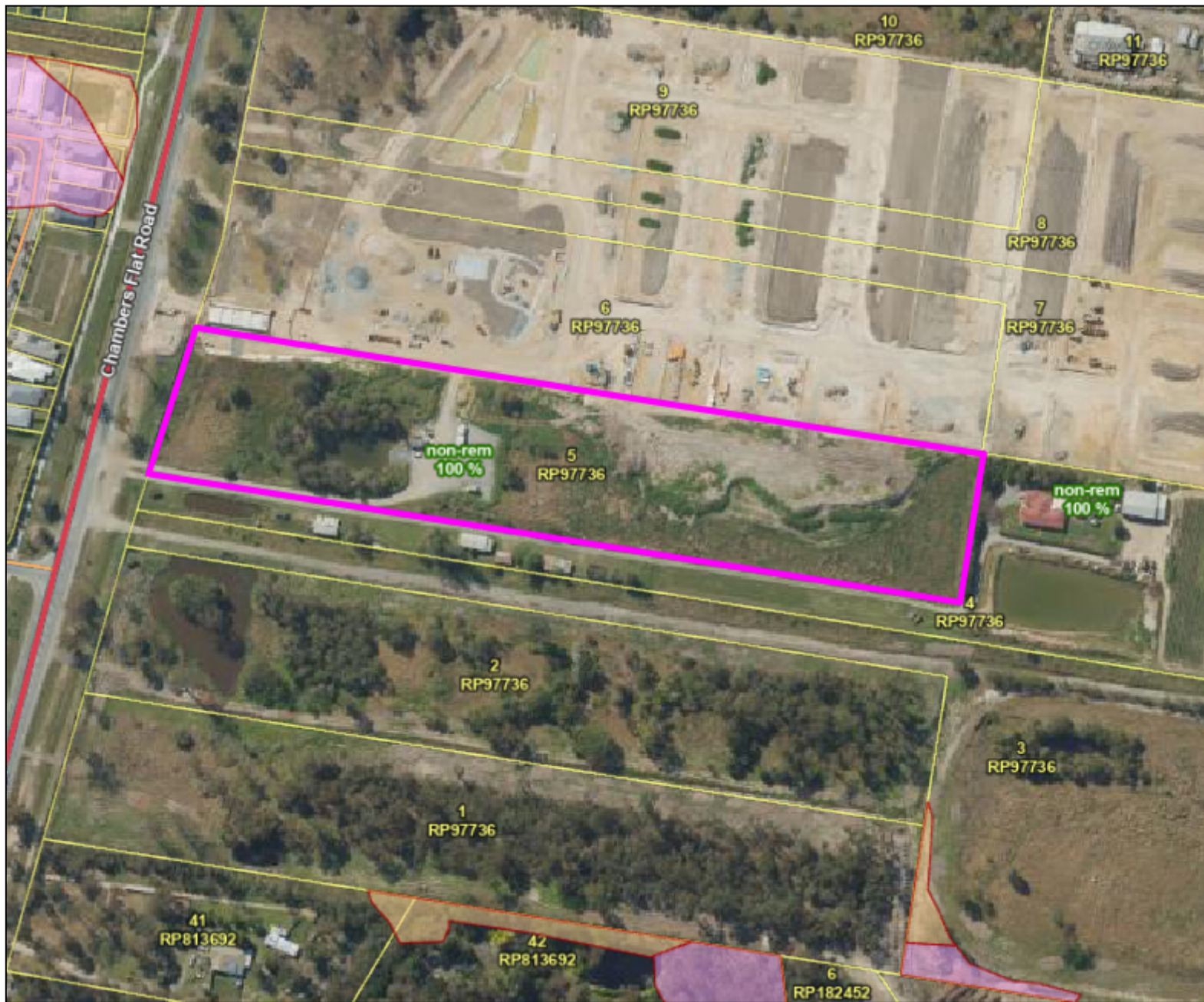
### Map 1 - Qld Globe Regulated Vegetation and Regional Ecosystem Mapping

# 552-558 Chambers Flat Road, Logan Reserve

RVMA & REs

27°42'55"S 153°5'29"E

27°42'55"S 153°5'53"E



27°43'12"S 153°5'29"E

27°43'12"S 153°5'53"E



Legend located on next page



Scale: 1:3500

Printed at: A4

Print date: 7/2/2025

Not suitable for accurate measurement.  
Projection: Web Mercator EPSG 102100 (3857)

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**Queensland Government**

Department of Natural Resources and Mines,  
Manufacturing, and Regional and Rural Development

# 552-558 Chambers Flat Road, Logan Reserve

RVMA & REs

 Legend

### Vegetation management regional ecosystem map labels

Category A or B area containing endangered



Category A or B area containing of concern



Category A or B area that is least concern



Category C or R area containing endangered



Category C or R area containing of concern



Category C or R area that is of least concern



### Land parcel



Land parcel label - gt 10 ha

Land parcel label - gt 1000 ha

### Places: My Places(1)



### Railway stations



### Railways



### Roads and tracks



### Tunnels



 Attribution

Maxar

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**Map 2 – Bushfire Resilient Communities – Vegetation Hazard Class & FFDI**

# 552-558 Chambers Flat Rd, Logan Reserve



07/02/2025, 15:15:27

Base Parcels Only

Broad Vegetation Hazard Class Dynamic

BVG 9-15 Eastern eucalypt woodlands to open forests

BVG 16 Eucalypt open forests to woodlands on floodplains

BVG 38 Cropping and horticulture

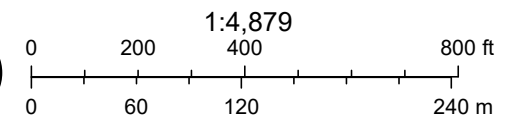
BVG 40 Low grass or tree cover in rural areas

BVG 41 Low grass or tree cover in built-up area

BVG 42 Nil to very low vegetation cover

BVG 43 Waterbodies

Regional ecosystems V13 (REM and HVR)



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**Map 3 - Logan City Planning Scheme Bushfire Hazard Overlay Mapping**



**Map 4 – State Planning Policy, Natural hazards, Risk and Resilience - Bushfire Hazard Map**



153.0922° 153.0925° 153.0927° 153.093° 153.0933° 153.0936° 153.0938° 153.0941° 153.0944° 153.0947° 153.0949° 153.0952° 153.0955° 153.0958° 153.0961° 153.0963° 153.0966° 153.0969° 153.0972° 153.0975° 153.0977°  
 -27.7162° -27.7164° -27.7167° -27.717° -27.7173° -27.7175° -27.7178° -27.7181° -27.7184° -27.7187° -27.7189° -27.7192°

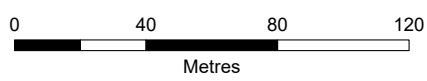
### State Planning Policy IMS - Export Map

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

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Scale: 1:2,300



Date: 07/02/2025

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 Cadastre

Bushfire prone area

CLASS

 Medium Potential  
Bushfire Intensity

 Potential Impact Buffer

## State Planning Policy IMS - Export Map

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### 9.3 APPENDIX III - PHOTOGRAPHIC PLATES



**Photographic Plate 1** View to the northeast over the proposed development site. The shade areas and sheds to the rear of frame are in the neighbouring property to the north.



**Photographic Plate 2** View to the west over the proposed development site. The dwelling house and vegetation will be removed as a consequence of development.



**Photographic Plate 3** View to the southwest over the southern boundary. The cleared area to the left of frame is the access tracks to battle axe lots at the rear of the proposed development site. Vegetation to the rear and left of frame (mapped as hazardous) will be removed for a neighbouring residential development to the south.