

APRIL 2024

ADDENDUM BUSHFIRE HAZARD ASSESSMENT

PP2023-2403

PLANNING PROPOSAL FOR 322 STUARTS POINT ROAD, YARRAHAPINNI

*Bushfire Hazard Assessment – Stuarts Point Road, Yarrahapinni – Rezoning*

*Prepared by GeoLink Ref 4006-1033*

The attached Bushfire Hazard Assessment by GeoLink was prepared to support this Planning Proposal in November 2022 and updated February 2023. The intended outcome of the proposal at the time was a Rural Residential subdivision of 24x1 ha allotments and 1 residue farm allotment.

The resultant Gateway Determination Reference PP2023-2403 dated 26 February 2024, issued by NSW Department of Planning, Housing & Industry, includes the following condition requiring amendment to the proposal as follows:

- remove the R5 Large Lot Residential zone and the corresponding 1ha lot size on the eastern side of the creek;
- update the anticipated lot yields; and
- update details on the site's flood mapping, PMF levels, confirmation that all future building envelopes can be located above the PMF and consideration of evacuation utilising Council's latest flooding information.

The intended outcome plans supporting the Planning Proposal have been amended to satisfy the Gateway conditions and the following addendum provides the necessary adjustments to the GeoLink February 2023 Bushfire Hazard Assessment for the proposal.

The Department's amendments have reduced the number of allotments from 25 to 17 and removes a proposed road creek crossing. As such the assessed potential Bushfire Hazard risk is lessened in relation to the omission of any allotments east of the creek crossing and a reduction in the number of allotments served by the proposed internal access roads.

#### ADDENDUMS TO THE ATTACHED BUSHFIRE HAZARD ASSESSMENT

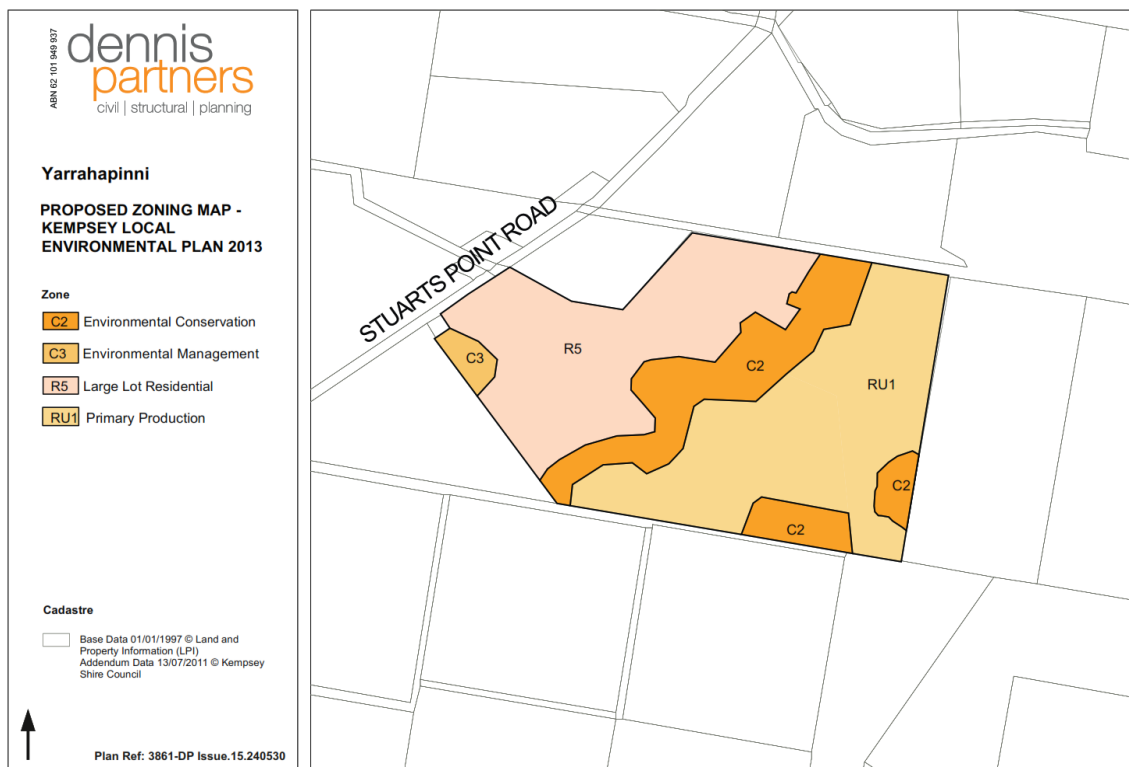
Bushfire Assessment	Hazard	Page No.	Addendum or comment
Executive Summary		Page iii	Reference to 25 lots to be replaced with reference to 17 lots. Reference to APZ for Lot 25 should be APZs for Lot 17.
Section 1.1 Scope and Purpose		Page 1	Reference to 25 lots to be replaced with reference to 17 lots.



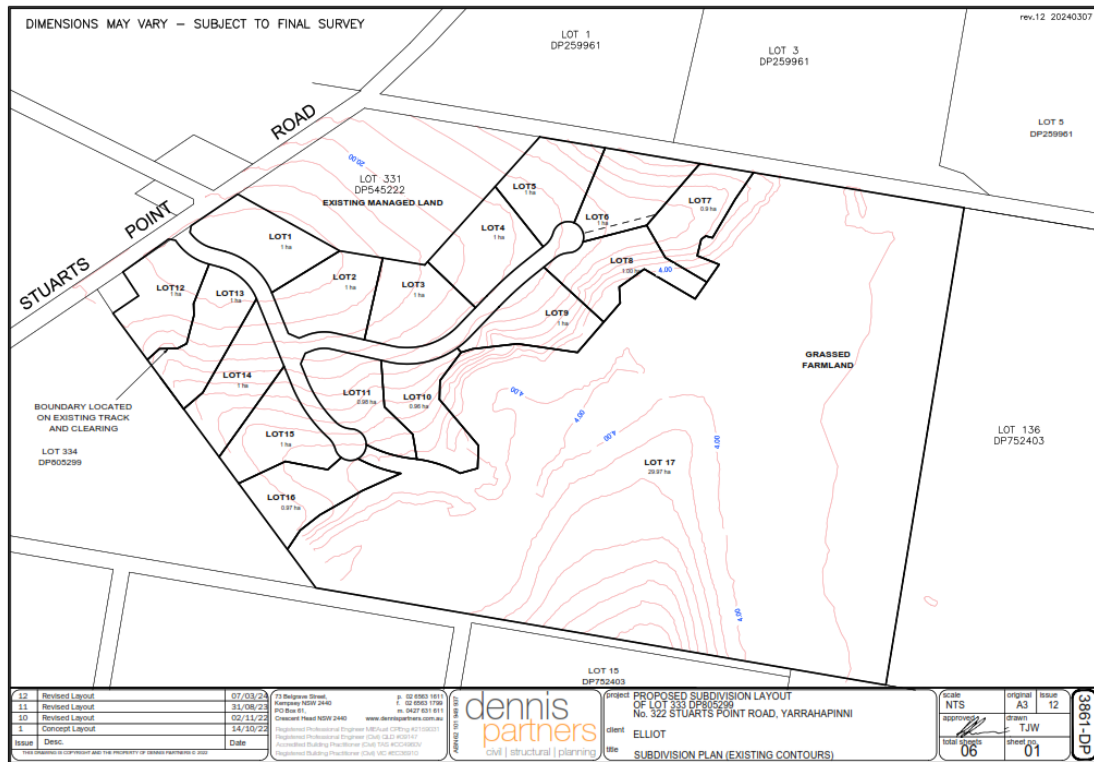
Section 2.2 Proposed Development	Page 6	Reference to 25 lots to be replaced with reference to 17 lots.
Section 4	Page 12	Reference to 25 lots to be replaced with reference to 17 lots.
Section 5.1 Asset Protection Zones	Page 18	Supplement with the map below for 17 lots.
Section 5.2 Access	Page 19 4 <sup>th</sup> paragraph	Delete "to 25".
Table 5.3	Page 20	Access egress roads reduced in length and no longer cross the creek. Lots 17 – 25 now only a single consolidated lot east of the creek referred to as Lot 17.
Table 5.3	Page 22	Remove reference to Lot 25. Retain comments on Lot 7.
Section 5.2.1.2 Drainage Corridor Vegetation	Page 23	1st paragraph – remove last sentence there are no longer any allotments proposed east of the drainage corridor. 5 <sup>th</sup> paragraph – replace reference "Lot 25" to "Lot 17".
Section 2.1.3.	Page 24	Turning circle adjacent forest vegetation no longer in the proposal. 12m radius turning circle now west of the creek.
Section 6.1	Page 27	3 <sup>rd</sup> dot point, amend Lot 25 to read Lot 17.
Appendix A		Supplement with the revised zone map below with not R5 east of the creek.
Appendix B		Supplement with the map below revised plan of subdivision map and subdivision with aerial imagery below, with no 1 ha allotments east of the creek.



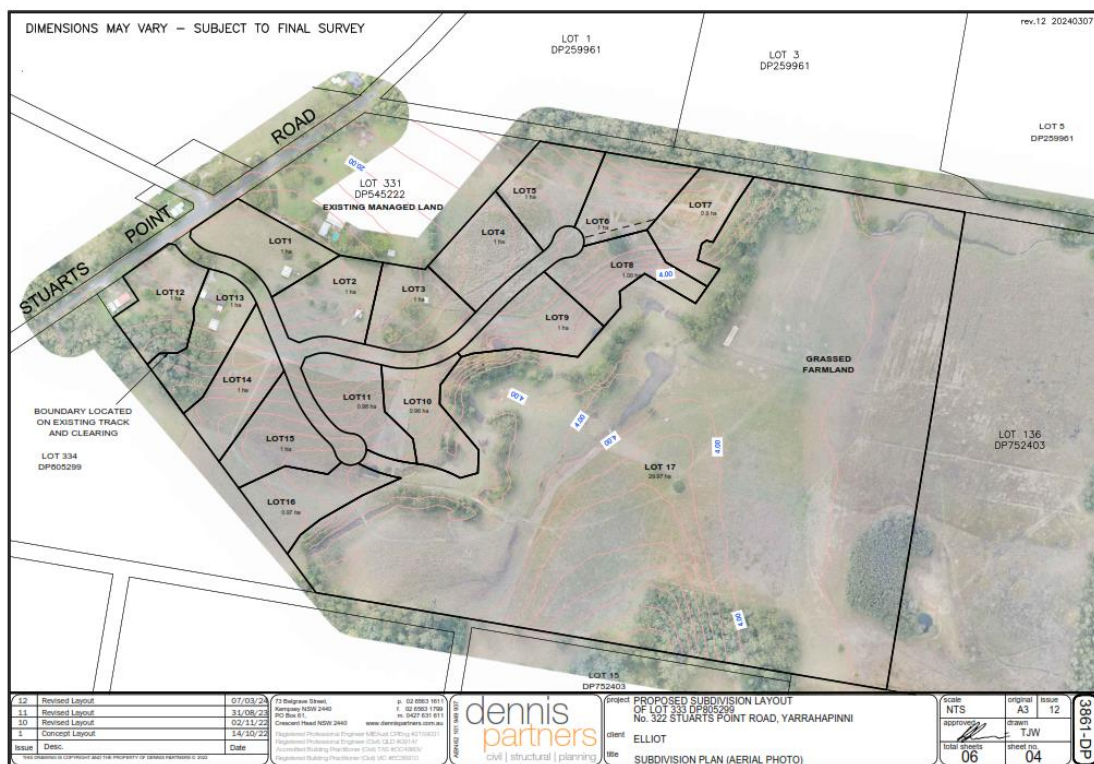
Supplementary plan for Illustration 3.1



Supplementary plan for Proposed Zone boundaries



Supplementary plan for Proposed Subdivision Layout



Supplementary plan for Proposed Subdivision Layout with aerial

The Bushfire Fire Hazard report recommendations remain the same except for the 3<sup>rd</sup> dot point recommendation where the APZ is to be created of Lot 17, there is no longer any Lot 25.

Yours sincerely



Geraldine Haigh  
Director & Senior Planner  
GEM Planning Projects

# Bushfire Hazard Assessment

## Rezoning and Large-Lot Residential Subdivision – Stuarts Point Road, Yarrahapinni



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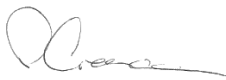


## Bushfire Disclaimer

This report in no way suggests or guarantees that a bushfire or grass fire will not occur at the Project Site and / or impact the proposed development. Furthermore, the measures recommended in this report do not guarantee that loss of life, injury and / or property damage will not occur during a bushfire or grass fire event. The severity and impact of a bushfire or grass fire event can be influenced by matters such as vegetation management, human behaviour and extreme weather conditions.

This report advises on matters published by the NSW Rural Fire Service in the guideline Planning for Bushfire Protection 2019 and other advice available from that organisation. Due consideration has been given to site conditions, the nature of the proposed development and to appropriate legislation and documentation available at the time of writing. The report is therefore current at the time of writing only.

### Certification

Name		Signature	Date
Prepared by	Kale Hardie-Porter		22/11/2022
Reviewed by	Paul Creenaune		25/11/2022
UPR	Description	Issued By	Date Issued
4006-1019	Version 1	KHP	28/11/2022
4006-1033	Version 2	KHP	03/02/2023



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# Executive Summary

This Bushfire Hazard Assessment report has been prepared to support a proposal to rezone 322 Stuarts Point Road, Yarrahapinni (Lot 333 DP 805299 only) from Zone RU1 Primary Production and RU2 Rural Landscape to Zone R5 Large Lot Residential, C2 Environmental Conservation, C3 Environmental Management and RU1 Primary Production under the provisions of Kempsey Local Environmental Plan 2013 to facilitate future subdivision into twenty-five (25) lots (min. 1ha). As the proposal involves subdivision of bushfire prone land, a Bushfire Safety Authority will be required from the NSW Rural Fire Service in accordance with s100B of the *Rural Fires Act 1997*.

This Bushfire Hazard Assessment has taken into consideration the proposed layout, hazard vegetation, effective slope, local bushfire risk conditions and Fire Danger Index for the site in accordance with Planning for Bushfire Protection 2019. This Bushfire Hazard Assessment demonstrates that bushfire protection measures are available and can be implemented to facilitate the proposed development.

The proposed subdivision stage is regarded as Integrated Development under Section 4.46 of the *Environmental Planning and Assessment Act 1979*.

The following table provides a summary of the recommendations with respect to Chapter 4 and Chapter 5 of Planning for Bushfire Protection 2019.

## Planning Proposal

The Planning Proposal be supported to enable the rezoning of Lot 333 DP 805299, 322 Stuarts Point Road, Yarrahapinni from Zone RU1 Primary Production and RU2 Rural Landscape to Zone R5 Large Lot Residential, C2 Environmental Conservation, C3 Environmental Management and RU1 Primary Production under the provisions of Kempsey Local Environmental Plan 2013 to facilitate future subdivision into twenty-five (25) lots (min. 1ha).

Bushfire Protection Measure	Recommendation (subdivision)
Asset Protection Zones	<ul style="list-style-type: none"><li>■ The Zone R5 land is to be managed as an Outer Protection Area (OPA) in accordance with PBP 2019 – Appendix A4.1.2 until such time as the individual lots are developed for residential purposes.</li><li>■ The area of Lot 13 around the existing dwelling be managed as an Inner Protection Area (IPA) in accordance with PBP 2019 – Appendix A4.1.1 for a distance of 25 m to the south-west and to the lot boundary in each other direction.</li><li>■ A restriction-to-use for the purpose of an asset protection zone be created over Lot 25 for a distance of 20 m either side of the road (drainage corridor), to be managed as an Inner Protection Area (IPA) in accordance with PBP 2019 – Appendix A4.1.1.</li></ul>
Access	<ul style="list-style-type: none"><li>■ Public roads comply with PBP 2019 – Table 5.3b (General Requirements and Non-Perimeter Roads), except that:<ul style="list-style-type: none"><li>○ an alternative access is not required and dead-end cul-de-sacs greater than 200 m in length are permitted; and</li><li>○ the cul-de-sac turning head on the south-east road be located 20 m from the adjacent unmanaged vegetation.</li></ul></li></ul>
Services - Electricity	<ul style="list-style-type: none"><li>■ Electricity supply is to comply with PBP 2019 – Table 5.3c.</li></ul>
Construction Standards	<ul style="list-style-type: none"><li>■ The existing dwelling be upgraded by installing non-combustible gutter and valley leaf guards.</li></ul>



# 1. Introduction

## 1.1 Scope and Purpose

GeoLINK has been engaged by the property owners, Geoffrey and Maryanne Elliott c/- Michael Elliott, to prepare a bushfire hazard assessment report with respect to Lot 333 DP 805299, 322 Stuarts Point Road, Yarrahapinni, referred to herein as ‘the site’. The report is required to support a proposal for rezoning of the site from Zone RU1 Primary Production and RU2 Rural Landscape to Zone R5 Large Lot Residential, C2 Environmental Conservation, C3 Environmental Management and RU1 Primary Production under the provisions of Kempsey Local Environmental Plan 2013 and to facilitate future subdivision into twenty-five (25) lots (min. 1ha).

This Bushfire Hazard Assessment will accompany the Planning Proposal at rezoning stage and the Statement of Environmental Effects (SEE) that informs the development application (DA) lodged under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) at DA stage for the proposed subdivision. As the proposal involves subdivision of bushfire prone land, a Bushfire Safety Authority (BFSA) will be required from the NSW Rural Fire Service (RFS) in accordance with s100B of the *Rural Fires Act 1997*.

This report serves to:

- identify the proposed development and site characteristics;
- determine and assess the bushfire threat; and
- recommend appropriate bushfire protection measures in accordance with Planning for Bush Fire Protection 2019 to minimise the impact of bushfire on the development.

## 1.2 Legislative Framework

The assessment contained in this report has been prepared with regard to:

- Environmental Planning and Assessment Act 1979 (EP&A Act);
- Environmental Planning and Assessment Regulation 2021;
- Rural Fires Act 1997;
- Australian Standard 3959:2018 ‘Construction of Buildings in Bushfire Prone Areas’;
- NASH Standard ‘Steel Framed Construction in Bushfire Areas (2014)’; and
- Planning for Bushfire Protection (PBP) 2019.

The *Rural Fires Act 1997* and the *Environmental Planning and Assessment Act 1979* (EP&A Act) institute a framework for environmental planning and assessment to consider bushfire hazard issues.

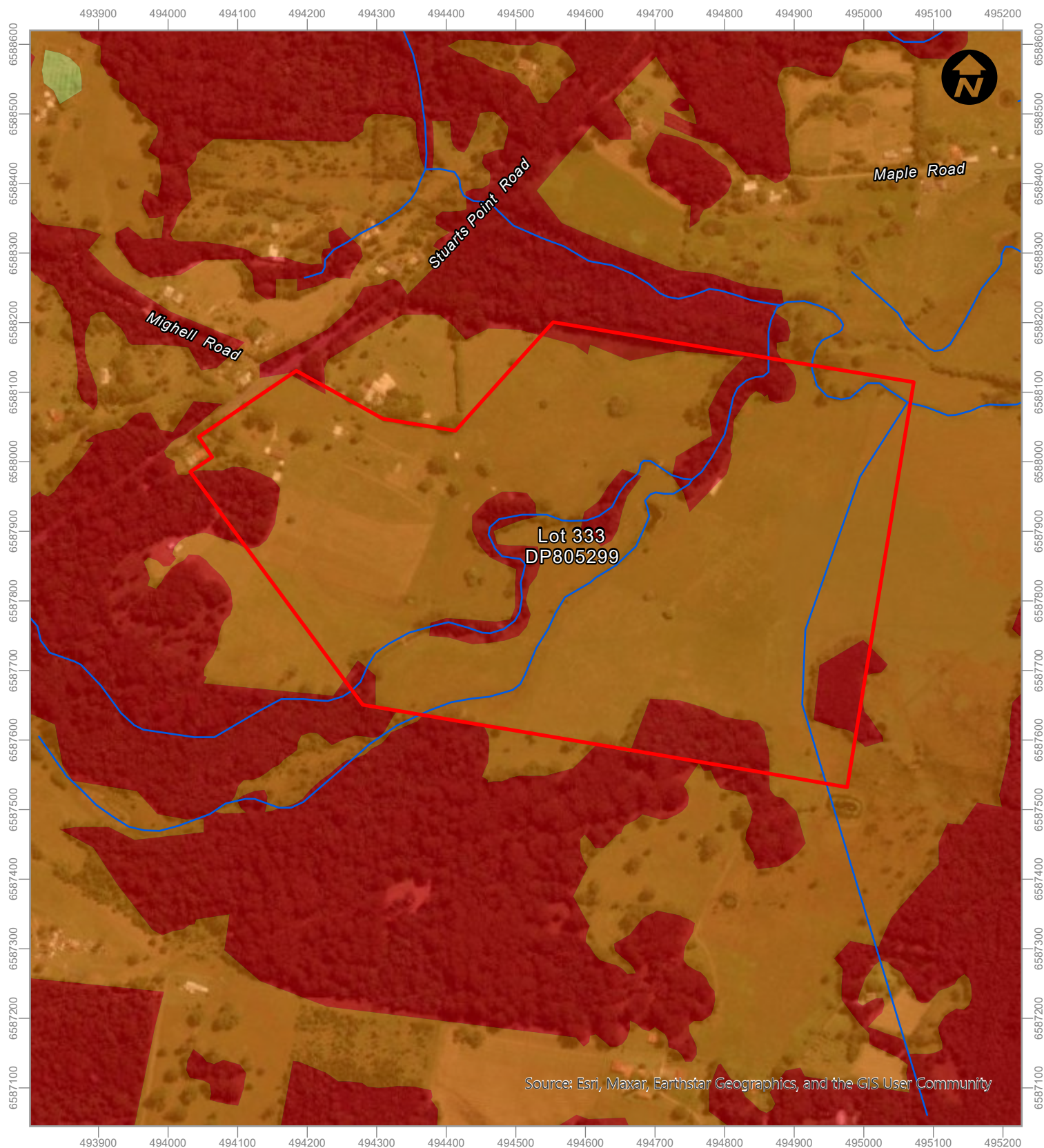
Direction 4.3 Planning for Bushfire Protection, issued by the Minister for Planning under Section 9.1(2) of the EP&A Act, must be considered with respect to the proposed rezoning of the site (refer to **Section 4.1**).

Section 100B of the *Rural Fires Act 1997* establishes that a ‘Bush Fire Safety Authority’ is required for *a subdivision of bush fire prone land that could lawfully be used for residential or rural residential purposes*. As the proposal involves subdivision of bushfire prone land that could be used for residential purposes, a Bushfire Safety Authority (BFSA) will be required from the NSW Rural Fire Service (RFS) at subdivision DA stage in accordance with s.100B of the *Rural Fires Act 1997*.



### 1.3 Bushfire Prone Land

Kempsey Shire Council's bushfire prone land mapping has been prepared as a requirement of Section 10.3 of the EP&A Act and in accordance with the NSW RFS 'Guideline to Bushfire Prone Land Mapping'. Council's bushfire prone land mapping indicates that the majority of the site is Category 3 vegetation, with Category 1 vegetation covering the pockets of forested vegetation within the site and on adjacent land (refer to **Illustration 1.1**).



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

#### LEGEND

- Site boundary
- Vegetation Category 1
- Vegetation Category 3
- Vegetation Buffer
- Watercourse

0 150 Metres

## Bushfire Prone Land - Illustration 1.1





## 2. Background

### 2.1 Location and Description

The site is located at 322 Stuarts Point Road, Yarrahapinni, approx. 24km south of Macksville (by road). Stuarts Point Road traverses from the Eungai Rail interchange on the Pacific Motorway in a north-easterly direction to Stuarts Point. The site is located approx. 3.4 km from the Pacific Motorway and 6.8 km from Stuarts Point (refer to **Illustration 2.1**).

The site has an area of approx. 45 ha and is zoned as RU1 Primary Production and RU2 Rural Landscape under the Kempsey Local Environmental Plan (LEP) 2013. The site is currently grazed by cattle and has an existing dwelling in the western portion of the site (refer to **Plate 2.1** and **2.2**). Areas of consolidated native vegetation occur mostly on the periphery of the site and along the waterway / ephemeral drainage line which traverse the centre of the site in a north-south alignment (refer to **Plate 2.3** and **2.4**). The topography of the site falls from the western boundary to the east towards the central waterway and also from the south-east to the north-west, towards the waterway. The eastern portion of the site is low lying and is not intended for future residential development.

**Illustration 2.1** and **2.2** provides an overview of the site locality and analysis of environmental features present on the site.

**Table 2.1** provides a quick reference for the location and description details of the site.

**Table 2.1 Site Detail Summary**

Site Details	
Lot/DP	Lot 333 DP 805299
Street Address	322 Stuarts Point Road Yarrahapinni
Elevation	5-27 m AHD
Site Area	Approximately 45 ha
Kempsey Local Environmental Plan 2013 Zoning	RU1 Primary Production; and RU2 Rural Landscape
Fire Weather Area	North Coast
Fire Danger Index (FDI)	80
Fire Control Centre	Lower North Coast (Kempsey)





**Plate 2.1** Grassland over the site of proposed lots



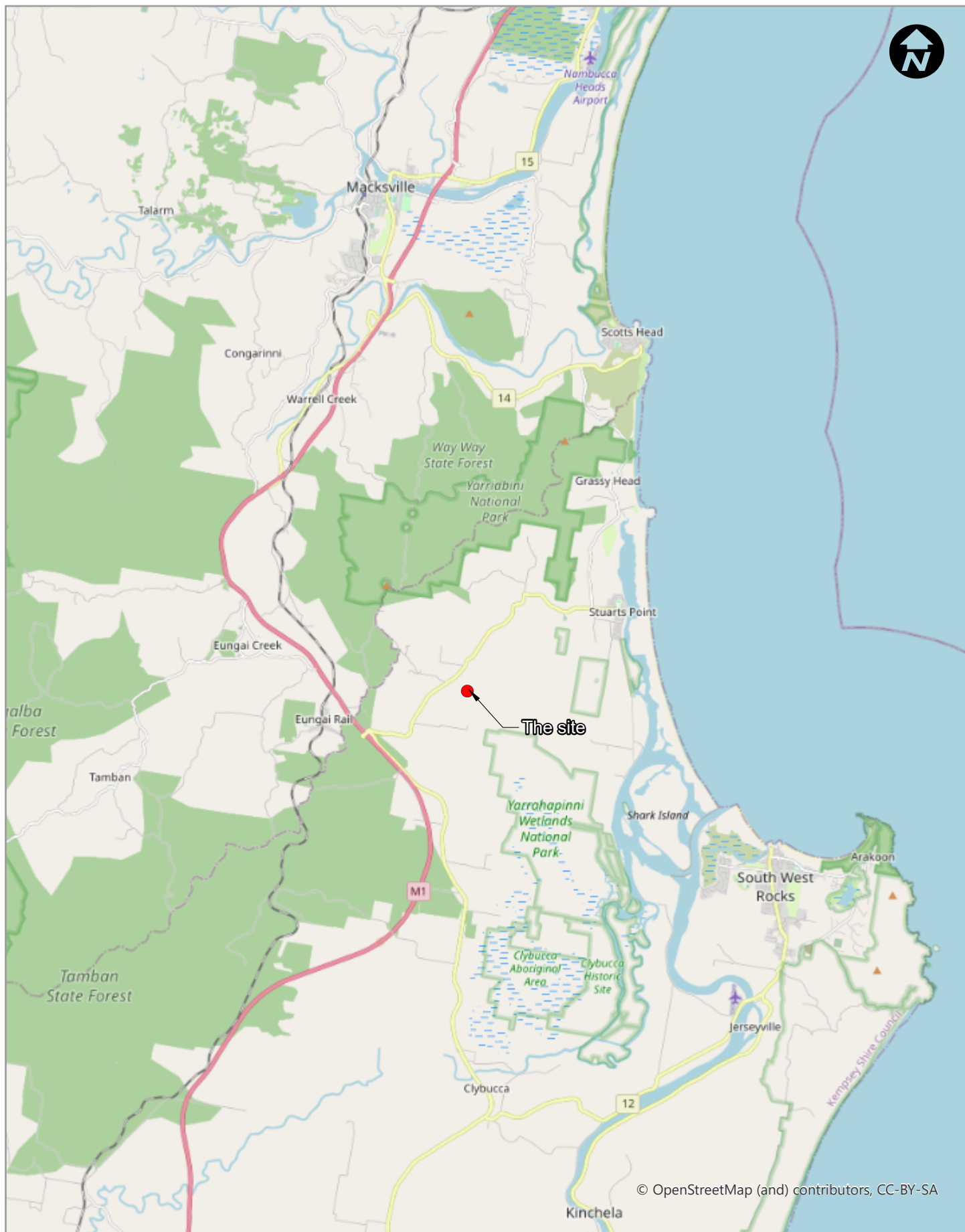
**Plate 2.2** Grassland sloping towards the drainage line



**Plate 2.3** Forest vegetation along the site perimeter



**Plate 2.4** Existing vegetation along the drainage line

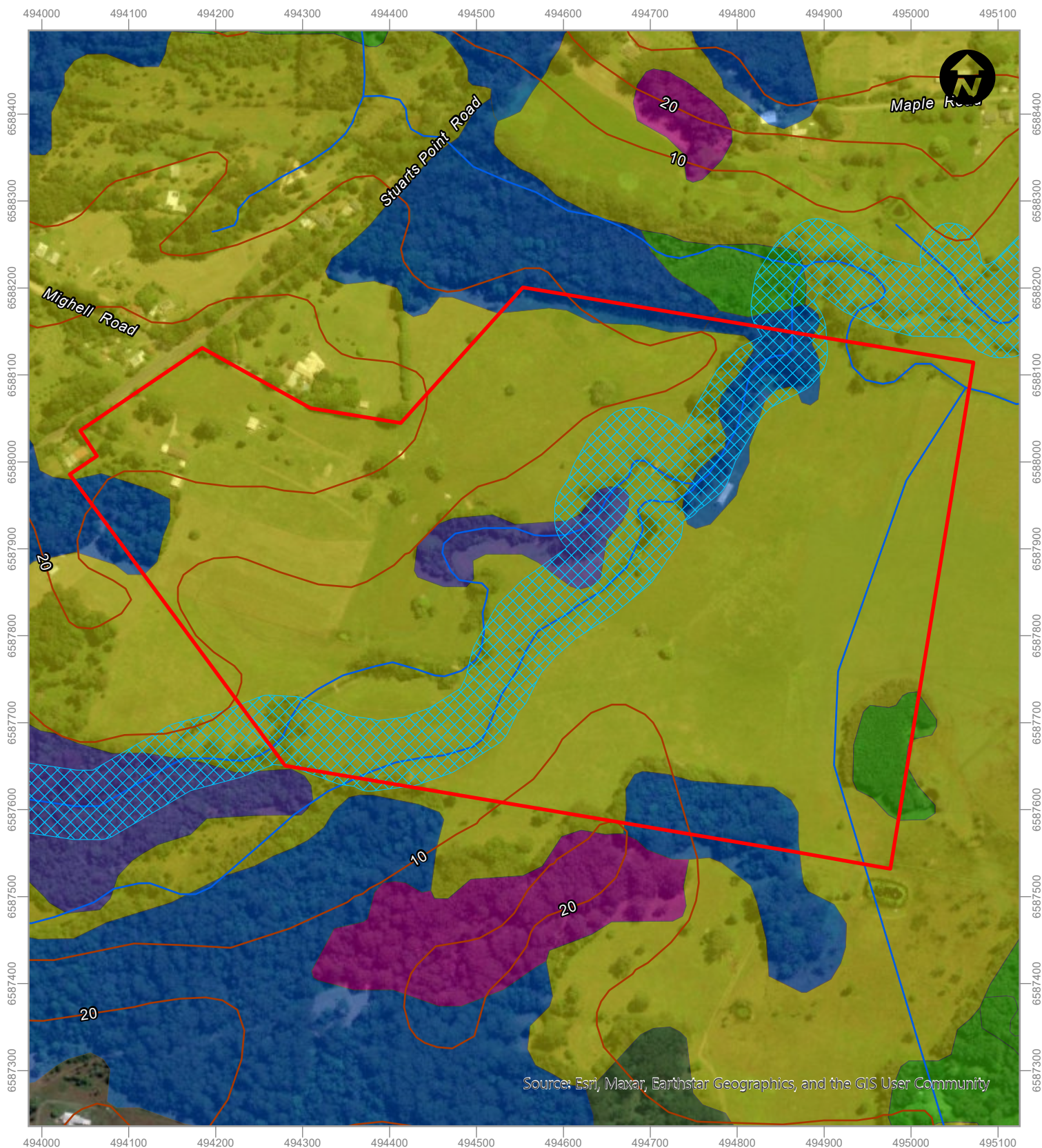


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0 3 km

## Site Locality - Illustration 1.1





Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

#### LEGEND

- Site boundary
- Key fish habitat

#### Kempsey LGA VIS Vegetation Mapping

- Agricultural Plantations / Orchards
- Dry Grassy Blackbutt-Tallowwood
- Dry Grassy Tallowwood-Grey Gum
- Paperbark
- Rainforest
- Wet Flooded Gum Tallowwood

- Contours at 10m intervals
- Watercourse

0 120 Metres

## Site Analysis - Illustration 2.2



## 2.2 Proposed Development

The proposal involves rezoning the site from Zone RU1 Primary Production and RU2 Rural Landscape to Zone R5 Large Lot Residential, C2 Environmental Conservation, C3 Environmental Management and RU1 Primary Production under the provisions of Kempsey Local Environmental Plan 2013 to facilitate future subdivision into twenty-five (25) lots (min. 1ha). **Appendix A** contains a map of the proposed zone boundaries. **Appendix B** contains plans of the proposed subdivision layout, including the proposed location of a building envelope on each lot. The building envelopes are situated in cleared sections of land and are capable of complying with bushfire and effluent disposal requirements for a future dwelling.

The lot containing the existing dwelling and associated infrastructure, none of which is impacted upon by the proposed loss of land for the large-lot residential subdivision, will retain access from Stuarts Point Road/ new internal access road.

## 2.3 Consultation with the NSW Rural Fire Service

GeoLINK was previously engaged by the client to provide preliminary bushfire hazard assessment advice based on the conceptual design for development. A pre-DA application form along with a detailed design brief was lodged with the NSW RFS on 25 May 2022 and provided an overview of the proposed subdivision layout, preliminary bushfire assessment, indicative asset protection zones (APZs) and addressed areas of non-compliance with the acceptable solutions of PBP 2019 with respect to proposed access arrangements. Information contained in this pre-DA inquiry and the response from NSW RFS can be viewed in **Appendix C**.

### 3. Bushfire Hazard Assessment

The following subsections were informed by a site visit undertaken by GeoLINK on 15 February 2022.

#### 3.1 Vegetation

As previously identified, the site has been historically cleared as part of previous agricultural pursuits although retains a number of pockets of consolidated native vegetation occurring mostly on the periphery of the site and along the internal waterways (refer to **Plates 3.1 to 3.4**). A remnant pocket of Paperbark swamp forest is located to the south-east and is surrounded by open grassland.

Dominant vegetation formations have been assessed as being forest (within and adjacent to the site), with open areas of grassland along the south-eastern and south-western boundary. Several native Plant Community Types (PCTs) based on the BioNet Vegetation Classification occur within this forest type vegetation (refer to **Table 3.1** for description and location).

**Table 3.1 Vegetation Communities**

Name	Description
<b>Plant Community Types</b>	
<i>1064 Paperbark swamp forest of the coastal lowlands of the NSW North Coast Bioregion and Sydney Basin Bioregion</i>	Variable composition including a relatively pure stand of Broad-leaved Paperbark ( <i>Melaleuca quinquenervia</i> ) with infrequent Swamp Mahogany ( <i>Eucalyptus robusta</i> ) occurring along the southern edge of the site. Understorey species within this area include Tall Saw Sedge ( <i>Gahnia clarkei</i> ), Woolly Frogmouth ( <i>Philydrum lanuginosum</i> ) and other wetland elements.  Stands of PCT 1064 occur along the eastern and north east edges of the site and comprise predominantly Swamp Oak ( <i>Casuarina glauca</i> ) with infrequent Broad-leaved Paperbark and Prickly-leaved Tea Tree ( <i>Melaleuca styphelioides</i> ) with a grassy understorey ( <i>Kikuyu Cenchrus clandestinus</i> and Broad-leaved Paspalum <i>Paspalum mandiocanum</i> ).
<i>PCT 827 Flooded Gum – Tallowwood – Brush Box moist open forest of the coastal ranges of the North Coast</i>	Concentrated along the unnamed creek traversing the site and dominated by Flooded Gum ( <i>Eucalyptus grandis</i> ) with more occasional Tallowwood ( <i>Eucalyptus microcorys</i> ), Red Ash ( <i>Alphitonia excelsa</i> ) and Water Gum ( <i>Tristaniaopsis laurina</i> ). The understorey contains some rainforest elements including Foambark ( <i>Jagera pseudorhus</i> ), Sandpaper Fig ( <i>Ficus coronata</i> ), Guioa ( <i>Guioa semiglaucula</i> ) and Water Vine ( <i>Cissus</i> spp).
<i>PCT 695 Blackbutt – Turpentine – Tallowwood shrubby open forest of the coastal foothills of the central NSW North Coast Bioregion</i>	Occurs within two consolidated areas of vegetation on the southern boundary of the site and dominated by Blackbutt ( <i>Eucalyptus pilularis</i> ), Pink Bloodwood ( <i>Corymbia gummifera</i> ), Tallowwood and Turpentine ( <i>Syncarpia glomulifera</i> ) with infrequent Forest Oak ( <i>Allocasuarina torulosa</i> ) and Red Ash. A mixed understorey occurs within this area including Mock Olive ( <i>Notelaea longifolia</i> ), Cheese Tree ( <i>Glochidion ferdinandii</i> ), Forest Oak and aggregations of Lantana ( <i>Lantana camara</i> ).
<i>Periodically inundated wet pasture</i>	Occurs on lower lying parts of the site to the east and is dominated by native wetland grass species such as Swamp Rice Grass ( <i>Leersia hexandra</i> ) and Swamp Millet ( <i>Isachne globosa</i> ).





**Plate 3.1 View south of existing dwelling surrounded by managed land**



**Plate 3.2 View south-east showing open grassland (pastures) with mapped Category 1 forest vegetation boarding the site**



**Plate 3.3 View north-west showing extent of forest vegetation along the northern boundary**



**Plate 3.4 View north showing riparian corridor**

Vegetation surrounding the site of the proposed lots/ building envelopes has been assessed in terms of potential fire hazard over a distance of 140 m, using the formation classes provided within Section A1.2 of PBP 2019. Dominant vegetation formations in each relevant direction are provided in **Table 3.2**.

**Table 3.2 Predominant Vegetation Formation**

Direction	Predominant Vegetation Formation
North	Forest
North-east	Forest
East	Forest
South	Forest
South-east	Rainforest*
South-west	Forest
West	Managed land
Centre	Forest (riparian corridor)

\* Section A1.11.1 of PBP 2019 identifies remnant vegetation as a parcel of vegetation with a size of less than 1 Ha or a shape that provides a potential fire run that could threaten buildings not exceeding 50 m. These remnants are considered a low hazard and APZ setbacks and building construction standards for these may be the same as for rainforests.





## 3.2 Slope

The landform is dominated by rolling low hills up to 27 m AHD, that are dominated by narrow rounded crests and long sideslopes and footslopes to the west. Slope gradient is generally flat along the eastern portion of the site (east of the intermittent waterway/ riparian corridor). Therefore, slopes vary across the subject site from flat/ upslope to 5-10°.

The effective slope is that slope within the hazard which most significantly affects fire behaviour of the site having regard to the vegetation formation. The effective slope for the proposal has been assessed over 100 m from the subdivision footprint. The effective slope in relation to the development is presented in **Table 3.3**.

**Table 3.3 Effective Slope**

Direction	Effective Slope Category
North	upslope/ flat
North-east	>5-10°
East	upslope/ flat
South	upslope/ flat
South-east	upslope/ flat
South-west	>0-5°
West	N/A
Centre	upslope/ flat

## 3.3 Fire Weather District

Kempsey Shire Council local government area is located within the 'North Coast' fire area, with a Fire Danger Index (FDI) rating of 80.

## 3.4 Climate

The typical/ average climate in the Mid North Coast Bushfire Management Committee (BFMC) area could be described as sub-tropical. The driest months on average being June to September and wettest in late summer and autumn (source [www.weatherzone.com.au](http://www.weatherzone.com.au)). The bushfire season generally runs from September through to January.

## 3.5 Bushfire Season

Prevailing weather conditions associated with the bushfire season in the Mid North Coast BFMC area are strong west to north westerly winds, with high temperatures and lower relative humidity.

## 4. Strategic Planning Assessment

The proposal involves rezoning the subject land from Zone RU1 Primary Production and RU2 Rural Landscape to Zone R5 Large Lot Residential, C2 Environmental Conservation, C3 Environmental Management and RU1 Primary Production under the provisions of Kempsey Local Environmental Plan 2013 to facilitate future subdivision into twenty-five (25) lots (min. 1ha). The proposed zone boundaries are shown in **Appendix A**.

The following sections outline the matters for consideration under Direction 4.3, issued pursuant to Section 9.1 of the EP&A Act, and the strategic planning considerations under Chapter 4 of PBP 2019.


### 4.1 Direction 4.3 - Planning for Bushfire Protection

Direction 4.3 Planning for Bushfire Protection, issued by the Minister for Planning under Section 9.1(2) of the EP&A Act, must be considered with respect to the proposed rezoning of the site. The Direction applies to all local government areas when a relevant planning authority prepares a planning proposal that will affect, or is in proximity to, land mapped as bushfire prone land.

**Table 4.1** summarises the matters identified under Direction 4.3 and a description of how these apply to the proposal.

**Table 4.1 Direction 4.3 – Planning for Bushfire Protection**

Direction (summarised)	Application
The planning authority must consult with the NSW Rural Fire Service following receipt of a gateway determination and take into account any comments so made.	Consultation is required with the RFS as part of the Planning Proposal assessment. Pre-DA consultation has been undertaken with the RFS as outlined in <b>Appendix C</b> .
A planning proposal must: <ul style="list-style-type: none"> <li>a. have regard to PBP 2019,</li> <li>b. introduce controls that avoid placing inappropriate developments in hazardous areas, and</li> <li>c. ensure that bushfire hazard reduction is not prohibited within the APZ.</li> </ul>	<p>This report outlines the requirements of PBP 2019 and demonstrates how the proposal complies.</p> <p>Bushfire hazard reduction is not prohibited under this proposal.</p>
A planning proposal must, where development is proposed, comply with the following provisions: <ul style="list-style-type: none"> <li>a. provide an APZ incorporating at a minimum: <ul style="list-style-type: none"> <li>i. an Inner Protection Area bounded by a perimeter road or reserve which circumscribes the hazard side of the land intended for development and has a building line consistent with the incorporation of an APZ, within the property, and</li> <li>ii. an Outer Protection Area managed for hazard reduction and located on the bushland side of the perimeter road,</li> </ul> </li> <li>b) for infill development (that is development within an already subdivided area), where an appropriate APZ cannot be achieved, provide for an appropriate performance standard, in consultation with the NSW Rural Fire Service.</li> <li>c) contain provisions for two-way access roads which links to perimeter roads and/or to fire trail networks,</li> </ul>	<ul style="list-style-type: none"> <li>a. APZ are proposed, as outlined in <b>Section 5</b>. A perimeter road is not required for large-lot residential subdivisions.</li> <li>b. N/A - the proposal is not infill development</li> <li>c. The proposed road networks comply with the performance criteria for access, as outlined in <b>Section 5.2</b>.</li> </ul>



Direction (summarised)	Application
d) contain provisions for adequate water supply for firefighting purposes,	d. Refer to <b>Section 5.3</b> of this report.
e) minimise the perimeter of the area of land interfacing the hazard which may be developed,	e. The number of lots interfacing the Category 1 bushfire prone land has been kept to the minimum possible.
f) introduce controls on the placement of combustible materials in the Inner Protection Area.	f. APZs will be required to be managed in accordance with PBP 2019 – Appendix 4.

## 4.2 PBP 2019 – Chapter 4 – Strategic Planning

Chapter 4 of PBP 2019 outlines the strategic planning principles to be considered at rezoning stage to ensure that future land uses are in appropriate locations to minimise the risk to life and property from bushfire attack.

**Table 4.2** outlines the broad principles for a strategic bushfire analysis contained in Section 4.1 of PBP 2019 and how the proposal responds to these principles.

**Table 4.2 Broad Principles for Strategic Bushfire Analysis**

Principles (PBP 2019 – Section 4.1)	Application
Ensuring land is suitable for development in the context of bush fire risk	The proposed future subdivision of the site complies with PBP 2019, as outlined in this report.
Ensuring new development on BFPL will comply with PBP	<b>Section 5</b> of this report demonstrates that future development of the proposed lots can comply with PBP 2019.
Minimising reliance on performance-based solutions	A performance solution is proposed with respect access to the proposed subdivision (refer to <b>Section 5.2.1</b> ). Otherwise, future subdivision and development on the proposed lots can comply with the acceptable solution requirements of PBP 2019.
Providing adequate infrastructure associated with emergency evacuation and firefighting operations	Complies - refer to <b>Section 5</b> of this report.
Facilitating appropriate ongoing land management practices.	Complies - refer to <b>Section 5</b> of this report.

Chapter 4 of PBP 2019 also outlines the matters that must be considered as part of a Strategic Bush Fire Study. **Table 4.3** summarises the issues for consideration in PBP 2019 Table 4.2.1 and discusses how these apply to the proposal.

**Table 4.3 Bush Fire Strategic Study**

Issues (PBP 2019 – Table 4.2.1)	Application
Bushfire landscape assessment	<p>The site of the proposed subdivision is predominately cleared, however the surrounding landscape contains a sporadic combination of forest vegetation and open grazing land. There are no long runs of continuous forest leading to the site. The large tract of forest to the east is separated from the proposed subdivision by open grazing land.</p> <p><b>Illustration 1.1</b> shows the extent of bushfire prone land immediately surrounding the site and <b>Section 3</b> contains an outline of the predominant vegetation, effective slope and FDI influencing the site. This information is assessed in <b>Section 5</b> with appropriate bushfire protection measures identified in accordance with PBP 2019.</p>
Land use assessment	<p>The predominant bushfire threat is around the perimeter of the site due to areas of forest vegetation on the adjacent land. The area proposed for large-lot residential subdivision is predominately cleared grazing land. Building envelopes have been identified in the cleared areas of the proposed lots that are easily capable of providing APZs in accordance with PBP 2019.</p>
Access and egress	<p>The site is serviced by Stuarts Point Road, which is a two-lane bitumen sealed public road providing alternative access/ egress routes for the site. Stuarts Point Road traverses from the Eungai Rail interchange on the Pacific Highway in a north-easterly direction to Stuarts Point. The site is located approx. 3.4 km from the Pacific Highway and 6.8 km from Stuarts Point. Stuarts Point Road is a local road servicing rural-residential properties between the Pacific Highway and Stuarts Point. Access north from Stuarts Point is available via Grassy Head Road to Scotts Head and back to the Pacific Highway.</p> <p>Details relating to access within the proposed subdivision are outlined in <b>Section 5.2</b>.</p>
Emergency services	<p>Local RFS brigades are located at Yarrahapinni/ Stuarts Point and Eungai. While the proposed subdivision will result in more properties within the local area, it also provides the opportunity for increased RFS membership from new residents.</p>
Infrastructure	<p>The site is not connected to a reticulated water supply and is not located within close proximity to high voltage power lines or other critical infrastructure.</p>
Adjoining land	<p>The surrounding land contains numerous rural-residential properties, not significantly dissimilar to the proposed subdivision. The recommended bushfire protection measures can be contained within the proposed lots.</p>

## 5. Bushfire Protection Measures

### 5.1 Asset Protection Zones

An Asset Protection Zone (APZ) is a fuel-reduced area surrounding a built asset or structure. APZ requirements have been calculated based on the effective slope, vegetation formations and FDI rating in accordance with Table A1.12.3 (*Minimum Distances for APZs – residential developments <29 kW/m<sup>2</sup> @ 1090K*) of PBP 2019 (refer to **Table 5.1**).

APZs should consist of open areas with minimal fuel at ground level that could be set alight by bushfire. Some trees and shrubs are permissible within the APZ, provided crown separation can be achieved and vegetation does not overhang buildings. In addition, no combustible materials (e.g. wood piles, flammable building materials) should be stored in the APZ.

**Illustration 5.1** shows the minimum required APZ's for the proposed subdivision and proximity to the indicative building envelopes.

**Table 5.1 Asset Protection Zones**

Direction	Vegetation Formation	Effective Slope Category	APZ (m)
North	Forest	upslope/ flat	20
North-east	Forest	>5-10 <sup>0</sup>	31
East	Forest	upslope/ flat	20
South	Forest	upslope/ flat	20
South-east	Rainforest	upslope/ flat	9
South-west	Forest	>0-5 <sup>0</sup>	25
West	Managed land	N/A	-
Centre	Forest (riparian corridor)	upslope/ flat	20

It is recommended that proposed Zone R5 land (refer to **Appendix A**), being the area of the proposed lots, be managed as an Outer Protection Area (OPA) until such time as the individual lots are developed in the future. Inner Protection Area (IPA) requirements can be determined and applied at future dwelling construction stage on each lot.

The requirements for an IPA and OPA are outlined below, in accordance with PBP 2019 – Appendix 4.

#### IPA

- Trees:
  - tree canopy cover should be less than 15% at maturity;
  - trees at maturity should not touch or overhang the building;
  - lower limbs should be removed up to a height of 2m above the ground;
  - tree canopies should be separated by 2 to 5m; and
  - preference should be given to smooth barked and evergreen trees.
- Shrubs
  - create large discontinuities or gaps in the vegetation to slow down or break the progress of fire towards buildings should be provided;
  - shrubs should not be located under trees;
  - shrubs should not form more than 10% ground cover; and
  - clumps of shrubs should be separated from exposed windows and doors by a distance of at least twice the height of the vegetation.


- Grass
    - grass should be kept mown (as a guide grass should be kept to no more than 100mm in height); and
    - leaves and vegetation debris should be removed.
- OPA**
- Trees:
    - tree canopy cover should be less than 30%; and
    - canopies should be separated by 2 to 5m.
  - Shrubs
    - shrubs should not form a continuous canopy; and shrubs should form no more than 20% of ground cover.
  - Grass
    - grass should be kept mown to a height of less than 100mm; and leaf and other debris should be removed

**Table 5.2** assesses compliance with the acceptable solutions of PBP 2019 relating to APZs.

**Table 5.2 Assessment of APZ Compliance with Table 5.3a of PBP 2019**

Performance Criteria	Acceptable Solution	Application	Compliant with Acceptable Solution
Potential building footprints must not be exposed to radiant heat levels exceeding 29 kW/m <sup>2</sup> on each proposed lot.	APZs are provided in accordance with Tables A1.12.2 or A1.12.3 based on the FFDI.	<ul style="list-style-type: none"> <li>■ In accordance with Table A1.12.3 of PBP 2019, each lot/ indicative building envelope can apply the respective APZ's as shown in <b>Table 5.1</b>. It is recommended that proposed Zone R5 land be managed as an Outer Protection Area (OPA) until such time as the individual lots are developed in the future.</li> </ul>	Yes
APZs are managed and maintained to prevent the spread of fire to the building.	APZs are managed in accordance with the requirements of Appendix 4 of PBP 2019.	<ul style="list-style-type: none"> <li>■ APZs will be managed in accordance with the requirements of Appendix 4 of PBP 2019.</li> </ul>	
The APZ is provided in perpetuity.	APZs are wholly within the boundaries of the development site.	<ul style="list-style-type: none"> <li>■ APZs will be located within the boundaries of the site.</li> </ul>	
APZ maintenance is practical, soil stability is not compromised and the potential for crown fires is minimised.	APZs are located on lands with a slope less than 18 degrees.	<ul style="list-style-type: none"> <li>■ APZs are not located on slope exceeding 18 degrees.</li> </ul>	





Performance Criteria	Acceptable Solution	Application	Compliant with Acceptable Solution
Landscaping is designed and managed to minimise flame contact and radiant heat to buildings, and the potential for wind-driven embers to cause ignitions.	Landscaping is in accordance with Appendix 4.	<ul style="list-style-type: none"> <li>Landscaping can be undertaken in accordance with Appendix 4 of PBP 2019.</li> </ul>	Yes
	Fencing is constructed in accordance with Section 7.6 of PBP 2019.	<ul style="list-style-type: none"> <li>Any fencing proposed within the identified APZ can be constructed in accordance with Section 7.6 of PBP 2019.</li> </ul>	Yes





- LEGEND**
- |                       |                            |                           |
|-----------------------|----------------------------|---------------------------|
| Site boundary         | Proposed building envelope | Contours at 10m intervals |
| Asset protection zone | Proposed lot layout        | Watercourse               |





## 5.2 Access

Due to the relatively short site frontage to Stuarts Point Road, the proposed subdivision layout only has one intersection/ access point onto Stuarts Point Road. There are no other public roads in the vicinity of the site to enable alternative access to be provided to the proposed subdivision and it is inefficient and uneconomical to provide a second access point in close proximity along the site frontage of Stuarts Point Road.

Within the site, the proposed road network diverges from the single access road into two cul-de-sac roads, one traversing in a north-easterly direction, and the other traversing in a south-easterly direction (refer to the proposed subdivision layout in **Appendix B**).

The north-eastern road is centrally located through a cleared area of the site with proposed lots on either side.

The south-eastern road also has lots on either side and is located over predominately cleared grassland, except where it crosses the waterway/ ephemeral drainage line. The drainage line and 20 m buffer on each side (i.e. Zone C2 land) is likely to be revegetated as part of the development. Once revegetated, the drainage corridor vegetation could create a bushfire hazard for the road servicing proposed Lots 17 to 25.

The following assessment has identified that the proposed access arrangements do not comply with all the acceptable solution requirements in PBP 2019. **Table 5.3** details the relevant access performance criteria and acceptable solutions in Table 5.3b of PBP 2019 and provides a discussion of the extent to which the proposal complies with the acceptable solutions.

**Table 5.3 Assessment of Access Compliance with Table 5.3b of PBP 2019**

Performance Criteria	Acceptable Solution	Compliance with PBP 2019
<b>Access (General Requirements)</b>		
Firefighting vehicles are provided with safe, all-weather access to structures.	Property access roads are two-wheel drive, all-weather roads.	Can comply The proposed roads will be two-wheel drive, all-weather roads.
	Perimeter roads are provided for residential subdivisions of three or more allotments.	N/A The proposed subdivision is not an urban residential subdivision and does not require a perimeter road.
	Subdivisions of three or more allotments have more than one access in and out of the development.	<b>Does not comply</b> The proposed subdivision layout has a single access road that intersects with Stuarts Point Road, which then diverges into two separate cul-de-sacs within the subdivision. The site has only limited frontage to Stuarts Point Road (170 m) and no other public road frontage for a secondary access point.
	Traffic management devices are constructed to not prohibit access by emergency services vehicles.	N/A
	Maximum grades for sealed roads do not exceed 15 degrees and an average grade of not more than 10 degrees or other gradient	Can comply

Performance Criteria	Acceptable Solution	Compliance with PBP 2019
	specified by road design standards, whichever is the lesser gradient.	Proposed road design will comply with the relevant standards to ensure maximum grades are not exceeded.
	All roads are through roads.	<b>Does not comply</b> The proposed subdivision layout has a single access road that intersects with Stuarts Point Road, which then diverges into two separate cul-de-sacs within the subdivision.
	Dead end roads are not recommended, but if unavoidable, are not more than 200 m in length, incorporate a minimum 12 m outer radius turning circle, and are clearly sign posted as a dead end.	<b>Does not comply</b> Both of the proposed cul-de-sac roads are dead end roads >200m in length.  The north-eastern cul-de-sac is approx. 580m in length from Stuarts Point Road.  The south-eastern cul-de-sac is approx. 760m in length from Stuarts Point Road.  A 12 m outer radius turning circle can be provided at the termination of each road.
	Where kerb and guttering is provided on perimeter roads, roll top kerbing should be used to the hazard side of the road.	N/A
	Where access/ egress can only be achieved through forest, woodland and heath vegetation, secondary access shall be provided to an alternate point on the existing public road system.	<b>Does not comply</b> The proposed roads traverse predominately grassland vegetation, except for a short section (approx. 40 m) of the south-eastern cul-de-sac road where it crosses a drainage line. No alternative access is proposed for Lots 17 – 25.
	One way only public access roads are no less than 3.5m wide and have designated parking bays with hydrants located outside of these areas to ensure accessibility to reticulated water for fire suppression.	N/A No one way public roads are proposed.
The capacity of access roads is adequate for firefighting vehicles.	The capacity of road surfaces and any bridges/ causeways is sufficient to carry fully loaded firefighting vehicles (up to 23 tonnes); bridges and causeways are to clearly indicate load rating.	Can comply The proposed roads and any bridges/ causeways can be constructed to comply with relevant load capacity.
There is appropriate access to water supply.	Hydrants are located outside of parking reserves and road carriageways to ensure accessibility to reticulated water for fire suppression.	N/A Reticulated water supply is not proposed.

Performance Criteria	Acceptable Solution	Compliance with PBP 2019
	Hydrants are provided in accordance with the relevant clauses of AS 2419.1:2005.	N/A Reticulated water supply is not proposed.
	There is suitable access for a Category 1 fire appliances to within 4m of the static water supply where no reticulated supply is available.	Can comply Access to the static water supply for each lot can be provided at dwelling construction stage.
Perimeter Roads		
Access roads are designed to allow safe access and egress for firefighting vehicles while residents are evacuating as well as providing a safe operational environment for emergency service personnel during firefighting and emergency management on the interface.	Are two-way sealed roads.	N/A No perimeter roads are proposed.
	Minimum 8 m carriageway width kerb to kerb.	
	Parking is provided outside of the carriageway width.	
	Hydrants are located clear of parking areas.	
	Are through roads, and these are linked to the internal road system at an interval of no greater than 500 m.	
	Curves of roads have a minimum inner radius of six metres.	
	The maximum grade road is 15 degrees and average grade of not more than 10 degrees.	
	The road crossfall does not exceed three degrees.	
	A minimum vertical clearance of four metres to any overhanging obstructions, including tree branches, is provided.	
Non-perimeter roads		
Access roads are designed to allow safe access and egress for firefighting vehicles while residents are evacuating.	Minimum 5.5 m carriageway width kerb to kerb.	The proposed roads within the subdivision can be designed to comply with the requirements for non-perimeter roads, except that the proposed roads are not through roads.
	Parking is provided outside of the carriageway width.	
	Hydrants are located clear of parking areas.	
	Roads are through roads, and these link to the internal road system at intervals of no greater than 500 m.	
	Curves of roads have a minimum inner radius of six metres.	
	The road crossfall does not exceed three degrees.	
	A minimum vertical clearance of 4 m to any overhanging obstructions, including tree branches, is provided.	
Property Access		
Firefighting vehicles can	There are no specific access requirements in an urban area where	N/A

Performance Criteria	Acceptable Solution	Compliance with PBP 2019
access the dwelling and exit the property safely.	an unobstructed path (no greater than 70 m) is provided between the most distant external part of the proposed dwelling and the nearest part of the public access road (where the road speed limit is not greater than 70 kph) that supports the operational use of emergency firefighting vehicles.  In circumstances where this cannot occur, the following requirements apply:	
	Minimum 4m carriageway width	Can comply
	in forest, woodland and heath situations, rural property access roads have passing bays every 200m that are 20m long by 2m wide, making a minimum trafficable width of 6m at the passing bay;	Property access roads to individual lots are not proposed as part of the subdivision, but would be provided at the future dwelling DA stage for the respective lots.
	a minimum vertical clearance of 4m to any overhanging obstructions, including tree branches;	Notwithstanding this, all of the lots are capable of providing a property access road from the proposed public road to the nominated building envelope in accordance with the requirements for property access.
	provide a suitable turning area in accordance with Appendix 3;	All lots (except proposed Lots 7 and 25) have direct frontage to a proposed public road, with the nominated building envelopes being within close proximity to the road.
	curves have a minimum inner radius of 6m and are minimal in number to allow for rapid access and egress;	Proposed Lots 7 and 25 have a driveway access handle/ right-of-way from the public road to the building envelope. The access handles traverse grassland areas and are no greater than 100 m in length.
	the minimum distance between inner and outer curves is 6m;	
	the crossfall is not more than 10 degrees;	
	maximum grades for sealed roads do not exceed 15 degrees and not more than 10 degrees for unsealed roads; and  a development comprising more than three dwellings has access by dedication of a road and not by right of way.	

### 5.2.1 Addressing the Performance Criteria

The performance criteria for areas of access non-compliance with PBP 2019 acceptable solutions is:

*Firefighting vehicles are provided with safe, all-weather access to structures.*

#### 5.2.1.1 Subdivision Layout

In order to provide safe, all-weather access for fire fighting vehicles, the subdivision layout has been designed to ensure that:

- proposed public roads traverse grassland areas that can easily be managed:



- building envelopes are located close to the proposed public roads; and
- the proposed APZ over each lot creates a managed corridor along both sides of the public roads, thus providing a managed separation between the road and the bushfire hazard vegetation and providing for safe access. The proposed APZs (**Illustration 5.1**) exceed the minimum requirement of PBP for a radiant heat exposure of 29 kW/m<sup>2</sup> and can be enforced via a restriction-to-use over the proposed lots with respect to vegetation establishment and maintenance.

The above measures are intended to minimise radiant heat exposure along the roads and from the building envelopes to the road. The impact of smoke and embers will also be lessened with greater separation from the bushfire hazard vegetation.

#### 5.2.1.2 Drainage Corridor Vegetation

The likely revegetation of the drainage corridor will create a potential bushfire hazard along part of the south-eastern road. The drainage corridor is approx. 40 m wide and is relatively flat either side of the crossing. Due to the narrow linear nature of the drainage corridor, vegetation and its isolation from other areas of significant forest vegetation, it is unlikely that a fully developed bushfire would occur in this location. Notwithstanding this, a bushfire in the drainage corridor vegetation could impact access to the nine (9) lots located east of the drainage corridor.

The assessment methodology to address the potential pinch point created by the drainage corridor vegetation is via comparison to an acceptable solution. In this regard, Clause 1.19A(1)(b)(i) of SEPP (Exempt and Complying Development Codes) 2008 is referenced, as follows:

#### 1.19A Land on which complying development may not be carried out—bush fire prone land

- (1) To be complying development specified for any complying development code (except the Housing Alterations Code)—
- (b) in the case of development specified for the Rural Housing Code—any associated access way to the development must be on land that is—
    - (i) not in bush fire attack level-40 (BAL 40) or the flame zone (BAL-FZ).

The above development standard is an acceptable solution for access to complying development under SEPP (Exempt and Complying Development Codes) 2008 and provides a reasonable standard for comparison.

In regard to the subdivision access road, it is proposed to maintain an APZ on proposed Lot 25 on both sides of the road at the point where it traverses the drainage corridor. The width of the APZ will be sufficient to ensure that:

- radiant heat exposure at the road is less than BAL 40; and
- it is greater than the height of the trees proposed to be planted in the drainage corridor adjacent to the road, to avoid the road being blocked by a fallen tree.

In this regard, a 20 m APZ can be provided on Lot 25 either side of the road crossing over the drainage corridor

#### 5.2.1.3 South-eastern Access Road

The turning circle at the termination of the southern cul-de-sac road abuts an area of forest vegetation. In order to maintain a separation between the forest vegetation and the public road turning circle, it is recommended that the road be shortened by sufficient distance to provide an APZ to ensure that radiant heat exposure at the road is less than BAL 40 (as outlined in **Section 5.2.1.2**).

## 5.3 Services – Water, Electricity and Gas

As the site is not serviced by reticulated water supply. A static water supply for fire fighting could be provided at dwelling construction stage.

Existing electricity supply can be made available to the site via adjacent overhead transmission lines.

Bottled gas is not proposed at this stage and will be assessed at dwelling construction stage for the proposed lot.

**Table 5.4** outlines the extent to which the water, electricity and gas services comply with the relevant acceptable solution requirements of Table 5.3c of PBP 2019.

**Table 5.4 Assessment of Services Compliance with Table 5.3c of PBP 2019**


Performance Criteria	Acceptable Solution	Application	Compliant
Adequate water supplies are provided for firefighting purposes.	Reticulated water is to be provided to the development, where available.	Reticulated water is not available to the site.	N/A
	A static water and hydrant supply is provided for non-reticulated developments or where reticulated water supply cannot be guaranteed.	A static water supply can be provided at dwelling construction stage.	Yes
	Static water supplies shall comply with Table 5.3d.	A minimum 20,000 litre static water supply would be required for each lot.	Yes
Water supplies are located at regular intervals.  The water supply is accessible and reliable for firefighting operations.	Fire hydrant spacing, design and sizing comply with the relevant clauses of AS 2419.1:2005.	N/A	N/A
	Hydrants are not located within any road carriageway.	N/A	N/A
	Reticulated water supply to urban subdivisions uses a ring main system for areas with perimeter roads.	N/A	N/A
Flows and pressure are appropriate.	Fire hydrant flows and pressures comply with the relevant clauses of AS 2419.1:2005.	N/A	N/A
The integrity of the water supply is maintained.	All above-ground water service pipes external to the building are metal, including and up to any taps.	All above-ground water service pipes external to the building will be metal, including and up to any taps.	Yes
Location of electricity services limits the possibility of ignition of surrounding bush land or the fabric of buildings.	Where practicable, electrical transmission lines are underground.	Existing electrical services are above ground and can be made available to the site.	N/A
	Where overhead, electrical transmission lines are proposed as follow:	Refer to above	N/A

Performance Criteria	Acceptable Solution	Application	Compliant
	<ul style="list-style-type: none"> <li>lines are installed with short pole spacing (30 m), unless crossing gullies, gorges or riparian areas</li> <li>no part of a tree is closer to a power line than the distance set out in accordance with the specifications in <i>ISSC3 Guideline for Managing Vegetation Near Power Lines</i>.</li> </ul>		
Location and design of gas services will not lead to ignition of surrounding bushland or the fabric of buildings.	Reticulated or bottled gas is installed and maintained in accordance with AS/NZS 1596:2014 and the requirements of relevant authorities, and metal piping is used.	<p>Bottled gas is not proposed at this stage and will be assessed at dwelling construction stage for each proposed lot.</p> <p>Bottled gas can be provided in accordance with PBP 2019.</p>	Yes
	All fixed gas cylinders are kept clear of all flammable materials to a distance of 10 m and shielded on the hazard side.	If required, all fixed gas cylinders will be kept clear of all flammable materials to a distance of 10 m and shielded on the hazard side.	Yes
	Connections to and from gas cylinders are metal.	Connections to and from gas cylinders will be metal.	Yes
	Polymer-sheathed flexible gas supply lines to gas meters adjacent to buildings are not to be used.	No polymer-sheathed flexible gas supply lines will be used.	Yes
	Above-ground gas service pipes external to the building are metal, including and up to any outlets.	Above-ground gas service pipes external to the building will be metal, including and up to any outlets.	Yes

## 5.4 Construction Standards

The standard of building construction required to provide bushfire protection is based on the Bushfire Attack Level (BAL). The BAL is used to describe the level of potential bushfire attack on a property (ember attack, radiant heat and direct flame contact) and is based on radiant heat flux exposure thresholds (expressed in kilowatts per metre squared – kW/m<sup>2</sup>), as described in Table A1.7 of Planning for Bush Fire Protection 2019.

Bushfire Attack Levels (BALs) are determined in accordance with Planning for Bush Fire Protection 2019 - Table A1.12.6 and the corresponding construction requirements are contained in Australian Standard AS3959-2018: 'Construction of Buildings in bushfire prone areas' or NASH Standard 'Steel framed construction in bushfire areas' (2014).



BALs for each individual lot can be determined at dwelling construction stage. As shown in **Section 5.1**, each lot is capable of providing a building envelope at BAL 29 or less.

The site contains an existing dwelling which will be retained on proposed Lot 13. Section 5.1.3 of PBP 2019 states that *while all new dwellings within a subdivision must comply with PBP 2019, there may be existing dwellings located on the land that would benefit from bushfire protection measures. Conditions may therefore be applied to the subdivision consent requiring the existing structure to be upgraded to provide ember protection and water supplies for fire fighting.*

Given that there are no changes proposed to the dwelling or adjoining structures, it is recommended that non-combustible gutter and valley leaf guards are to be installed, as the site complies with all other performance criteria and acceptable solutions of PBP 2019. This includes good access to the public road network to the west (away from the hazard in the south), the grounds surrounding the dwelling are currently managed as an IPA and there is good access to static water supply.

## 5.5 Landscaping

No additional landscaping or fencing is proposed as part of the subdivision. Landscaping and fencing associated with any future dwellings could be designed and maintained in accordance with PBP 2019 Appendix 4 and Section 7.6.

# 6. Recommendations and Conclusion

## 6.1 Recommendations

It is recommended that:

The Planning Proposal be supported to enable the rezoning of Lot 333 DP 805299, 322 Stuarts Point Road, Yarrahapinni from Zone RU1 Primary Production and RU2 Rural Landscape to Zone R5 Large Lot Residential, C2 Environmental Conservation, C3 Environmental Management and RU1 Primary Production under the provisions of Kempsey Local Environmental Plan 2013 to facilitate future subdivision into twenty-five (25) lots (min. 1ha).

Subject to rezoning, the following bushfire protection measures be included in the consent for approval to subdivide Lot 333 DP 805299, 322 Stuarts Point Road, Yarrahapinni into twenty-five (25) lots (min. 1ha):

- The Zone R5 land be managed as an Outer Protection Area (OPA) in accordance with PBP 2019 – Appendix A4.1.2 until such time as the individual lots are developed for residential purposes.
- The area of Lot 13 around the existing dwelling be managed as an Inner Protection Area (IPA) in accordance with PBP 2019 – Appendix A4.1.1 for a distance of 25 m to the south-west and to the lot boundary in each other direction.
- A restriction-to-use for the purpose of an asset protection zone be created over Lot 25 for a distance of 20 m either side of the road (drainage corridor), to be managed as an Inner Protection Area (IPA) in accordance with PBP 2019 – Appendix A4.1.1.
- Public roads comply with PBP 2019 – Table 5.3b (General Requirements and Non-Perimeter Roads), except that:
  - an alternative access is not required and dead-end cul-de-sacs greater than 200 m in length are permitted; and
  - the cul-de-sac turning head on the south-east road be located 20 m from the adjacent unmanaged vegetation.
- Electricity supply is to comply with PBP 2019 – Table 5.3c.
- The existing dwelling be upgraded by installing non-combustible gutter and valley leaf guards.

## 6.2 Conclusion

This Bushfire Hazard Assessment has taken into consideration the proposed plans, existing vegetation, effective slope, local bushfire risk conditions and FDI. Adequate and appropriate bushfire protection measures are available, and can be implemented, to facilitate the proposed rezoning and subdivision of Lot 333 DP 805299, 322 Stuarts Point Road, Yarrahapinni. The proposed development meets the aims and objectives for residential and rural residential subdivisions and complies with Section 100B of the *Rural Fires Act 1997*.

Prepared by:



**Kale Hardie-Porter**

Environmental Planner  
BUrb&EnvPlan (Hons)  
Planning for Bush Fire Prone Areas, Short Course – UTS





## References

Australian Building Codes Board [ABCB] (2019). *The Building Code of Australia*, ABCB Canberra, Volume 2.

Keith, D., (2004). *Ocean Shores to Desert Dunes*, Department of Environment and Conservation, Hurstville.

NSW Rural Fire Service [RFS] (2019). *Planning for Bush Fire Protection*. NSW Rural Fire Service and Department of Planning, Sydney.

Standards Australia (2018). *Construction of buildings in bushfire-prone areas, AS 3959*. Standards Australia International Ltd, Sydney.



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The dimensions, number, size and shape of lots shown on drawings are subject to detailed engineering design, final survey and Council conditions of consent.

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## Appendix A

# Proposed Zone Boundaries


## Yarrahapinni

### PROPOSED ZONING MAP - KEMPSEY LOCAL ENVIRONMENTAL PLAN 2013

#### Zone

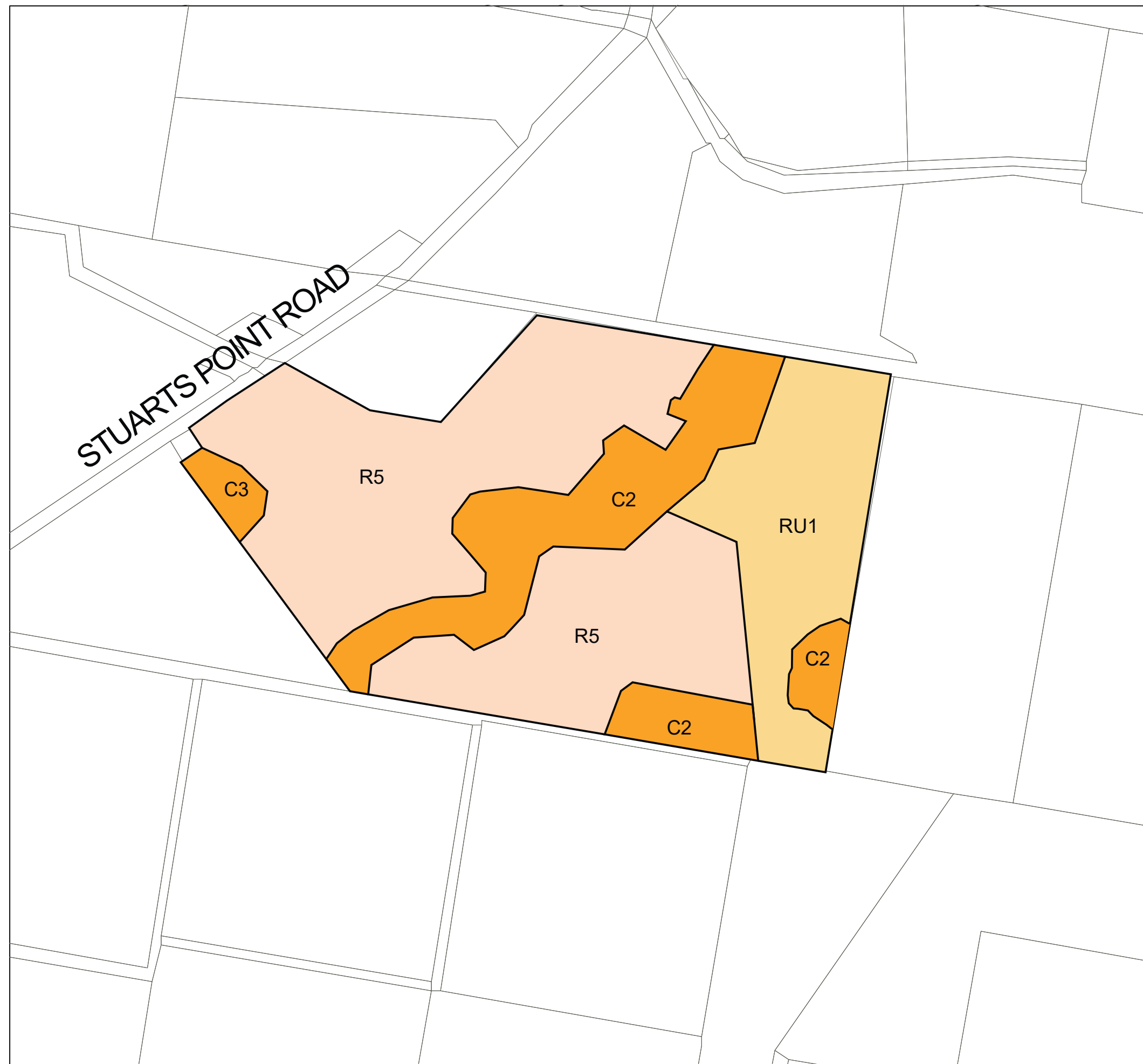
- C2** Environmental Conservation
- C3** Environmental Management
- R5** Large Lot Residential
- RU1** Primary Production

#### Cadastre

-  Base Data 01/01/1997 © Land and Property Information (LPI)
- Addendum Data 13/07/2011 © Kempsey Shire Council



Plan Ref: 3861-DP Issue.13.230823







## Appendix B

# Proposed Subdivision Layout

LOT 3  
DP259961

ROAD

POINT

**LOT5**  
1 ha

**LOT6**  
1 ha

**LOT4**  
1 ha

**LOT3**  
1 ha

**LOT12**  
1 ha

**LOT13**  
1 ha

**LOT14**  
1 ha

**LOT1**  
1 ha

**LOT10**  
1 ha

**LOTS**  
1 ha

BOUNDARY LOCATED  
ON EXISTING TRACK  
AND CLEARING

LOT 334  
DP805299

**LOT25**  
18.91 ha

LOT 136  
DP752403

**LOT23**  
1.00 ha

**LOT22**  
1.00 ha

**LOT15**  
1 ha

**LOT24**  
1.00 ha

**LOT16**  
1 ha

**LOT PART 25**  
1.4 ha

**LOT17**  
1.75 ha

**LOT18**  
1.00 ha

**LOT21**  
1.00 ha

**LOT20**  
1.00 ha

**LOT1**  
1.00 h

LOT 15  
DP752403

11	Revised Layout	31/08/23
10	Revised Layout	02/11/22
1	Concept Layout	14/10/22
<b>Issue</b>	<b>Desc.</b>	<b>Date</b>
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Registered Building Practitioner (Civil) VIC #CC36910

ABN 62 101 949 937

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partners  
civil | structural | planning

project	PROPOSED SUBDIVISION LAYOUT OF LOT 333 DP805299 No. 322 STUARTS POINT ROAD, YARRAHAPINNI
client	ELLIOT
title	SUBDIVISION PLAN (EXISTING CONTOURS)

scale NTS	original A3	issue 11
approved 	drawn TJW	
total sheets 06	sheet no. 01	

3861-DP



DIMENSIONS MAY VARY — SUBJECT TO FINAL SURVEY

rev.2 20220817



Issue	Desc.	Date
11	Revised Layout	31/08/23
10	Revised Layout	02/11/22
1	Concept Layout	14/10/22

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ABN 62 101 949 937

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project PROPOSED SUBDIVISION LAYOUT  
OF LOT 333 DP805299  
No. 322 STUARTS POINT ROAD, YARRAHAPINNI

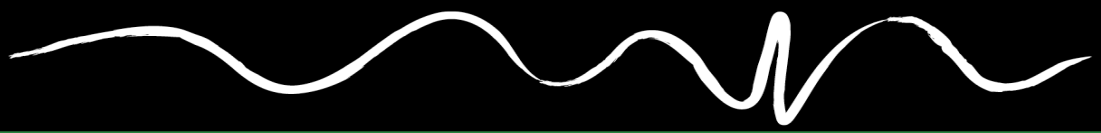
client ELLIOT

title SUBDIVISION PLAN (AERIAL PHOTO)

scale NTS	original A3	issue 11
approved 	drawn T.J.W.	
total sheets 06	sheet no. 04	

3861-DP





## Appendix C

### Pre-DA consultation - RFS comments



## Paul Creenaune

---

**From:** Alan Bawden <Alan.Bawden@rfs.nsw.gov.au>  
**Sent:** Tuesday, 2 August 2022 4:09 PM  
**To:** Paul Creenaune  
**Subject:** RFS Pre-DA Advice- 322 Stuarts Point Road, Yarrahapinni  
**Attachments:** 4006-1009 Bushfire Design Brief.pdf

### PRE-DA20220526000094 - Subdivision - 322 STUARTS POINT RD YARRAHAPINNI

Good afternoon Paul

The NSW RFS has received and reviewed the attached document.

In response the NSW RFS provides the following advice

- Rezoning and Rural residential subdivision
- Dead end public roads - non perimeter
- Large lot residential does not require perimeter roads as access through the large lots for fire fighting is assumed.
- Dead end roads are not encouraged but if proposed turning heads to PBP19 and APZ(s) to ensure no flame contact is ideal.

The concept subdivision plan encompasses these outcomes.

Regards



**Alan Bawden**  
**Acting Manager**  
**Planning and Environment Services (North)**  
**NSW RURAL FIRE SERVICE**  
51 Moonee Street Coffs Harbour  
Locked Bag 17 GRANVILLE NSW 2142  
p 02 66910400 e [pes@rfs.nsw.gov.au](mailto:pes@rfs.nsw.gov.au)  
[www.rfs.nsw.gov.au](http://www.rfs.nsw.gov.au) [www.facebook.com/nswrfs](https://www.facebook.com/nswrfs) [www.twitter.com/nswrfs](https://www.twitter.com/nswrfs)  
**PREPARE.ACT.SURVIVE**

---

**From:** Paul Creenaune <PCreenaune@geolink.net.au>  
**Sent:** Wednesday, 25 May 2022 3:27 PM  
**To:** Records <Records@rfs.nsw.gov.au>  
**Cc:** Alan Bawden <Alan.Bawden@rfs.nsw.gov.au>; Kale Hardie-Porter <khardieporter@geolink.net.au>; M.E <trufflepig@bigpond.com>  
**Subject:** Pre-DA Application - 322 Stuarts Point Road, Yarrahapinni

To whom it may concern,

Please find attached a pre-DA Application Form and corresponding bushfire design brief for consultation with the RFS.

Please contact me on the number below if you have any queries.

Regards,

**Paul Creenaune**  
Senior Bushfire Consultant

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Please note I work on Monday, Tuesday and Wednesday.



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